NEGATION PATTERNS IN THE KWA LANGUAGE GROUP

by

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Abstract

There currently exists extensive literature written on the topic of negation but it has been only recently that studies of negation have begun to expand outside of the limited scope of Indo-European languages. Linguists are finding that certain patterns thought to be cross-linguistic occur mainly in this most heavily studied language family. The intent of this thesis is to survey the negation strategies in a collection of Kwa (Niger-Congo) languages in order to contribute to the literature on negation and tip the scales ever so slightly away from Indo-European. Commonly cited patterns such as Jespersen's cycle (Jespersen 1917) are almost entirely unattested in this language group. There is a consistent pattern of marking negation in Akan, Ewe, and the North Guang languages involving the use of a preverbal nasal morpheme. Interestingly three South Guang languages utilize instead a verbal prefix *bÉ-*. The Ga-Dangme languages stand out from other Kwa languages in their use of verbal suffixes rather than prefixes. The Ghana-Togo Mountain branch of the Kwa language group also does not rely on preverbal nasal negation marking.

1. Introduction

There is extensive literature written on the topic of negation but it has been only recently that studies of negation have begun to expand outside of the limited scope of Indo-European languages. Linguists are finding that certain patterns thought to be cross-linguistic occur mainly in this most heavily studied language family. The intent of this thesis is to survey the negation strategies in a collection of Kwa languages in order to contribute to the literature on negation and tip the scales ever so slightly away from Indo-European. Section 2 of the paper contains background information, first on previous work on negation in general and second on Kwa languages. Section 3 presents the data that has been collected on negation in Kwa languages. These languages include Akan, Ewe and a few other Gbe languages, ten Guang languages, seven

Ghana-Togo Mountain languages, and the two Ga-Dangme languages. Lastly, Section 4 contains

a summary of the patterns and generalizations about negation in the Kwa language group.

2. Background

2.1 Previous work on negation

As was mentioned above, the vast majority of the research on negation has focused on Indo-

European languages. A few notable exceptions are discussed in Kahrels & van den Berg (1994)

and Miestamo (2007). For example, two of the most talked about negation processes are negative

concord (discussed in Section 2.1.3) and Jespersen's cycle (discussed in Section 2.1.4). Both

processes are very common in the languages of Indo-European decent or languages that have had

extensive contact with this language family. This section will discuss these phenomena as well as

general distinctions made in terms of the scope and symmetry of negation.

2.1.1 Negation scope

When talking about the scope of negation, there are a number of different ways to classify

negation. One distinction that should be acknowledged is the long philosophical tradition that

holds that negation is ambiguous between internal and external readings (Miestamo 2009: 208).

Below is the well-known "King of France" example:

(1)   The King of France is bald
       The King of France is not bald

With internal negation (2a), the subject (the King of France) is interpreted as being outside the

scope of negation while external negation (2b) would interpret the subject as included in the

scope:

(2)   a.   Internal: The King of France is NOT[bald]
        b.   External: NOT[The King of France is bald]

Internal negation preserves the presuppositions of the corresponding affirmative while external

negation denies the presuppositions (Miestamo 2009: 209). In natural language, negation

typically does not affect the presuppositions of a sentence except in certain cases of

metalinguistic negation:

(3)   The King of France is bald
        The King of France is not bald *because* there is no King of France

                                    (Miestamo 2009: 222)

In this example, the fact that there is no King of France cancels the presupposition of the

corresponding affirmative. The philosophical tradition that assumes negation is ambiguous

between an internal and an external interpretation does not describe actual human language.

There is no ambiguity in *The King of France is not bald* as to what is being negated in most

contexts. Because this is an artificial distinction it will not be used to describe the negation

patterns in the Kwa languages described in this paper.

      Other distinctions that have been made when talking about the scope of negation are

sentential versus constituent negation and nexal versus special negation. Sentential negation

takes the whole sentence in its scope whereas constituent negation only applies to a particular

constituent (Miestamo 2009: 209). The example below demonstrates the basic distinction:

(4)   a.   Constituent negation   He is unhappy
        b.   Sentential negation   He is not happy

There is a noticeable semantic difference between examples (a) and (b) above. Example (4a)

involves the constituent negation of an adjective while (4b) involves negation of the sentence *He*

is happy. While also dependent on context, these two clauses do not encode identical information

and can be used to communicate different implications. For example, *He is unhappy* can be used

to entail a state of being sad or discontent while *He is not happy* is typically used to entail anger

by emphasizing that the subject is the opposite of happy.

Jespersen (1917) groups together sentential and constituent negation, instead

distinguishing between nexal and special negation. Miestamo defines nexal negation as negation

where the negative operator negates two ideas while special negation is where the negative

operator negates one idea (2009: 209). Special negation may be expressed by some modification

of the word (5a) or by the addition of *not* (5b).

(5)	Special negation	a.	unhappy
		b.	not happy
	Nexal negation	c.	he doesn't come
		d.	he doesn't come today (Jespersen 1917: 42-3)

According to Jespersen, in (5c) the two positive ideas *he* and *coming* are negated. In (5d) the

combination of the positive ideas *he* and *coming today* are negated.

This paper will be mostly concerned with what is called standard negation. Standard

negation is understood as the basic strategies languages use for negating declarative main

clauses. In general, standard negation can typically be expressed by negative particles, negative

verbs, or in the morphology of the verb (Payne 1985 cited by Miestamo 2009: 214). Negation

encoded by negative particles and auxiliary verbs is referred to as syntactic negation while

negation encoded through affixes, prosody, and reduplication is referred to as morphological

negation. We will find examples of both morphological and syntactic negation in Kwa.

2.1.2 Symmetric vs. asymmetric negation

Miestamo distinguishes two basic types of negative structures: symmetric and asymmetric

negation (2009: 215). Symmetric negative constructions only differ from the corresponding

affirmative in that there are one or more negative markers. This type of system is demonstrated

in the Spanish set below:

(6)   Spanish: *cantar* 'to sing'[1]

		AFFIRMATIVE		NEGATIVE
1SG	canto	'I sing'	no canto	'I don't sing'
2SG	cantas	'you sing'	no cantas	'you don't sing'
3SG	canta	's/he sings'	no canta	's/he doesn't sing'
1PL	cantamos	'we sing'	no cantamos	'we don't sing'
2PL	cantáis	'you(pl) sing'	no cantáis	'you(pl) don't sing'
3PL	cantan	'they sing'	no cantan	'they don't sing'

In asymmetric negation, the structure of the negative construction differs from that of the

corresponding positive construction in other ways in addition to the presence of the negation

marker.

Asymmetric negation can be divided into three subtypes: A/Fin, A/NonReal, and A/Cat.

In asymmetric subtype A/Fin, the finiteness of the lexical verb is reduced or lost in the negative:

(7)   Finnish (Miestamo 2009: 216)

    a.   laula-n   b.   e-n   laula
          sing-1SG[2]   NEG-1SG   sing.CNG
          'I sing.'   'I do not sing.'

In subtype A/NonReal negatives, negatives are obligatorily marked for a category indicating a

non-real state of affairs. In the example below, the hypothetical and negative constructions are

marked with irrealis:

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[1] In this example, accent marks correspond to the stress marks used in Spanish orthography. In the rest of the paper, accent marks correspond to tone.
[2] See page 71 for abbreviations.

(8)   Maung (Capell & Hinch 1970: 67 cited by Miestamo 2009: 216)

    a.   [3]ŋi-udba   b.   ni-udba-ji   c.   marig   ni-udba-ji
        1SG.3[4]-put   1SG.3-put-IRR.NPST   NEG   1SG.3-put-IRR.NPST
        'I put'   'I can put'   'I do/shall not put'

In the last subtype, A/Cat negatives, the grammatical category is marked differently in negative constructions than in affirmative ones:

(9)   Burmese (Cornyn 1944: 12-13 cited by Miestamo 2009: 216)

    a.   θwâ-dé   b.   θwâ-mé   c.   θwâ-bí   d.   ma-θwâ-bû
        go-ACT   go-POT   go-PRF   NEG-go-NEG
        'goes, went'   'will go'   'has gone'   'does/did/will not go,
                                                 has not gone'

Examples (9a)-(9c) demonstrate a few of the grammatical categories available to the Burmese verb phrase while example (9d) illustrates how the negative clause has a distinct category marking. The categories most often affected by A/Cat negatives are TAM and person-number-gender (Miestamo 2009: 217). Symmetric vs. asymmetric negation is a useful distinction for classifying negation strategies but it is not a perfect dichotomy in actual language. Kwa languages exhibit both patterns and some Kwa languages may provide reasons to expand the criteria.

2.1.3 Negative concord

Negative concord is defined by van der Auwera & Van Alsenoy as "a semantically single negation expressed both by a clause level negator and by a negative adverb, pronoun or determiner" (2016: 2). They provide the following non-standard English examples:

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[3] In the data provided, the morpheme '1SG.3' is realized [ŋi] in (9a) and [ni] in (9b) and (9c) but no explanation is provided for this difference.
[4] This is mostly like a reference to the object of 'put', but there is no reference to this object in the free translation provided.

(10) a. I ain't never been to jail.
   b. You ain't seen nothing yet.
   c. I can't get no satisfaction.

The clause level negator is *n't* and is attached to the verb. Example (10a) contains a negative adverb *never*, (10b) a negative pronoun *nothing*, and (10c) a negative determiner *no*. Both of the negative words in each sentence take part in a single negation. Negative concord is well attested in a large variety of languages. In the Indo-European language family, a majority of the languages exhibit negative concord, with Dutch, German, Swedish, and Norwegian, being a few notable exceptions (Zeijlstra 2007: 504).

There are different types of negative concord. Negative concord is often classified as either strict or non-strict. Example (11) below demonstrates a case of strict negative concord while example (12) demonstrates non-strict negative concord. In the Polish example below, in both (a) and (b), there is both a negative marker and a negative pronoun:

(11) Strict Negative Concord

   Polish (Haspelmath 1997: 201 cited by van der Auwera & Van Alsenoy 2016: 16)

  a. Nikt nie przyszedł
    nobody NEG came
    'Nobody came.'

  b. Nie widziałam nikogo
    NEG saw   nobody
    'I saw nobody.'

In Polish, negative concord is obligatory in that negative clauses must have both a clausal negative marker and the negative indefinite. In Spanish, the presence of negative concord depends on the word order:

(12)   Non-strict Negative Concord

   Spanish (Haspelmath 1997: 201 cited by van der Auwera & Van Alsenoy 2016: 16)

   a.   Nadie   vino
        nobody   came
        'Nobody came'

   b.   No   vi   a   nadie
        NEG   saw   to   nobody
        'I didn't see anybody'

If the negative indefinite, in this case *nadie* 'nobody', is preverbal, no negative marker is

necessary. If the negative indefinite occurs after the verb, a negative marker is required

preverbally. In languages that exhibit negative concord, strict negative concord is generally more

common that non-strict negative concord.

   In their survey of 179 languages, van der Auwera & Van Alsenoy (2013) found that

negative concord is most frequent in Eurasian languages, occurring in just over half of the

sample languages. Negative concord occurred in only a fifth to a quarter of the South-East Asian

& Oceanic, African, and South American languages surveyed. Only about a tenth of North

American languages exhibited negative concord and only about 5% of the Australian and Papua

New Guinea languages had this feature. Additionally, of the 26 non-Eurasian languages that

exhibited negative concord, they found that six were directly influenced by the negative concord

systems of a European language. Outside the reach of Indo-European languages, negative

concord is much less common. As we would expect based on this fact, we will find that negative

concord is uncommon in Kwa languages.

2.1.4 Jespersen's cycle

You cannot have a discussion about negation without talking about Jespersen's cycle. This

process, first described by Jespersen (1917), involves elements which were introduced into

negative clauses in order to strengthen the negation being reanalyzed as the primary markers of negation. According to Jespersen, there is a tendency to place the negative first or as soon as possible, often immediately before the word being negated (1917: 5). He goes on to claim that its position at the beginning of the sentence makes it more likely than elsewhere to weaken phonologically (Jespersen 1917: 6).

The process is most commonly cited using the development of negative markers in French. Miestamo (2007: 566) notes that negators are often ancient elements whose non-negative origin cannot be traced by historical and comparative means. Jespersen's cycle is the best-known process of negation marker development. The history of the negator *ne* can be traced as far back as Indo-European. Jespersen's cycle traces the development of the negative marker from Latin to modern French. This process is outlined in examples (17) - (21) below:

(17)　Latin (Jespersen 1917:7)
　　　ne　　　dic-o
　　　NEG　　　say-1SG
　　　'I do not say.'

The *ne* form was felt to be too weak and was strengthened by the addition of *oenum* 'one thing', resulting in *ne oenum* 'not one thing'. These forms merged to form *non*:

(18)　Latin (Jespersen 1917:7)
　　　non　　　dic-o
　　　NEG　　　say-1SG
　　　'I do not say.'

In Old French, *non* becomes *nen* and then further weakens to *ne*:

(19)　Old French (Jespersen 1917:7)

　　　jeo　　　ne　　　di
　　　1SG　　　NEG　　　say.1SG
　　　'I do not say.'

This version of *ne* was also analyzed as too weak and it is strengthened by the addition of words such as *pas* 'a step' or *mie* 'a crumb'. After this, *pas* began to grammaticalize and lose the semantic content that restricted it to clauses having to do with walking. It has become an obligatory marker of negation in French:

(20) Written French (Jespersen 1917:7)

      je   ne   dis   pas
      1SG   NEG   say.1SG   NEG
      'I do not say.'

The cycle has continued in modern spoken French; the word *ne* is too weak and *pas* has been reanalyzed as the obligatory negative component:

(21) Spoken French (Jespersen 1917:7)

      je   dis   pas
      1SG   say.1SG   NEG
      'I don't say'

There is disagreement as to how to best break Jespersen's cycle into stages. Some proposals involve three stages:

(22) stage I   NEG VERB
      stage II   NEG VERB NEG
      stage III   VERB NEG   (Willis et. al. 2013: 16)

This is the simplest and likely most idealized representation. The stages refer to particular construction types but this version doesn't represent the instability of the stages nor what happens between them as they transition from one to the next. The following breakdown better describes the intermediate stages:

(23) stage 1   NEG VERB
      stage 2   NEG VERB (NEG.EMPH)
      stage 3   NEG VERB NEG
      stage 4   (NEG) VERB NEG
      stage 5   VERB NEG   (Willis et. al. 2013: 18)

These representations are to an extent a matter of preference and do not reflect different conceptualizations of the processes that are taking place. Languages in which the cycle occurs vary significantly in the rate at which they progress through it.

Dixon (2012) suggests that there is potential for yet another stage in the cycle that returns negative marking to its original position before the verb. In a number of French-based creoles, the negative marker *pa* (from *pas*) has moved to the position before the verb:

(24) Mauritius Creole (Bernini & Ramat 1996: 35 cited by Dixon 2012: 104)

me   mōte   **pa**   pe   travaj
my   watch   NEG   PROG   work
'My watch doesn't work.'

The potential developments in Jespersen's cycle could be represented as follows:

(25) stage i   NEG VERB
      stage ii   NEG VERB NEG
      stage iii   VERB NEG
      stage iv (i) NEG VERB

Unlike the other stages discussed above, there is not at this time data to support an intervening stage NEG VERB (NEG), as the negator shifts back to the preverbal position. This is a logical next stage based on Jespersen's observation, mentioned earlier, of the tendency to place the negative marker first or as soon as possible, often immediately before the word being negated.

It is important to consider what motivation a language would have for undergoing a cycle such as this. Why does a marker of emphatic negation come to replace the original marker? Jespersen's presentation of the cycle as described above implies a pull-chain scenario in which the change is motivated by the phonological weakness of the preverbal negation (Willis et. al.

2013: 15). More recently the focus has been on the overuse of the new negator over time reducing its emphatic nature. In this push-chain scenario, the preverbal marker is lost when the new marker takes over the function of expressing negation (Willis et. al. 2013: 16). More mixed approaches argue that a morphological weakening of the preverbal element, the establishment of a new negator, and the eventual elimination of the preverbal element, work together to motivate the process.

According to Willis et. al, Jespersen's cycle has occurred throughout the languages of western Europe as well as in a number of Afro-Asiatic and north African languages, such as Berber and Coptic (2013: 8). While traces of it have been found sporadically in Niger-Congo languages in central and west Africa, outside of Europe, Jespersen's cycle has been identified less frequently and may be much less common (Willis et. al. 2013: 9). For this paper, the Kwa languages under study will be surveyed to determine whether or not Jespersen's cycle is a feature that they have in common.

2.2 Kwa language background

2.2.1 Classification and location

The Kwa language group (kwav1236)[5] is a member of the Niger-Congo language family. The following chart is an abridged representation of the Niger-Congo language family:

(26) Abbreviated Niger-Congo family tree: Kwa

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[5] Kwa Glottocode (Hammarström et. al 2016)

The term 'Kwa' was adopted by linguists near the end of the 19th century in order to group Akan, Ga, and Ewe together (Dakubu 2009: 630). There is some debate as to how to best classify these languages and there is even doubt as to whether these languages can actually be considered a genetic group.[6] The intent of the diagram above (and other diagrams to follow) is not to propose a particular classification but simply to provide the reader with a basic idea of the group of languages under study. The data collected for this study, and the groundwork that it begins to lay, may lead to more clarity on the topic of classification in the future.

The Kwa languages can be found in the Ivory Coast, Ghana, Togo, Benin and on the western border of Nigeria. The group is bordered to the west by the Kru language group, to the North by the Gur language group, and to the east by the Benue-Congo language group. More specific background on each language and language subgroup being surveyed will be provided in the section devoted to the language or language subgroup.

2.2.2 Phonology

This section provides a brief summary of some of the phonological patterns typically found in Kwa languages. The data gathered for this paper is from published sources and is presented phonetically by some authors and orthographically by others. Due to the nature of the data collected the treatment of phonology in this paper is necessarily limited.[7]

Kwa languages tend to include the plosives: /p/, /b/, /t/, /d/, /k/, and /g/; the nasals: /m/, /n/, /ɲ/, /ŋ/; the fricatives: /f/, /s/; approximants: /j/, /l/ and/or /r/; and semivowels: /y/ and /w/. Some of languages contain additional fricatives such as /ɸ/, /β/, /v/, /z/, /ʃ/, /x/, and /ɣ/. It can be noted here that voiceless fricatives are less common that voiced ones. Other common phonemes include labiovelar sounds such as /kp/, /gb/, and /ŋm/ as well as the voiceless affricate /tʃ/. As

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[6] See Stewart (1989) for more on this.
[7] For a thorough treatment of phonology in the Kwa subgroup, Guang, see Snider (1990).

with the fricatives, the voiced affricate /dʒ/ is less common. Ewe contains a retroflex /ɖ/ but retroflex consonants are not common in this language group. A common feature in the Kwa consonant systems is labialization. The consonants /pʷ/, /bʷ/, /fʷ/, /sʷ/ and /kʷ/ are common.

Vowel systems in Kwa typically consist of either a nine or seven vowel system. The nine-vowel systems consist of the [+ATR] vowels /i/, /e/, /u/, and /o/ and the [-ATR] vowels /ɪ/, /ɛ/, /a/, /ʊ/, and /ɔ/. The seven vowel systems consist of the same [+ATR] vowels /i/, /e/, /u/, and /o/ but only the [-ATR] vowels /ɛ/, /a/, and /ɔ/. As can be gathered from the description of the vowel system, [ATR] is a relevant feature. [ATR] harmony is very common throughout the Kwa languages. While a slight over-generalization, in can be stated that affixes typically harmonize with stems. Some of these languages have phonemic nasal vowels. Additionally, it is important to note that in some of the Kwa languages vowel length is contrastive. Long vowels do not typically occur in closed syllables.

The predominant syllable structure in Kwa is CV(C). Coda consonants are often limited to nasals and word-final glottal stops. Onsets with CC consonant clusters occurs in some languages but this is usually highly limited if it is allowed at all. Another feature typical of most Kwa languages is word-initial syllabic nasals. This feature will occur frequently in the data presented in the next section as it is common in negation marking.

The last important feature of Kwa phonology that needs to be mentioned is tone. All of the Kwa languages are tonal. That being said, tone is often inconsistently marked in the grammatical descriptions utilized for this thesis. Tone will be addressed as it is relevant to the negative markers as much as possible.
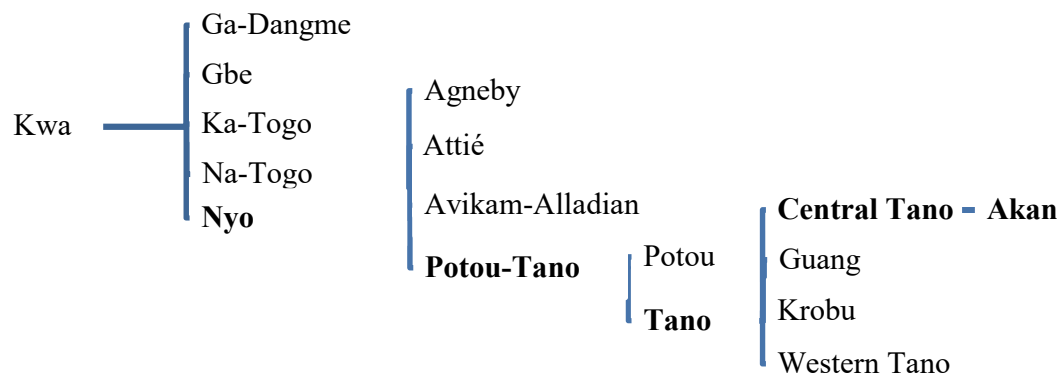
3. Presentation of data and analysis

The negative morphemes presented here have largely been collected from the grammatical descriptions written by other linguists. This is important to note because of the way the negative morphemes are represented as either words or affixes. The treatment here relies somewhat on the conventions used by the previous presentations of the data. That being said, some cases are clearer than others and any disagreements with the original analysis will be noted.

3.1 Akan

Akan [aka][8] is a Central Tano language spoken in Ghana. Akan can be placed within the Kwa language group as follows:

(27) Abbreviated Kwa family tree: Akan[9]

Kwa
- Ga-Dangme
- Gbe
- Ka-Togo
- Na-Togo
- **Nyo**
  - Agneby
  - Attié
  - Avikam-Alladian
  - **Potou-Tano**
    - Potou
    - **Tano**
      - **Central Tano** – **Akan**
      - Guang
      - Krobu
      - Western Tano

This Kwa language has a number of well-known varieties. The first variety under study in this section will be Kwawu Akan. Like most other Kwa languages, Akan has a basic SVO constituent order (illustrated in (28) below).

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[8] When a language is introduced, the ISO 639-3 code for the language is provided in square brackets (e.g. Akan [aka], English [eng]).
[9] Based on Hammarström et. al (2016)

(28) Akan (Campbell 1988: 214)

yaw   hu-u   no
Yaw   see-PAST   him
'Yaw saw him'

All verbs inflect for negation in the same way, using a low tone nasal prefix, $\grave{N}$-:

(29) Akan (Campbell 1988: 214)

yaw   **n**-hú-ù   no
10

Yaw   NEG-see-PAST   him
'Yaw hasn't seen him'

The negative prefix is a homorganic nasal that assimilates to the place of articulation of the

following consonant. This appears to be a clear case of morphological negation with the

preverbal negative marker acting as an affix rather than a separate word.

Like Kwawu Akan, other varieties of Akan, including Fante, Akuapem, and Asante, also

employ a homorganic verbal prefix. Abakah (2005) describes the negative morpheme in Akan as

a toneless[11] syllabic nasal (N). In the example below the prefix is realized as [ǹ-] when used with

the verb 'sell':

(30)   Negation in other varieties of Akan (Abakah 2005: 124)

	FANTE	AKUAPEM	ASANTE	*Gloss*
a.	mò-**ǹ**-tɔ́ń	mì-**ǹ**-tɔ́ŋ	mì-**ǹ**-tɔ̃̋ɔ̃̋	I do not sell
b.	ì-**ǹ**-tɔ́ń	wʊ́-**ǹ**-tɔ́ŋ	wʊ́-**ǹ**-tɔ̃̋ɔ̃̋	you do not sell
c.	ɔ̀-**ǹ**-tɔ́ń	ɔ̀-**ǹ**-tɔ́ŋ	ɔ̀-**ǹ**-tɔ̃̋ɔ̃̋	s/he does not sell
d.	jɛ̀-**ǹ**-tɔ́ń	jɛ̀-**ǹ**-tɔ́ŋ	jɛ̀-**ǹ**-tɔ̃̋ɔ̃̋	we do not sell

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[10] Tone appears to be inconsistently marked on the examples in Campbell (1988). In (28), no tone has been marked
and in (29) tone is marked on the verb but not elsewhere.
[11] Abakah proposes that the N- prefix may have an underlying high tone in all dialects, see Abakah (2005) for
details.

All varieties of Akan employ morphological negation through the use of verbal prefixes. This morpheme is clearly a prefix, rather than a particle, because it occurs prefixed immediately to the stem while the tense/aspect marking is prefixed to the negative marker, further from the stem.

Negation in simple past tense clauses is symmetric in that the only thing that changes is the addition of the negative prefix to the verb. That being said, due to its low tone, the nasal prefix does affect the tone pattern of the entire phrase.[12] Tone is not a criterion Miestamo (2009) utilizes to distinguish types of asymmetry and in these examples the tone shift appears to be largely a phonetic rather than grammatical effect.

While negative asymmetry doesn't occur in the negation of simple past tense clauses, it does occur in other tenses and aspects in Akan. In negative clauses, the distinction between the future tense and progressive aspect is neutralized. In non-negative sentences, future tense is marked on the verb by a prefix *bέ-*, and progressive aspect by the verbal prefix *re-*. In negative contexts, only *re-* is used:

(31)   Akan (Campbell 1988: 210)

kofí   **re-ǹ**-kɔ́   kùmáse
Kofi   FUT/PRES-NEG-go   Kumase
'Kofi will not go to Kumase.'
or 'Kofi is not going to Kumase.'

While this is clearly a case of negative asymmetry, it does not fit nicely into one of Miestamo's categories. It most closely resembles the subtype A/Cat, where marking of grammatical categories differs from their marking in affirmatives, usually affecting TAM and person-number-gender distinctions. Perhaps a more specific category is warranted, such as A/Neut, which would indicate that certain verbal tense/aspect contrasts are neutralized in negative contexts. This is supported by Dixon's generalization that there are often fewer tense/aspect choices in a negative

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[12] For a full treatment of the tone rules in Akan, see Campbell (1988).

clause than in a positive one (2012: 129). For now, this will be treated as a case of A/Cat negation.

Another feature that Akan has in common with other Kwa languages is its use of serial verb constructions (SVCs). A serial verb construction is a series of verbs acting together as a single predicate and which is conceptualized as a single event (Aikhenvald 2006). In Akan, the first verb in a non-negative SVC is marked for tense or aspect and the second verb in the SVC is marked with a consecutive prefix:

(32)   Akan (Campbell 1988: 211)

kofí   bɛ-yɛ   àdwúma   **a**-má   yàw
NAME   FUT-do   work   CONS-give   Yaw
'Kofi will work for Yaw.'

Like in basic negative clauses, when a SVC with future tense or progressive aspect is negated, the *bɛ́-*/*re-* distinction is neutralized. Each verb in the SVC is marked for negation. The consecutive prefix is replaced by the negative prefix as these prefixes do not co-occur.

(33)   kofí   **re-ǹ**-yɛ́   àdwúma   **m̀**-má   yàw
NAME   FUT/PRES-NEG-do   work   NEG-give   Yaw
'Kofi will not work for Yaw.'
or 'Kofi is not working for Yaw.'

Based on these examples, there is negative asymmetry occurring in future and progressive clauses. The closest asymmetry category would be A/Cat in that the grammatical category of the verbs is changing. In single verb clauses, the distinction between future tense and progressive aspect is neutralized and in serial verb constructions the same occurs with the additional change of the consecutive prefix being replaced by the negative prefix.

3.2 Ewe

Ewe [ewe] is a member of the Gbe subgroup and is spoken in south-eastern Ghana and southern Togo. The chart below illustrates Ewe's genetic relationship to the rest of Kwa but is not meant to be an exhaustive representation of the Gbe language subgroup:

(34) Abbreviated Kwa family tree: Ewe[13]
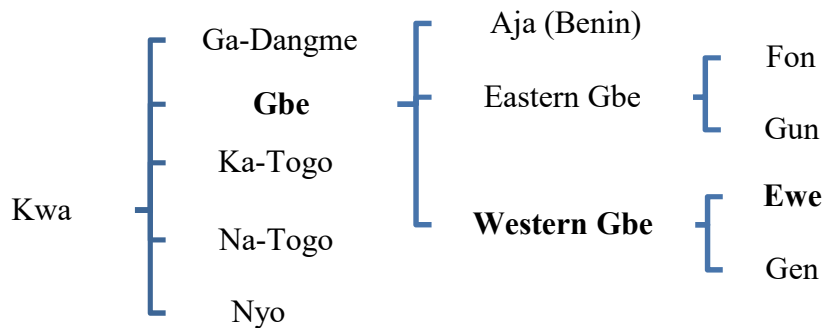
In Ewe, the basic word order is SVO which is demonstrated by the examples below.

(35)   Ewe (Nurse n.d.:1)

a.   nyɔ́nu=a   ɸle   dze
      woman=DEF   buy.FAC   salt
      'The woman bought salt.'

b.   Kofí   tási   ná   akutsá   m   etsɔ
      Kofi   aunt   give.FAC   sponge   me   yesterday
      'Kofi's aunt gave me a sponge yesterday.'

If an auxiliary verb is present, it immediately precedes the main verb. In the progressive and prospective aspects, instead of a S(Aux)VO constituent order, the ordering is instead S(Aux)OV and the verb appears to be a verbal noun (Nurse n.d):

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[13] Based on Hammarström et. al (2016)

(36)   Ewe (Nurse n.d.: 2)

    a.   me=le   dɔ́   wɔ-m̄
       1SG=BE.IPFV work   do-PRG
       'I'm working.'

    b.   me=le   dɔ́   wɔ-gé
       1SG=BE.IPFV work   do-PROS
       'I am going to/intend to work.'

Ewe, like Akan, allows serial verb constructions:

(37)   Ewe (Nurse n.d.: 3)

    míí   ɖa   fufu   ɖu
    we   cook   fufu   eat
    'We cooked fufu and ate it.'

All negation in Ewe is encoded by the preverbal particle *mé* and a clause-final negative

particle *o*:

(38)   Ewe (Nurse n.d.: 8)

    a.   atí   lá   **mé**   kɔ́   **o**
       tree   DEF   NEG   tall   NEG
       'The tree is not tall.'

    b.   nye   **mé**   ga   le   tsitsi-m̄   **o**
       1s   NEG   ITR   be.IPFV   grow.grow-PRG   NEG
       'I'm no longer growing.'

    c.   **mé**   ga   yi   **o**
       NEG   ITR   go   NEG
       'Don't go!'

    d.   wó   **má**[14]   ga   yi   **o**
       3p   NEG.POT   ITR   go   NEG
       'They shouldn't go.'

---

[14] *ma* is the combination of *me* + *a* (Nurse n.d.: 8). These should both be analyzed as clitics.

In Ewe, negation is expressed by the bipartite morpheme demonstrated in (38) above. The morpheme *me* is cliticized[15] onto the first element of the verb phrase while *o* occurs at the end of the clause but before sentence final particles (Adjei 2014: 34). Unlike Akan, in a negated SVC, the negative is only stated once before the first verb:

(39)　Ewe (Nurse n.d.: 7)

Kofi　**mé**=mli　　kpé=á　　vέ　　**o**
Kofi　NEG=roll.FAC　stone=DEF　come　NEG
'Kofi didn't roll the stone here.'

This system of double negation closely resembles the bipartite negation seen in stage 3 of Jespersen's cycle. In order to determine whether or not this is a case of Jespersen's cycle additional historical and comparative data is needed. Adjei (2014) provides an interesting account of children's speech. If either of the Ewe negation markers were being eroded, children's speech would be a good place to look for variation if there was any. Adjei's (2014) data contains only negative clauses with both negative particles. As far as current data shows, the bipartite system of negation in Ewe is in no danger of disappearing. Possible comparative evidence for the existence of Jespersen's cycle in Gbe languages can be seen by comparing Ewe with a couple of its fellow Gbe languages.

　　　Like Ewe, Gen (or Gengbe) [gej], has a bipartite negation marking system.

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[15] Adjei (2014) describes the *mé* negation marker as a clitic but Nurse (n.d.) does not mark the morpheme as a clitic in the examples in 38.

(40) Gen (Samson Lotven, personal communication, April 7, 2017)

   a.   ɲɛ̃   **mṹ**   jì   nã̀   ò
       1SG   NEG   go   HAB   PART
       'I don't go.'

   b.   ɲɛ̃   **mǎ**   jì   ò
       1SG   NEG.POT   go   PART
       'I won't go.'

In (40b), the negative marker *mṹ* combines with the potential marker to form *mǎ*, encoding both negation and potentiality. The phrase-final marker, glossed PART (PRT elsewhere in this paper) by Lotven, must occur with the preverbal negative marker and cannot be left out. The first-person-singular subject pronoun is segmentally identical to the negative marker, distinguished by having a low tone: *mù*. In negative clauses, like those in (40) above, a different version of the pronoun is used. This type of negative asymmetry can be classified as A/Cat, which incorporates person-number-gender distinctions in negative clauses.

      Fon (or Fongbe) [fon] is another Gbe language and is spoken in southwestern Benin. This language, as is expected in a Kwa language, exhibits an SVO constituent order:

(41) Fon (Lefebvre 1991: 23)

   Kɔ̀kú   gbà   mɔ́tò
   NAME   destroy   car
   'Koku destroyed cars.'

Unlike Ewe, Fon does not exhibit bipartite negation. Instead, this language only has a post-verbal negative particle:

(42) Fon (Lefebvre 1991: 27)

   Kɔ̀kú   wá   **ǎ**
   NAME   arrive   NEG
   'Koku has not arrived.'

This particle differs from Akan and many other Kwa languages first in that is it post-verbal and second in that it is not a nasal morpheme. As more data is presented we will see that a preverbal negative morpheme is the most common marker of negation in Kwa languages. For example, Gun [guw], another Gbe language which is spoken near the southeast border of Benin and Nigeria, exhibits this pattern:

(43)   Gun (Aboh 2009: 5)

Sɛ́sínú!	À	**má**	ná	sɔ̌	kùn	mótò	cè	sɔ́	àdó	égbè
Sesinou	2SG	NEG	FUT	again	drive	car	1SG.POSS	hit	wall	today

'Sesinou! You will not again drive my car hit (i.e. into) the wall today!'

This example indicates that the negative marker is a particle rather than a prefix because additional words can occur between the negative marker and the verb stem. That being said, it is also possible that the negative marker could be behaving as a clitic, as was seen in Ewe (see example 39). Additional data would be required to determine whether the negative marker cliticizes onto the first element of the verb phrase or is a distinct phonological word.

Both Fon and Ewe have a vowel sound as the negation marker after the verb while both Ewe and Gun have *mV* preverbal negation marking. When comparing Fon, Gun, and Gen to Ewe, we see negation patterns that resemble the stages in Jespersen's cycle:

(44)

Gun	NEG VERB	STAGE I
Ewe/Gen	NEG VERB NEG	STAGE II
Fon	VERB NEG	STAGE III

While Ewe's preverbal negative marker is not currently showing any signs of eroding, it is possible that Fon did have one. Without historical data, it is difficult to say for sure but this comparative data does seem to indicate that Gun may be in the first stage of Jespersen's cycle, Ewe in the middle stage, and Fon in the final stage. Another proposal could be that Ewe represents an older stage in the development of negative markers while Gun and Fon represent alternative methods that have developed for reducing the negative marking. Double negation is

not common in Kwa languages and frequent contact with other languages of the group may wear

away one marker or the other.

3.3 Guang languages

The Guang languages are spoken largely in Ghana, concentrated in the southeast around the

Volta lake region. As can be seen in the map below, Guang languages can also be found in Togo

and Benin:

(45) Distribution of Guang languages in Ghana, Togo, and Benin[16]
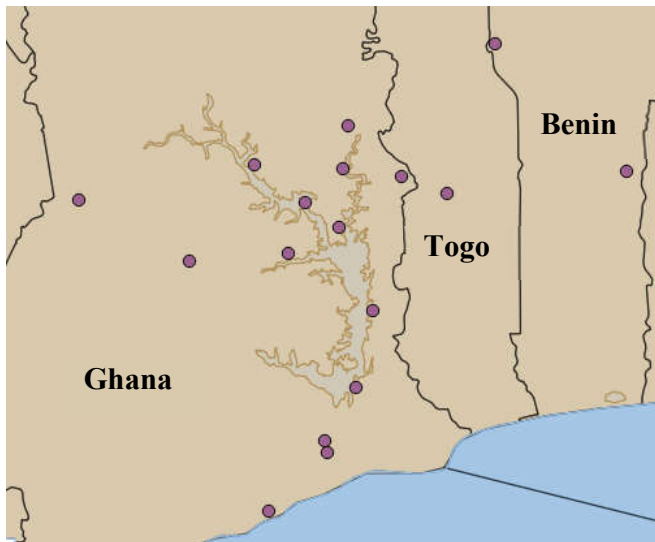
The Guang languages are classified under the Tano branch of the Kwa language group. The

following chart breaks down the subgroup:

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[16] All of the maps used in this paper have been created using QGIS software. The coordinates for the languages were obtained from Glottolog 2.7 (Hammarström et. al 2016).

(46) Abbreviated Tano family tree: Guang[17]
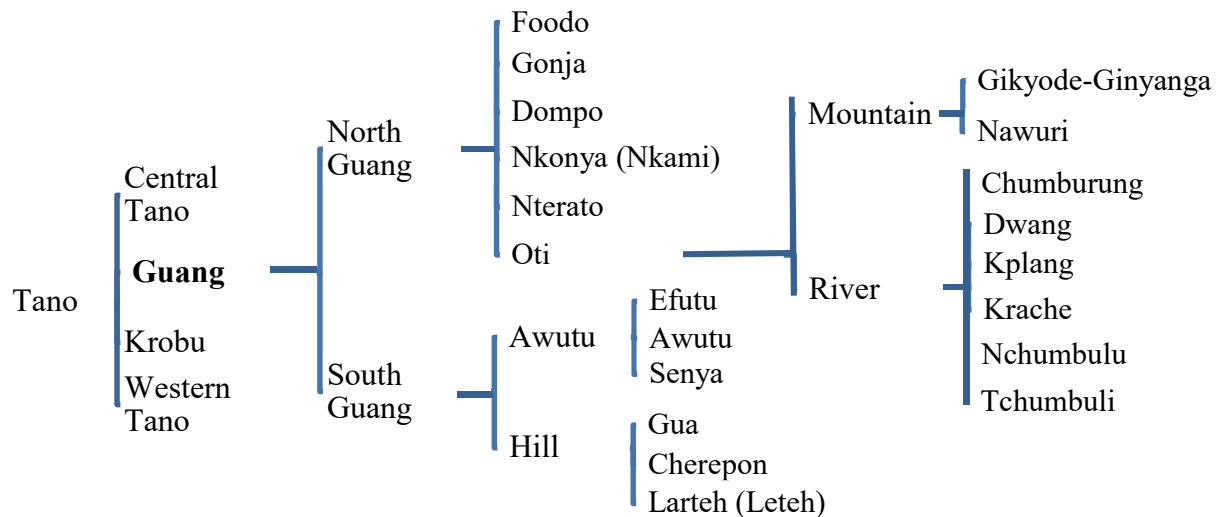
Like the other Kwa languages surveyed so far, Guang languages exhibit an SVO basic constituent order. The examples in (47) have been provided to illustrate the consistent word order across the branches of Guang:

(47) a.   Nkami (Akanlig-Pare & Asante 2016: 38)

   Otu   lὲ-dʊ   oyi
   Otu   PRF-climb   tree
   'Otu has climbed a tree.'

  b.   Krache (Abunya 2010: 110)

   Kofi   kέ-gyì   Ama
   Kofi   FUT-know   Ama
   'Kofi will know Ama.'

  c.   Leteh (Ansah 2015: 35)

   Kofi   bὲ-sú   Ama
   Kofi   FUT-send   Ama
   'Kofi will send Ama.'

---

[17] Based on Hammarström et. al (2016).

According to Dolphyne & Dakubu (1988: 84) the Guang languages consistently mark negation "by means of a prefix, almost invariably consisting of *m* plus a vowel, that usually precedes the tense/aspect markers." This is generally true of the North Guang languages but is less consistently true of the South Guang languages. The Guang languages vary in whether they employ morphological or syntactic negation to encode sentential negation. The discussion of Guang languages has been broken into two sections. Section 3.3.1 will discuss negation patterns in the North Guang languages Nkami, Foodo, Krache, Gonja, Chumburung, and Nawuri. Section 3.3.2 will cover the South Guang languages Efutu, Leteh, Cherepon and Gua.

3.3.1 North Guang

The North Guang languages generally follow Dolphyne & Dakubu's (1988) generalization, marking negation with an /m-/ prefix, often with a vowel. The North Guang languages seem to employ mostly morphological negation but this is not always clear from the data provided. As was mentioned earlier in the paper, the negative morphemes presented here have been collected from the grammatical descriptions written by other linguists. It can be difficult to determine solely based on these analyses whether a particular morpheme in a given language should be considered as an affix or a separate word. The representations of the data are often presented orthographically rather than phonetically. There is an orthographic tendency to represent certain preverbal morphemes as separate words when they would be better treated as affixes or clitics. The treatment here relies somewhat on the conventions used by the previous presentations of the data.

Nkami (or Nkonya) [nko] is a North Guang language that exhibits a clear case of morphological negation in the form of a negative verbal prefix:

(48) Nkami negative verbal prefixes

    mʊn-   Past

    mʊnɛ-   Progressive

    mʊntɪ-   Perfect

    mà-   Future

    má-   Habitual

Nkami differs from Akan in that it has different forms of the negative verbal prefix for different tenses and aspects. The future and habitual negatives in Nkami differ only in terms of tone:

(49) Nkami (Akanlig-Pare & Asante 2016: 42)

a. Kofi   **mà**   yɪrɪ   mʊ
NAME   NEG.FUT   stand   there
'Kofi will not stand there.'

b. Kofi   **má**   yɪrɪ   mʊ
NAME   NEG.HAB   stand   there
'Kofi does not stand there.'

The future and habitual negatives are expressed by the same segment /ma/ and the future versus habitual distinction is marked by a tonal morpheme. Nkami also exhibits symmetrical negation:

(50) Nkami (Akanlig-Pare & Asante 2016: 33) [18]

a. be-be-tʃu   mʊ.
3PL-FUT-lift   3OBJ
'They will lift her up.'

b. bɛ-**ma**-tʃu   mʊ.
3PL-FUT.NEG-lift   3OBJ
'They will not lift her up.'

The only difference in this set is that the third person plural pronoun is realized as [be] in (50a) and [bɛ] in (50b). This occurs because the /a/ in the future negative prefix in (50b) blocks the [+ATR] spreading that occurs in (50a).

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[18] The tone is not provided for these examples. The negative future has a low tone, as demonstrated by example (48). The data provided does not illustrate how the tones interact with their environment.

Foodo [fod] is another North Guang language that has been analyzed as having negative verbal prefixes.

(51)   Foodo negative verbal prefixes
        maN-   Perfective
        mÈ-nÉ-   Imperfective
        má   Future

In Foodo, the future negative prefix is consistently realized as [máá-] (example (52a) below) while the realizations of the perfective and imperfective negative prefixes are determined by the phonetic context:

(52)   Foodo (adapted from Plunkett 2009: 129) [19]

    a.   FUTURE NEGATIVE

      ɔ̀-ɲí-ḿ   **máá-**↓**náánáá**   ɔ̀-ɲí-ḿ   ↓**máá-wù**
      CP-man-NSF   NEG.FUT-go   CP-man-NSF   NEG.FUT-see
      'The man will not go.'   'The man will not see.'

    b.   PERFECTIVE NEGATIVE

      ɔ̀-ɲí-ḿ   **màǹ-náá**   ɔ̀-ɲí-ḿ   **màŋ̀-wù**
      CP-man-NSF   NEG.PFV-go   CP-man-NSF   NEG.PFV-see
      'The man did not go.'   'The man did not see.'

    c.   IMPERFECTIVE NEGATIVE

      ɔ̀-ɲí-ḿ   **mè-nɛ́ɛ́-**↓**náánáá**   ɔ̀-ɲí-ḿ   **mè-néé-wù**
      CP-man-NSF   NEG-IPFV-go   CP-man-NSF   NEG-IPFV-see
      'The man is not going.'   'The man is not seeing.'

In (52b) above, the perfective negative prefix *maN-* contains a homorganic nasal and is realized as [màǹ-] before /n/ and [màŋ̀-] before /w/. In (52c), the imperfective prefix *mÈ-nÉ-* is realized first as [mè-nɛ́ɛ́-] and second as [mè-néé-] agreeing with the [ATR] value of the stem.

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[19] Class prefix glossing in Plunkett (2009) is complex and confusing without sufficient contextualization and so has been simplified in the examples used in this paper.

Krache [kye] (also known as Krachi or Kaakyi) is another North Guang language that exhibits negative nasal prefixes. Abunya (2010) defines the negative prefixes as follows:

(53) Krache negative verbal prefixes (Abunya 2010)

m-	Future
ḿ-	Past
ḿ-	Progressive
ḿpὲ	Perfect
an-	Imperative/optative
àá-	Habitual

The future tense marker is /kÉ-/ and the negative future tense marker is /mÉ-/. The examples below demonstrate the future and negative future:

(54) Krache (Abunya 2010: 110)

	FUTURE			NEGATIVE FUTURE	
a.	àlí-**ké**-yɔ̀	obuase	b.	àlí-**mé**-yɔ̀	obuase
	1PL.SUBJ-FUT-go	house[20]		1PL.SUBJ-NEG.FUT-go	home
	'We will go home.'			'We will not go home.'	
c.	bὲ-**kɛ́**-tɛnsu		d.	bὲ-**mɛ́**-tɛnsu	
	3PL.SUBJ-FUT-forget			3PL.SUBJ-NEG.FUT-forget	
	'They will forget.'			'They will not forget.'	

In this example, the tone pattern of the phrase as a whole is unchanged by negation in this case but we will find that this is not always the case.

In Krache, the past tense is typically encoded by a high tone /É-/ prefix. In the negative past, the past tense prefix is replaced by a high tone syllabic homorganic nasal which is prefixed to the verb stem.

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[20] Abunya (2010) glosses this 'house' and 'home' in the free translation and in other examples (see 54b).

(55) Krache (Abunya 2010: 113, 115)

	PAST			NEGATIVE PAST	

a. Ama ɛ́-kpísáɋ̀
  Ama PST-sneezed
  'Ama sneezed.'

b. Ama ɋ́-kpísáɋ̀
  Ama NEG.PST-sneeze
  'Ama did not sneeze.'

c. gyoro wʊ́ é-wú
  dog DET PST-die
  'The dog died.'

d. gyoro wʊ ń-wú
  dog DET NEG.PST-die
  'The dog did not die.'

e. ó-múɋà akontɪ
  3SG.SUBJ.PST-kneel down
  'S/he knelt down.'

f. ò-ḿ-mùɋá akontɪ
  3SG.SUBJ.PST-NEG[21]-kneel down
  'S/he did not kneel down.'

Like the negative future, the negative past construction is straightforward, with the only change being the replacement of the past marker with the negative past. One noteworthy difference is that the negative past marker carries the same high tone as the affirmative past marker and so does affect the tone pattern of the negated phrase as can be seen in (55f).

In the affirmative, the progressive aspect is encoded by a similar prefix to the past tense and is distinguished only by having a low tone instead of a high tone. In the negative progressive, a high-tone bilabial nasal /ḿ-/ is prefixed to the low-tone /È-/ progressive prefix.

(56) Krache (Abunya 2010: 117-8)

	PROGRESSIVE		NEGATIVE PROGRESSIVE	

a. Yaw è-fùkí
  Yaw PROG-jump
  'Yaw is jumping.'

b. Yaw m-é-fùkí
  Yaw NEG-PROG-jump
  'Yaw is not jumping.'

c. kegyifɔrɪ wʊ́ ɛ̀-dɪdɪ
  child DET PROG-sleep
  'The child is sleeping.'

d. kegyifɔrɪ wʊ́ m-ɛ́-díɪdɪ
  child DET NEG-PROG-sleep
  'The child is not sleeping.'

---

[21] Gloss for the negative marker was left out Abunya (2010).

In this example, when the negative marker is prefixed to the progressive prefix, the high tone of the negative replaces the low tone of the progressive marker. Other than the effect on the tone pattern, the change from affirmative to negative is largely symmetric.

The perfect aspect is marked by the prefix /ɛ́kà-/ and the negative perfect is marked by the prefix /ḿpɛ̀-/, both with a high low tone pattern:

(57)   Krache (Abunya 2010: 115)

	PERFECT				NEGATIVE PERFECT		
a.	ɔdɔɔpʊ	wʊ́	**ɛ́kà**-bà	b.	ɔdɔɔpʊ	wʊ́	**ḿpɛ̀**-bà
	farmer	DET	PERF-come		farmer	DET	NEG.PERF[22]-come
	'The farmer has come.'				'The farmer has not come.'		

Like the previous examples, the negative of the perfect aspect is symmetric.

The negative habitual is the only negative prefix in Krache that does not typically involve a nasal phoneme. The habitual is marked by a /ǐ-/ morpheme with a rising tone and the negative habitual is typically encoded by a long /àá-/ morpheme as is demonstrated by (58b and d) below:

(58)   Krache (Abunya 2010: 112)

	HABITUAL					NEGATIVE HABITUAL			
a.	Kofi	**í**-kyá			b.	Kofi	**àá**-kyà		
	Kofi	HAB-dance				Kofi	NEG.HAB-dance		
	'Kofi dances.'					'Kofi does not dance.'			
c.	Kofi	**í**-nyíŋí	ɔtɛ	wʊ́	d.	Kofi	**àá**-nyíŋí	ɔtɛ	wʊ́
	Kofi	HAB.remember	story	DET		Kofi	HAB.remember	story	DET
	'Kofi remembers the story.'[23]					'Kofi does not remember the story.'			
e.	Kwaakru	**í**-nyí	Ama		f.	Kwaakru	**ǹ**-nyì	Ama	
	Kwaakru	HAB-know	Ama			Kwaakru	NEG.HAB-know	Ama	
	'Kwaakru knows Ama.'					'Kwaakru does not know Ama.'			

---

[22] This is glossed only 'NEG' in the data.

[23] There are errors in glossing and free translation in original paper. (58c) is missing a gloss for ɔtɛ 'story'. The free translation provided for (58c) is 'I remember the story' and (58d) is 'Kofi remembers the story.'

There is a single exception to the use of the long /àá-/ as the negative habitual prefix as shown in (f) above. In this example, the verb *ɲyi* 'know' takes a nasal /n-/ prefix. No additional data is provided on what types of verb take this prefix or what grammatical conditions require it.

The negative imperative and the negative optative utilize the marker /aN-/. According to Abunya's (2010) analysis, it is prefixed to the second person singular subject /f/ to create the compound prefix /faN-/. Typologically, few Guang languages have prefixes consisting of a single non-nasal consonant, so this analysis may require additional review. The examples below demonstrate the use of the negative imperative:

(59)   Krache (Abunya 2010: 118-9)

IMPERATIVE

a.	kyà!	c.	yɔ̀!	e.	mɔ̀sí!
	IMP.dance		IMP.go		IMP.laugh/smile
	'Dance!'		'Go!'		'Laugh/smile!'

NEGATIVE IMPERATIVE

b.	**faŋ**-kyà!	d.	**fan**-yɔ	f.	**fam**-mɔ̀sí
	2SG.SUBJ.NEG-dance		2SG.SUBJ.NEG.go		2SG.SUBJ.NEG.laugh/smile
	'Do not dance!'		'Do not go!'		'Laugh/smile!'

Lastly, the optative is demonstrated by example (60) below:

(60)   Krache (Abunya 2010: 119-120)

	OPTATIVE		NEGATIVE OPTATIVE	
a.	sɛ a-kyà	b.	**fan**	sɛ-a-kya
	let 2PL.SUBJ.OPT-dance		2SG.SUBJ.NEG	let-2PL-dance
	'Let us dance; I wish that we dance.'[24]		'Let us not dance.'	

Negation in Nkami, Foodo, and Krache is asymmetric. These languages fall under the subtype A/Cat because the marking of the grammatical categories differs from their marking in

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[24] The example is glossed second person plural but the free translation indicates first person plural. It might be better translated 'Let you all dance'.

affirmatives. In each of these languages, the negative construction has asymmetry in that the marking of tense and aspect forms a portmanteau negative marker.

In the Kwa languages surveyed so far, a few criteria for determining whether a negator is a prefix or a particle have been established. Clear cases of particles include those in which intervening words may occur between the negator and the verb (see (43) Gun). Evidence for a negator's status as a prefix includes occurring closer to the stem than other verbal prefixes (see (50) Nkami) as well as extensive assimilation with the stem ((52) Foodo). The next set of North Guang languages have been described as using preverbal negative particles in existing analyses:

(61)   North Guang languages with two or fewer distinct negative morphemes

    a.   Gonja[25]   máN-

    b.   Chumburung maa   Negative imperfective
                           mʊŋ   Negative perfective

    c.   Nawuri   maŋ   Negative
                           mEE   Negative incompletive

Gonja [gjn], spoken in the Northern and Brong-Ahafo regions of Ghana, has a single negative morpheme. The Gonja data is written orthographically. There are three forms found in the data: *maŋ*, *maa*, and *maaŋ*. The form *maaŋ* is shown in example (62) below, *maa* in (63), and *maŋ* in (64). Gonja, like Akan and Ewe, allows serial verb constructions but it differs from them in that Gonja requires a homorganic *N* as a serializing conjunction (underlined in example (62) below).

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[25] All Gonja data is selected from data collected in Ghana by Roderic Casali in 2014 and 2015. The 2014 data is from audio recordings of an adult male speaker named Francis Zakaria. The 2015 data is from audio recordings of an adult male speaker named Amidu Changa. The research and recording for both sets of data was carried out at the Kanvili office complex of the Ghana Institute of Linguistics, Literacy, and Bible Translation (GILLBT) near Tamale, the capital city of the Northern Region. The GILLBT staff also provided logistical support for the project. The texts collected have preliminary glosses compiled by previous students at the Canada Institute of Linguistics at Trinity Western University and may be in need of further clarification.

(62)   Gonja

nɛ	b	yɔ	ndoŋ	**maaŋ**	bɛta	m	ba	kikɛ
CNJ	3PL	go	place	NEG	return	CNJ	come	at.all

'they who went there would not return at all'

As can be seen in (62) above, in Gonja, the negation is marked only before the first verb of the

SVC and the serializing conjunction occurs in front of the second verb.

(63)   Gonja

bɔkwe	lelemu	nɛ	be	**maa**	ji	sheŋ
week	entire	CNJ	3PL.SUBJ	NEG	eat	anything

'For a whole week, they did not eat anything.'

(64)   Gonja

ndoŋ	nɛ	Ewura	yɛ	men	**maŋ**	wu	a
There	CNJ	chief	say	2PL.CONT	NEG	see	EMPH

'Then the chief said, "Didn't you see?"'

The differences between *maŋ*, *maa*, and *maaŋ* do not appear to have phonetic basis. For now,

these forms have been analyzed as allomorphs of the morpheme *maN*. If there is a difference in

meaning between these forms, more data would be required to determine this.

While this marker is written as distinct word in the orthography, there is evidence that the

negative marker is subject to assimilation with the verb stem. The morpheme-final nasal

assimilates to the point of articulation of the following consonant and the /a/ vowel is subject to

[ATR] harmony. Based on this and the group's preference for affixes so far, it seems likely that

the negative marker in Gonja is an affix or clitic.

Chumburung [ncu] is analyzed as having two negative particles, the first is *mʊŋ* which

encodes negation and the perfective aspect. Examples (65a and b) demonstrate the use of this

marker:

(65)   Chumburung (Hansford 2010: 128; 2011:54)[26]

    a.   ɔ   **mo̱ŋ**   yɔ   Aburikyire   daa

         he   NEG.PFV[27]   go.to   Europe   ever

         'He/she has never been to Europe.'

    b.   Fo̱   ya   de̱e̱re̱,   fo̱   **mo̱ŋ**   ke̱e   mò   ayaa.

         You   COND   look,   you   NEG.PFV   see   its   legs

         'If you look at it, you will not see its legs.'

In (66) below *mʊŋ* functions in the clause expressing the condition of a conditional construction

which is expressing a non-existent state:

(66)   Chumburung (Hansford 2011: 52)

     Ɔbɛɛ   ko̱ŋko̱   e̱   **mo̱ŋ**   bo̱-rɔ,

     Person   one   COND   NEG.PFV   be.there,

     bo̱   **maa**   taare̱   a   bo̱   so̱rɔ   tɔso̱rɔ.

     they   NEG.IPFV[28]   able   that   they   carry.SBJV   headload.

     'If one is not there, they can't carry a headload.'

This example also provides a case of *maa*, which is the negative particle used to encode negation

and imperfective aspect. Another example is provided by (67) below:

(67)   Chumburung (Hansford 2011:53)

     Mo̱   e̱   kyaa   na   bo̱   **maa**   laŋ   akɔye̱.

     I   PRES   dance   and   they   NEG.IPFV   beat   drum.

     'I dance but they are not drumming.'

There is one other case of *maa* in Hansford's (2011) paper:

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[26] Hansford (2010) & (2011) uses the Chumburung orthography rather than IPA. Additionally, the representations of the data do not account for tone. Correspondences between the orthography and IPA are shown below:

Chumburung orthography	IPA
"gy"	/dʒ/
"ky"	/tʃ/
"ny"	/ɲ/
"e̱"	/ɪ/
"o̱"	/ʊ/

[27] This morpheme is glossed 'NEG.PAST' by Hansford (2010), and 'STAT.NEG' and 'NEG' in Hansford (2011). According to a conversation with Keith Snider, Chumburung negative markers contain no tense marking, only aspect.

[28] This morpheme is glossed 'NEG.FUT' and 'PRES.NEG' by Hansford (2011).

(68)   Chumburung (Hansford 2011:53)

Ma   taarẹ   a   m   bɔɔ.
NEG.IPFV[29]   able   that   1SG   roll.up.SBJV
'I can't roll it up.'

In this example, the vowel is shorter and it encodes first person singular as well as negation. This

is the only case and it will be treated as an allomorph. It should also be noted that a phrase-final

glottal stop occurs in all negative utterances. This is not reflected in the Hansford (2010) &

(2011) data, which uses the Chumburung orthography rather than IPA. The glottal stop is not a

contrastive phoneme in Chumburung.

Like Chumburung, Nawuri [naw] also is analyzed as having two preverbal negative

particles which always occupy the initial position in the verb phrase:

(69)   Nawuri (Casali 1995: 74, 75)

a.   ɔ   **maŋ**   bʊ   tɔ
      3SG   NEG   be   there
      'She isn't there.'

b.   ɔ   **mɛɛ**   tɔwɪ
      3SG   NEG.INCOMP   speak
      'He doesn't speak.'

Casali (1995) proposes that *maŋ* is used to indicate negation alone while *mEE* is used to mark

both negation and incompletive aspect. *mEE* has two allomorphs, [mee] and [mɛɛ], the latter of

which is shown in example (69b) above.

The negative marker in Nawuri, unlike in Chumburung and Gonja, exhibits assimilation

with the verb stem. Gonja is the clearest in its use of particles rather than prefixes and at this

point in its development it is safe to analyze Chumburung as having particles as well. Nawuri is

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[29] This morpheme is glossed '1SG.PRES.NEG' by Hansford (2011). This is the only case where a negative morpheme
is glossed as encoding person and number. This is not typologically expected in Kwa. The forms [ma] and [maa]
will be treated as allomorphs in this paper.

likely undergoing a transition from particle to prefix as the negative marker is weakening, taking on features of the verb it modifies. Negation in these languages is largely symmetric.

North Guang languages are consistent in that they all use preverbal negative nasal morphemes to encode negation. Nkami and Foodo use negative verbal prefixes and have three or more options for marking tense and aspect. Gonja and Chumburung are clear cases of the use of preverbal negative particles and each of these languages has two options for different tense and aspect contexts. Since there is a consistent nasal morpheme that appears to be a split between languages with preverbal particles and languages with prefixes, it seems likely that a proto-language for this group likely contained nasal preverbal particles which in some languages have become verbal prefixes. The Nawuri data provides a potential example of what a stage in that process looks like. In the next section, we will look at South Guang languages and find that this subgroup of Kwa tends to be less consistent.

3.3.2 South Guang

Dolphyne & Dakubu (1988) make the generalization that the Guang languages consistently mark negation by means of a /m-/ prefix. The North Guang languages do exhibit this type of behavior, most often utilizing an mV(C) pattern. Unlike the consistency found in North Guang the South Guang languages exhibit greater variation.

Efutu [afu] is spoken in southern Ghana and is a member of the Awutu sub-branch of South Guang. Like the North Guang language group, Efutu marks negation using preverbal negation marking:

(70)   Efutu (Obeng 2008: 29, 84-5)

    a.   mɪ   **mɑ-ɑ**   apʲɪɛkõ   pii
        1SG   NEG-have   money   much
        'I don't have much money.'

    b.   mò wó   **mɑ́**[30]   ɑbɔ́   fʲìɛ̀w
        3SG RFLX   NEG   be   nice
        'S/he is not nice.'

The first thing of note is that Efutu appears to be following the same pattern as the North Guang

languages, using a preverbal negative nasal morpheme. The negative prefix is realized either as

/mɑ/ or /mɔ/ depending on the vowel of the verb it immediately precedes:

(71)   Efutu (Obeng 2008: 84)

    a.   ɔsé[31]   nʊ́   mòbɔ́   ɔ̀   dɛ̀
        woman   the   she   be   good
        'The woman is good.'

    b.[32]   ɔ̀sé   n̄   mòm̋   **mɔ́**   ɔ̀   dɛ̀
        woman   the   she   NEG   be   good
        'The woman is bad.'

In this example, is appears that [mɔ́] is the preverbal negative prefix but this is not the only

change that takes place in the sentence. The definite article loses its vowel and the form of the 3rd

person pronoun changes. According to Obeng (2008: 16), *n* is the definite article in Efutu and

[nʊ́] appears to be one of its allophonic variations. A similar example to (71b) above is (72)

below:

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[30] The prefix vs. particle distinction is inconsistently marked in Obeng (2008). Based on the data provided, the negative marker is analyzed here as a prefix rather than as a particle.

[31] This is a sequence where one would expect to see vowel harmony. The Efutu data provided by Obeng is largely orthographic and so does not always reflect cases of vowel harmony.

[32] The morpheme-by-morpheme gloss for this example was not provided by Obeng (2008). The gloss has been constructed based on previous glosses provided in the data.

(72)   Efutu (Obeng 2008: 26)

ɔsé   ḿ   **òmɔ́-ɔ́**[33]   dɛ̀
woman   this   NEG-be   good
'This woman is not good.'

Based on examples (70) - (72), I propose that the negative prefix is underlyingly *mV-* and that it

assimilates with the initial vowel of the verb. The negative prefix can be further reduced, as is

demonstrated by the next example:

(73)   Efutu (Obeng 2008: 26)

a.   òmʊ́   èdǽ   jìbí
     this   it.be   stick
     'This is a stick.'

b.[34]   òmʊ̃́   [35]idæ   jibi[36]
         this   it.be   stick
         'This thing is a stick.'

c.   ɔ́mʊ̃́   **m**-ídǽ   jìbí
     this   NEG-it.be[37]   stick
     'This is not a stick.'

This example shows how the prefix [m-] is attached to the verb in order to negate the clause. The

only time the vowel is elided is in negative copula clauses, like the one demonstrated in example

(73c) above. The Efutu negative marker has been analyzed here as a prefix. The inconsistency of

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[33] The morpheme-by-morpheme gloss for this example was not provided by Obeng (2008). The morpheme *òmɔ́* is the only case where a vowel occurs before the negative morpheme. The gloss has been constructed based on previous glosses provided in the data but the /o/ has not been accounted for.

[34] As indicated with certain previous examples, the morpheme-by-morpheme gloss for this example was not provided by Obeng (2008) and the gloss shown was constructed based on previous glosses.

[35] While not glossed as such, it is possible that the change in vowel from *e* in (73a) to *i* in (73b) is meant to differentiate between the use of *òmʊ́* as a demonstrative in (a) and as a determiner in (b).

[36] The data for these examples are presented here as they were presented in Obeng (2008). Tone has been included where provided but it has been inconsistently marked in the data.
Due to the inconsistency of the tone marking it is difficult to tell how the negation affects the tone pattern of the utterance.

[37] This morpheme is written *mídǽ* with no hyphens and glossed 'it-NEG-be' in the original data. Based on other glosses, it has been revised as shown in (73c).

the marking may be caused by either the fact that the marker had particle status previously but has since lost its status as a distinct word or by the orthographic tradition.

Leteh (or Larteh) [lar], spoken in south-eastern Ghana, is a member of the Hill sub-branch of South Guang. Like many other Kwa languages, Leteh exhibits negative verbal prefixes:

(74)   Leteh (Ansah 2015: 34, 37)

    a.   ɛ́né   **bɛ́**-dɛ́-sɔ̀   oburodwo
        1PL   NEG-PRG-buy   plantain.
        'We are not buying plantain.'

    b.   Kofi   **bé**-gyí   dɔkɪta
        Kofi   NEG-be   doctor
        'Kofi is not a doctor.'

The high tone morpheme *bÉ*- can be realized as either [bɛ́-], as in example (74a) above, or [bé-], as in example (b), depending on the [ATR] value of the verb it modifies. Example (a) also shows that when the negative marker co-occurs with the tense/aspect marker, the negative morpheme precedes the tense/aspect marker.

This language stands out from other Kwa languages in that the marker of negation is not a nasal phoneme. This is especially interesting because of the fact that Efutu, another South Guang language spoken in the same region, follows the pattern of the other Kwa languages in using preverbal nasal negation marking. Two other South Guang languages share the bilabial plosive rather than nasal negative morpheme. Cherepon (or Ɔkere[38]) [cpn], another member of the Hill sub-branch, is located in the same region of South-East Ghana as Leteh. In Cherepon,

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[38] The Ɔkere people use 'Ɔkere' to refer to themselves and their language. The name was changed to 'Kyerepong' (or 'Cherepon') by the Akwamu people and is used by non-natives to refer to the language and the people (Animah 2015: 2).

negation is also marked with a verbal prefix *bÉ-* which can be realized as [bé-] as in (75a) below

or [bɛ́-] in (b):

(75)   Cherepon (Animah 2015: 55, 94)

    a.   Kofi   **bé**-wè   sukuu.
               Kofi   NEG-go.HAB   school
               'Kofi does not go to school.'

    b.   Papa Larbi   **bɛ́**-bɔ̀ɛ̀   ɔtɔkoa,   a-**bɛ́**-dì   nso.
               Papa Larbi   NEG-do.HAB   nothing   3SG-NEG-sleep.HAB   too
               'Papa Larbi does nothing, he doesn't sleep either.'

If there is a verbal aspect prefix, the negation marker is attached to that prefix which is attached

to the verb stem:

(76)   Cherepon (Animah 2015: 55, 94)

    Kofi   **bé**-né-wè   sukuu.
    Kofi   NEG-PFV-go   school
    'Kofi has not gone to school.'

In this example, the perfective marker is attached to the verb stem and then the negation marker

is attached to the perfective marker.

        The other South Guang language that shares the bilabial plosive /b/ feature is Gua [gwx].

Gua is located to the north of Leteh and Cherepon in the southern part of the Volta Lake region.

Like the other two Hill Guang languages, Gua utilizes the high-tone prefix /bÉ-/ to mark

negation:

(77)   Gua[39]

ABBREVIATIONS (AFFIRMATIVE / NEGATIVE)

AFFIRMATIVE   NEGATIVE

a.   kòfí   hù   yâw   b.   kòfí   **bé**-hù   yâw
     Kofi   see.HAB/PRES   Yaw   Kofi   NEG-see.HAB/PRES   Yaw
     'Kofi sees Yaw.'   'Kofi does not see Yaw.'

This example is a clear case of symmetrical negation. Like the other Hill Guang languages, the

vowel in the prefix is subject vowel harmony with the stem.

(78)   Gua

a.   kòfí   bè-hú   yâw   átɕĩ   b.   kòfí   **bèé**-hú   yâw   átɕĩ
     Kofi   FUT-see Yaw   tomorrow   Kofi   FUT.NEG-see Yaw   tomorrow
     'Kofi will see Yaw tomorrow.'   'Kofi will not see Yaw tomorrow.'

c.   kòfí   ɛ́ɛ́-bʷɛ̀   ésímì   d.   kòfí   **bɛ̀ɛ́**-bʷɛ̀   ésímì
     Kofi   PROG-do   work/job   Kofi   NEG.PROG-do   work/job
     'Kofi is working.'   'Kofi is not working.'

In examples (78b and d) above, the negative marker combines with the tense or aspect marker. In

(b) the low-tone future marker *bè*- combines with the high-tone negative marker to form the

compound negative future prefix *bèé*-. In (d), the progressive marker combines with the negative

marker to form the negative progressive prefix *bɛ̀ɛ́*-.

The South Guang languages are largely symmetric. Gua exhibits a potential exception in

example (78) above. This is another example of A/Cat asymmetry. The three Hill Guang

languages stand out from the rest of the Guang languages in their use of *bÉ*- as their negative

marker rather than a nasal phoneme. Possible reasons for these typological outliers will be

discussed in the next section.

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[39] Gua data was provided by Michael Obiri-Yeboah, a native speaker of the language, by means of email
correspondence. The data collected is featured in the Appendix.

3.3.3 A solution for the Guang typological outliers

Leteh, Cherepon, and Gua stand out from the other Kwa languages surveyed so far in that these languages do not utilize a nasal negative morpheme. This is especially interesting because of the fact that Efutu, another South Guang language, follows the same pattern as the majority of the other Kwa languages in using preverbal nasal negation marking. Leteh, Cherepon, and Gua make up the Hill sub-branch of the South branch. As can be seen in the map below, Leteh and Cherepon are geographically near the Ga-Dangme languages, which are also spoken in South-East Ghana:

(79) Location of typological outliers

Ga-Dangme is a small branch of the Kwa language family that consists only of Ga [gaa] and Dangme (or Adangme) [ada]. Because of the small size of the subgroup and their relevance to the discussion of Leteh and Cherepon, they will be treated here.

Both Ga and Dangme contain negative verbs with the phoneme /b/. Ga, unlike other Kwa languages, uses mostly negative suffixes (demonstrated in (80a) below) but it has a negative locative copula verb *bɛ́* (shown in (b) below):

(80)   Ga (Campbell 2014: 90)

a.   gbèé-ɛ̀   kɛ̀   è-yítsò   hɔ̀   jar   mlì fɛ́ɛ́   àmɛ̃́-**!ná̃á̃á̃**   lɛ̀
      dog-DEF   take   3SG-head   put   jar   inside all   3PL-see.NEG   him

      'The dog even put his head into the jar but they still couldn't find him.'

b.   kɔ̀kɔ̀dé!né-!ɛ́   **bɛ́**   è-tɔ́-ɔ̀   mlì.
      frog-DEF   be.located.NEG   3SG-bottle-DEF   inside

      'The frog was not in his bottle.'

The negative suffix in (80a) should not be mistaken for a nasal negative morpheme. The nasal

phoneme in this example comes from the verb 'see'. The negative suffix and negative copula

verb in Ga are illustrated below:

(81)   Ga (Campbell 2014)

VERB		INFLECTED	NEGATIVE
kwɛ̂	'look'	yà-kwɛ̃́	àmɛ̃̀-**kwɛ́ɛ́ɛ́**
		ITIV-look	3PL-look.NEG
nã̀	'see'	àmɛ̀-yà-nã̀	àmɛ̃́-**!ná̃á̃á̃**
		3PL-ITIV-see	3PL-see.NEG
yɛ̀	'be located'		**bɛ̃́**
			be.located.NEG

In Ga, the negative suffix seems to be a lengthening of the vowel of the verb.

In Dangme, there are several different negation strategies. The first involves a post-verb

particle *we* and seems to resemble Ewe's clause-final negator, the particle *o*. A difference from

negation in Ewe is that negation in Dangme always involves a high tone on the verb stem

(Ameka & Dakubu 2008: 217). A Dangme verb paradigm is shown below:

(82)   Dangme verb paradigm (Ameka & Dakubu 2008: 251)

Aspect	Form	Gloss
Perfective	Nà lá	'Na sang'
Habitual	Nà lá-á	'Na sings'
Negative	Nà lá **wē**	'Na did not/ does not/ is not singing'
Subjunctive	Nà á lá	'Na is to sing, would sing'
Absolute	lá	'sing!'

This negation pattern fits roughly into Miestamo's asymmetry category A/Cat, in which the marking of grammatical categories in negative clauses differs from their marking in affirmative clauses. In the negative, the aspect distinction found in the affirmative is neutralized. The negative particle cannot co-occur with marking for habitual or subjunctive (Ameka & Dakubu 2008: 253). This first negation strategy neutralizes the contrast between the realis forms. The phonological form of the realis negative depends on the tone class of the verb and varies slightly from one dialect to another:

(83)   Dangme negation of realis (Ameka & Dakubu 2008: 255)

Tone class	Verb		Negated verb	
High	lá	'sing'	lá **wē**	
Low	dò	'dance'	dú-**í**	
Mid	dū	'bathe'	dú **wē**	dú-í
			(Krobo dialect)	(Ada dialect)

If the verb stem has a final high tone, the tone does not change and the particle, *we* follows the verb. If the verb has a final low tone, the stem vowel is raised, there is a suffix consisting of a high vowel, and the whole construction has high tone. Final mid tone verbs follow the patterns of high tone verbs in the Krobo dialect and follow the pattern of low tone verbs in the Ada dialect (Ameka & Dakubu 2008: 255). In their analysis, Ameka and Dakubu (2008) describe *we* as a particle with phonological realizations as suffix. It seems likely that *we* could be analyzed as a suffix (-*we*) with different allomorphs, depending on the tone of the verb stem.

Irrealis in Dangme undergoes a different set of negation strategies. Irrealis forms are negated by means of negative verbs. The future is negated by means of *bé*, which is a negative locative verb that has been glossed as 'absent' (Ameka & Dakubu 2008: 266). Imperatives are typically negated though the use of the counter-factual verb *ko*, which indicates a situation to the contrary. Examples of both *bé* and *ko* are demonstrated in (84) below:

(84) Dangme negation of irrealis (adapted from Ameka & Dakubu 2008: 270)

	Aspect/Mood	*Positive*	*Negative*
a.	Future	è mã̀ ǎ́ tró kɛtɛ	è **bé** kɛtɛ tró-ē
		'Sh/e will carry the basket'	'S/he will not carry the basket'
b.	Indir. Imperative	è tró kɛtɛ	é **kó** tró kɛtɛ
		'carry the basket'	'don't carry the basket'
c.	Dir. Imperative	tró	**kò** ó tró
		'carry!'	'don't carry!'

When no subject is expressed, an expression using *ko* is interpreted as a singular negative direct imperative (Ameka & Dakubu 2008: 259), as in (84c) above.

Both Ga and Dangme contain negative *bÉ* verbs which might explain where Leteh and Cherepon acquired a /b/-initial negation marking. Ga and Dangme also differ from the rest of Kwa in that they can place the negative marker after the verb. Ga marks negation through a negative suffix while Dangme uses a split strategy of a negative suffix -*we* for realis and pre-main-verb negative verbs for irrealis. The use of /b/-initial negators as well as negators containing /w/ is more common in other language groups in and around eastern Nigeria, as is demonstrated by (85) below. The map shows the distribution of a handful of languages with /b/-initial negation morphemes and /w/ negation morphemes. Language family has been largely disregarded for this illustration but the cluster of Kwa languages has been circled.

(85) Distribution of /b/-initial and /w/ negation morphemes[40]

- ● /b/-initial morphemes
- ● /w/ morphemes
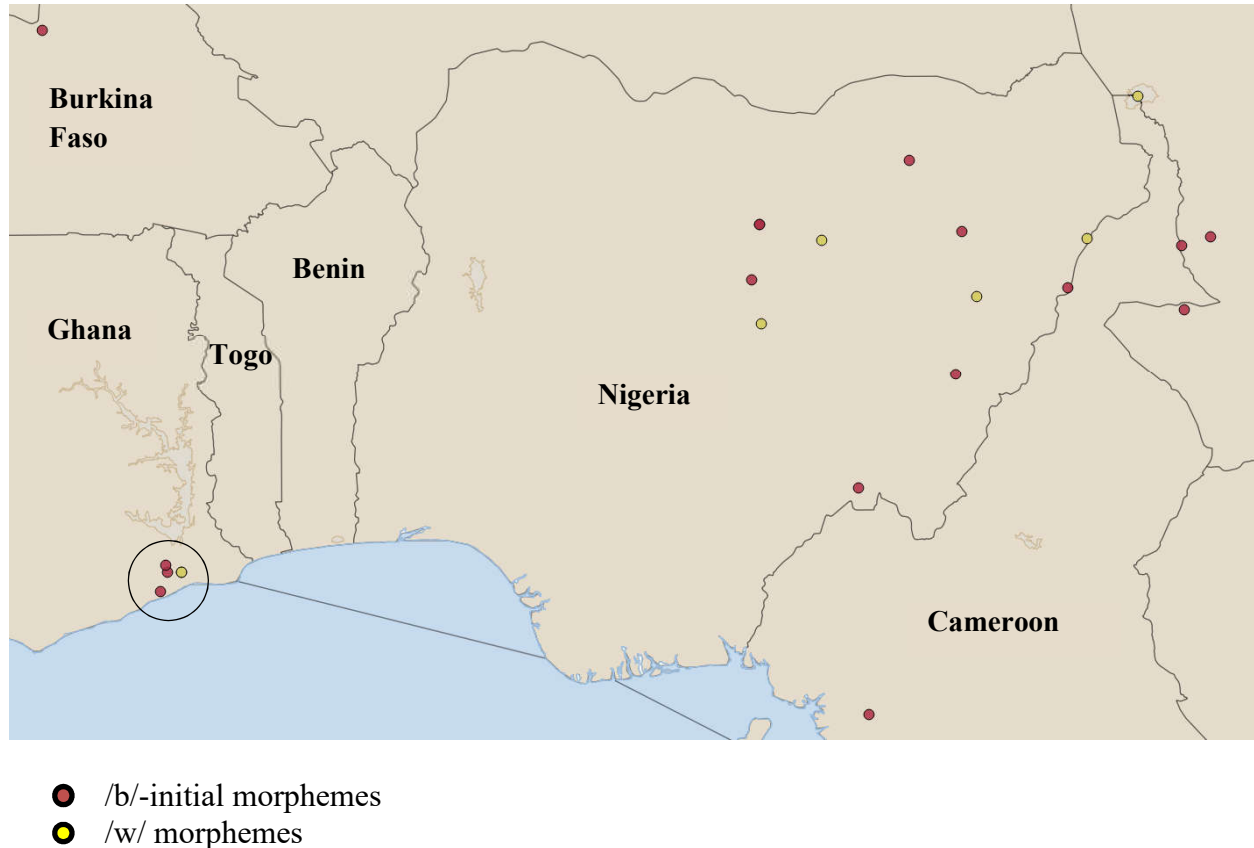
As can be clearly seen by this graphic, /b/-initial and /w/ negation markers are much more common on the east side of Nigeria.[41] They do not occur in Kwa other than in the small area that has been circled on the map. It seems most likely that these negation features were acquired by a small group of Kwa languages, possibly from the Ga-Dangme subgroup, and have since then spread to a small selection of South Guang languages. Without additional historical data, this cannot be confirmed. The correlation of negative words containing the phoneme /b/ in south-eastern Ghana is interesting but additional data would be required in order to confirm whether or

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[40] All of the maps used in this paper have been created using QGIS software. The languages included are based on data provided by Dryer (2009). The coordinates for the languages were obtained from Glottolog 2.7 (Hammarström et. al 2016).

[41] It can also be seen from the map that there are additional cases in and around Cameroon as well as a single data point in Burkina Faso.

not Leteh replaced a negative nasal morpheme, as is more common in the Guang language group, with the one it has now.

Unlike the North Guang languages, the South Guang languages do not encode tense or aspect in their negative particles or prefixes. These languages show less consistency as a subgroup than the North Guang languages and were likely influenced by the Ga-Dangme languages.

3.4 Ghana-Togo Mountain languages

Most of the languages known as Ghana-Togo Mountain (GTM) languages are spoken in the mountain region near the borders of Ghana and Togo. The map below shows the geographic distribution of these languages:

(86) Ghana-Togo Mountain languages
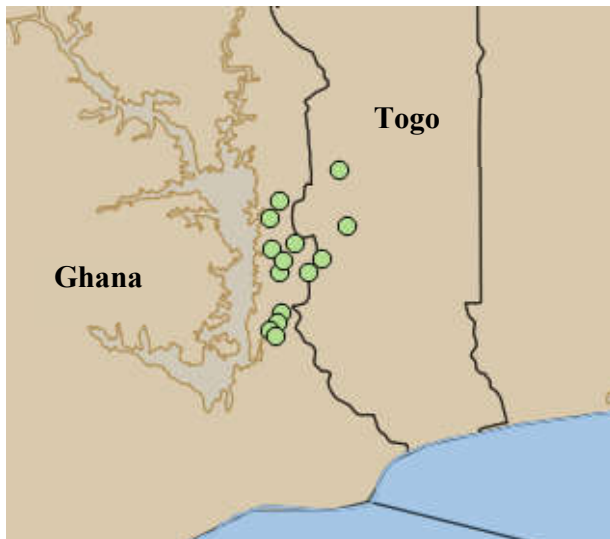
Originally the label "Ghana-Togo Mountain" was a daughter node under Kwa but there has since been debate as to whether these languages are any more closely related to one another than they are to the rest of the Kwa languages. More recent classifications accept the Na-Togo and Ka-Togo groupings shown below and put these directly under Kwa (Dakubu 2009: 631).

The label, "Ghana-Togo Mountain" will be used in this paper but refers to a group of languages that are geographically close but does not really constitute a cohesive genetic subgroup[42].
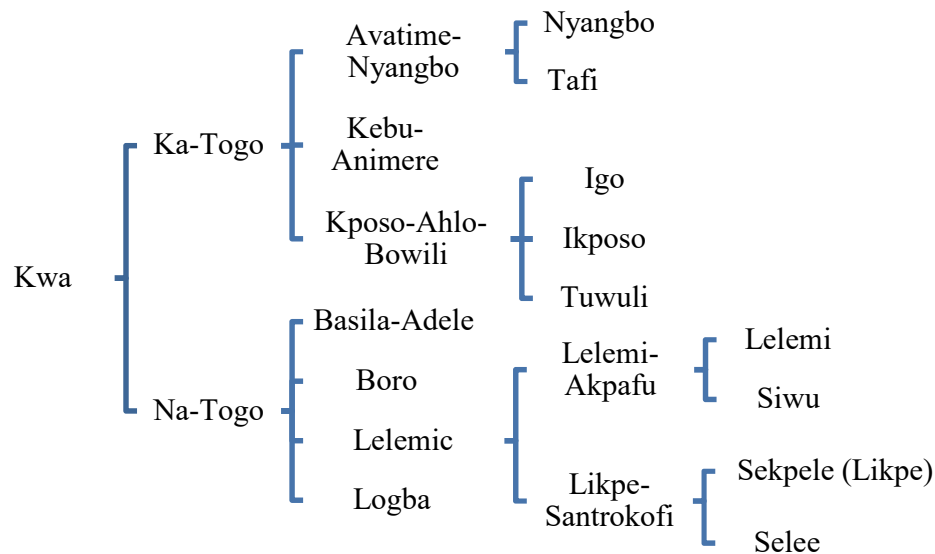
(87) Abbreviated Kwa family tree: Ghana-Togo Mountain languages

Kwa
- Ka-Togo
  - Avatime-Nyangbo
    - Nyangbo
    - Tafi
  - Kebu-Animere
  - Kposo-Ahlo-Bowili
    - Igo
    - Ikposo
    - Tuwuli
- Na-Togo
  - Basila-Adele
  - Boro
  - Lelemic
    - Lelemi-Akpafu
      - Lelemi
      - Siwu
    - Likpe-Santrokofi
      - Sekpele (Likpe)
      - Selee
  - Logba

Like the other Kwa language subgroups, these languages tend to be SVO. Unlike the majority of the Kwa languages surveyed so far, languages found in the GTM area exhibit more diversity in negation patterns, including a few significantly more complicated systems of negation.

3.4.1 Ka-Togo language data

The first pair of Ka-Togo languages that will be covered here are Tafi (or Tɪgbɔ) [tcd] and Nyangbo (or Nyagbo or Tutrugbu) [nyb]. Tafi is spoken in the Volta Region of South-eastern Ghana. Like many other Kwa languages, Tafi is a serializing language and in SVCs the verbs cannot be independently negated (Bobuafor 2013: 10). Like Chumburung, there is an utterance-final glottal stop /ʔ/ in Tafi which is used to mark negative utterances. It is considered as a prosodic clause marker and is not a contrastive sound in Tafi (Bobuafor 2013: 23).

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[42] Classification based on Hammarström et. al (2016).

Negation in Tafi is expressed by a verbal prefix *tÍ-* in the present and *dI-* in the non-present. These prefixes exhibit ATR vowel harmony which means that their realization depends on the ATR value of the initial vowel in the verb:

(88) Tafi *tÍ-* prefix with verb paradigms (Bobuafor 2013: 215)

a.	í-**tí**-bhɪtī̄ʔ	'I don't do'	b.	í-**tí**-huʔ	'I don't hit'
	ɔ́-**tí**-bhɪtī̄ʔ	'You don't do'		ó-**tí**-huʔ	'You don't hit
	á-**tí**-bhɪtī̄ʔ	'S/he doesn't do'		é-**tí**-huʔ	'S/he doesn't hit'
	bʊ́-**tí**-bhɪtī̄ʔ	'We don't do'		bú-**tí**-huʔ	'We don't hit'
	nɔ-**tí**-bhɪtī̄ʔ	'You don't do'		no-**tí**-huʔ	'You don't hit'
	bá-**tí**-bhɪtī̄ʔ	'They don't do'		bé-**tí**-huʔ	'They don't hit'

The negative morphemes *tÍ-* and *dI-* are selected on the basis of tense and aspect features of the predicate they negate. For example, with active and stative predicates, *tÍ-* is used to indicate present negation while *dI-* is used to indicate past negation:

(89) Tafi negative prefixes (Bobuafor 2013: 215)

í-**tí**-báʔ	'I do not come'	ɪ-**dɪ**-báʔ	'I did not come'
í-**tí**-waʔ	'I do not do'	ɪ-**dɪ**-waʔ	'I did not do'
í-**tí**-shĩʔ	'I do not leave'	ɪ-**dɪ**-shĩʔ	'I did not leave'
í-**tí**-sĭʔ	'I do not run'	i-**di**-síʔ	'I did not run'

There is a third marker of negation in Tafi, *gɪ-*, which has a much more restricted use. In the corpus used by Bobuafor (2013), it occurs with the verb *sí* 'say' and expresses 'did not intend to do something':

(90) Tafi (Bobuafor 2013: 216-7)

e-yí	nɔ̂	ní	gɪ	a-sí	yí	é-nī
CP-child	WH.ever	DEF	REL	3SG.DEP-say	3SG.IND	CP-mother

á-**tí**-dɔ	tɪ-rá	e-lishí	yí	tsyí	a-**gɪ**-<u>sí</u>	á-ba-dɔ
SM-NEG1-contact	CP-sleep	CP-night	3SG.IND	too	3SG-NEG3-say	SM-FUT-contact

'The child who would not let its mother sleep will also not sleep.'

Negation in Tafi also interacts with other aspectual categories. For example, when the negative and present progressive markers co-occur, the vowels of the resulting form are the same as the

vowel of the pronominal form they occur with, with the exception of the first-person plural

(Bobuafor 2013: 217). In the examples (91a-c, e and f), the vowel of the negative morpheme

matches that of the pronominal prefix while in (91d), the first-person plural, the vowel does not

change:

(91)   Tafi negative present progressive (Bobuafor 2013: 217)
    a. í-**tíí**-gāʔ   'I am not walking'
    b. ɔ́-**tɔ́ɔ́**-gāʔ   'You are not walking'
    c. á-**táá**-gāʔ   'S/he is not walking'
    d. bʊ́-**tíí**-gāʔ   'We are not walking'
    e. nɔ-**tɔ́ɔ́**-gāʔ   'You are not walking'
    f. bá-**táá**-gāʔ   'They are not walking'

Nyangbo is located in the same region of South-eastern Ghana as Tafi and has a similar,

but simpler mode of negation. There are two markers in Nyangbo, *tV-* and *gɛ-*. The prefix *tV-* can

be realized as [ti-], as in (92a), or as [tɛ-], as in (b), depending on the ATR value of vowel in the

verb stem:

(92)   Nyangbo (Essegbey 2009; 2012)

    a. i-**ti**-nyí   m'   élĩ   nyé
       1SG-NEG-know   1SG:POSS mother name
       I don't know my mother's name.

    b. Kofi   a-**tɛ́**-ka-á-tsɛ̄   biskwit
       Kofi   AM-NEG-still-PROG-pick   biscuit
       'Kofi is no longer taking biscuit.'

    c. o-dzinidzini   a-pɛ   a-nyɛ-ɛ   petee lɔ-**gɛ**-mɔ-ɛ́
       CM-earthworm   AM-search CM-man-DEF   all   3SG-NEG-see-3SG
       'Earthworm looked everywhere for the man but did not see him.'

Based on this data, it appears that, similar to the negative prefixes in Tafi, *tI-* may have a present

meaning and *gɛ-* a past meaning. Additional data would be required to establish any further

similarities with the Tafi negation system.

The /t/, /d/, and /g/ initial negators are features of these two GTM languages that set them apart from the rest of Kwa. We will see as we examine other members of Ka-Togo and Na-Togo that this feature appears in both of these branches. As these are not features found elsewhere in Kwa, there are two possible solutions. First, that it was acquired from another Niger-Congo language group, where these types of features are more common,[43] or second, that it is an innovation of a proto-Ghana-Togo-Mountain language that has been inherited by these languages. At this point, the first solution is preferred but would require data that indicates a relatively long-distance migration in order to confirm. Additionally, the most recent analyses of Kwa argue that the Ka-Togo and Na-Togo branches are not necessarily more closely related to one another than they are to the rest of Kwa (Dakubu 2009: 631), which might indicate that these languages might be better categorized elsewhere. The similarities between these branches are likely due to contact with one another.

This next pair of languages are Ikposo and Tuwuli and these fall under the Kposo-Ahlo-Bowili branch of Ka-Togo. Ikposo [kpo], spoken in Southwest Togo, exhibits a negation pattern much like that of the rest of Kwa. It is described as having a rigid SVO constituent order (Soubrier 2009: 189). This language utilizes a much simpler pattern than most other GTM languages, encoding negation with a verbal prefix *na-*:

(93)   Ikposo (adapted from Soubrier 2009: 195)

ɛ̀dī-ɛ̌   bwakʊ́   ɔ́-**na**-fʊ́   yǐ
that-DEF   REL   3SG-NEG-like   OBJ3SG
'The one he does not like ...'

This is clearly a case of morphological negation because the marker of negation occurs closer to the verb than other verbal prefixes encoding person and number.

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[43] Based on data obtained from Dryer (2009).

The next language in this subgroup has a more complicated system of negation. Tuwuli

[bov] is another Ka-Togo language and is spoken in the Central Volta Region of Ghana. Like the

rest of Kwa, Tuwuli exhibits a basic SVO constituent ordering:

(94)   Tuwuli (Harley 2009: 77)

Kòfí   lì-yé   fɔ́fɛ̀   à
Kofi   NPS-steal   rice   ID
'Kofi stole the rice.'

Tuwuli contains several verbal prefixes for marking negation. The first is *tá-*, shown in example

(95) below, which is used to negate simple declarative sentences:

(95)   Tuwuli (Harley 2009: 79)

Kòfí   **tá**-náà   kùgbéní
Kofi   NEG-go   hunting
'Kofi didn't go hunting.'

The second negative verbal prefix is *l(V́)-*. All verbs with certain TAM and negative polarity

require this prefix:

(96)   Tuwuli (adapted from Harley 2008; 2009)

a.   nɔ̀   óvólî   **lɛ́**-lǎ-mlà   kà-yá
      Your letter   NEG-be:MANNER-with   NOM-come
      'Your letter is not coming.'

b.   ɛ́-**lǎ**-mlà   (óvólì)   kà-kɑ̌
      3SG-NEG.be:MANNER-with   book   NOM-reading
      'He isn't reading (a book).'

c.   ɔ́wɔ̂   **l**-ǎ-víɔ̌   mɔ̀   bóè
      river   NEG-PRES.IPFV-dry:up   with   stones
      'A river doesn't dry up with stones.'

d.   Kofi   **lɛ́**-**l**-ǎá-yá
      Kofi   NEG-NEG.FUT-FUT-come
      'Kofi will not come.'

In (96d) above, the negative is marked twice. This is the only place in Tuwuli where this seems

to occur. Harley (2009) glosses the construction as shown in (97a) below:

(97)　Tuwuli (Harley 2009:79)
　　　a.　Kòfí　kɔ́　**lɛ́-l-ắá-náà**
　　　　　Kofi　TOP　NPS.NEG-NEG.FUT-FUT-go
　　　　　'As for Kofi, he won't go.'

　　　b.　Kòfí　**lɛ̀-tá-náà**　　　kùgbéní
　　　　　Kofi　NPS.FOC-NEG-go　hunting
　　　　　'Kofi didn't go hunting.'

In (97a) /lɛ-/ has a high tone and is glossed as the noun phrase subject and negative while in (b) it

has a low tone and is glossed as the noun phrase subject and focus. It may be that the [l-]

morpheme in (a) is the marker of negation and is accompanied by a high tone that affects the

tone of the /lɛ-/ morpheme. This will not be treated as a case of double negation.

　　　The last negative prefix found in Tuwuli is *a-*. This prefix is shown in (98a) below

alongside a construction with the same meaning using *ta-* in (b):

(98)　Tuwuli (Harley 2008: 318)

　　　a.　b-**ǎ**-aka-kɛna　　　　adzuma
　　　　　3PL-NEG.IPFV-SBJV.IPFV-do　work
　　　　　'They should not be working.'

　　　b.　bɛ̀-**ta**-ka-kɛna　　　　adzuma
　　　　　3PL.SBJV-NEG-IPFV-do　work
　　　　　'They should not be working.'

The prefix /a-/ encodes both imperfective aspect and negation. As can be seen in (98a) above,

when this prefix is used, imperfective aspect is marked by the negative morpheme and by

another affix that also encodes the subjunctive. Alternatively, the same idea can be encoded

using the original negative marker introduced, /ta-/. Example (98b) illustrates how the same

meaning is conveyed by encoding the subjunctive on the affix that also encodes person and

number and imperfective is encode by another affix and is separate from the marker of negation. Additional data would be required to tease apart the nuances of these two examples and better understand the contexts in which one might be prioritized over the other.

Tuwuli is interesting in that it is another language that stands out from the normal Kwa negation marking by failing to use preverbal nasal negation marking. Tuwuli's final negation strategy is another that differentiates it from other Kwa languages. In Tuwuli there is an extra-high tone level, which is strongly linked with the marking of negation. In the case of state verbs, this negative high tone is frequently the only indication of negation in the clause (Harley 2008: 294):

(99) Tuwuli (Harley 2008: 323-4)

    a.   fɔ́-nɛ́nɛ̀
          3SG.REF-be:good
          'It's good.'

    b.   fɔ́-nɛ̋nɛ̀
          3SG.REF-NEG.be:good
          'It's not good.'

The use of only tone to mark negation is a feature that is almost absent from the Kwa language group. The table below provides a summary of the negation features found in the Ka-Togo branch:

(100)   Summary of negators in Ka-Togo GTM languages

Ikposo
   na-
Tuwuli
   ta-   Basic declarative clauses
   a-   Negative imperfective
   lV́-   Clauses with certain TAM and negative polarity
   V̋   Negation of certain state verbs
Nyangbo
   tV-   Negative present
   gɛ-   Negative past
Tafi
   tÍ-   Negative present
   dI-   Negative past
   (gɪ-)

In the next section, we will add Na-Togo languages to our analysis of GTM languages.

3.4.2 Na-Togo language data

Sekpele (or Likpe) [lip] is spoken along the southern part of the border of Ghana and Togo. This language follows the SVO constituent ordering of the Kwa language group:

(101)   Sekpele (Delalorm 2016: 378)

o-sani   əmə   a-mɪnɪ   ko-fa
NCP-man   NCP-the   HAB-swallow   NCP-medicine
'The man swallows the medicine'

On the surface, this language appears to have the simplest of the Na-Togo negation systems. The negative marker in Sekpele is represented by a homorganic nasal verbal prefix /N-/, aligning with the expected patterns of a Kwa language. This negation marker is a confirmed case of morphological negation because it can occur closer to the verb stem than other prefixes for TAM as well as occurring closer to the stem than person and number marking. For example,

(102)   Sekpele (Delalorm 2016: 352)

wé=**m**-fí   kólèsá
3SG.NOM.PST=NEG-take   anything
'He didn't take anything'

In (102) above, 3rd person singular and past tense are encoded by a clitic, which occurs further

from the verb stem than the marker of negation. This example also shows how the underlying

/N-/ prefix is realized as [m-] through assimilation with the place feature of the stem.

While in most contexts, a single negation marker is used, Sekpele differs from most other

Kwa languages in that there are specific contexts in which negation is marked twice. The

negative prefix occurs twice on the same verb when the perfective aspect and/or 2SG pronominal

is present. In the example below, (103a) demonstrates single negation with the 1SG pronominal

and the past tense while (b) contains both the perfective aspect and the 2SG pronoun:

(103)   Sekpele (Delalorm 2016: 354-5)

a.   mé=**n**-kè-sù   àsɔ̀lé   ə́-mə́
      1SG.PST=NEG-PROG-go   church   CP-the
      'I wasn't going to the church'

b.   á=**m**-è-**n**-kè-sù   àsɔ̀lé   əmə́
      2SG.PST= NEG-PFV-NEG-PROG-go   church   CP-the
      'You weren't going to the church'

The negative prefix occurs once in (103a) and twice in (b). The following example demonstrates

double marking of negation with the perfective aspect and no pronominal forms:

(104)   Sekpele (Delalorm 2016: 229)

di-yìbíbí   nə́-mə́   **m**-à-**n**-sɛ́
NCP-fruit   CP-the   NEG-PFV-NEG-ripe
'The fruit is unripe'

As the double marking of negation occurs both times as a prefix, this is not a typical case of

double negation. In most cases of bipartite negation, one negative marker occurs immediately

before the verb or verb-phrase being negated and the second marker occurs after the verb, either

immediately, as in French, or phrase finally as in Ewe.

Lelemi [lef] is another Na-Togo language and is spoken in the Volta Region of Ghana.

Like Sekpele and the rest of Kwa, Lelemi exhibits SVO word order:

(105) Lelemi (Fiedler & Schwarz 2009: 61)

bé-yè   èjībì.
3PL.PFV-buy   fruits
'They bought fruits.'

Lelemi has a relatively complex verbal prefix system and has a system of negation that

resembles that of Tuwuli. The tense and aspect, person and number, and negation prefixes

sometimes exhibit portmanteau and sometimes are distinct affixes. In the perfective aspect,

negation is marked by a distinct affix:

(106) Lelemi (Fiedler & Schwarz 2009: 63)

ń-**tá**-nū   ŋ̀.
1SG.PFV-NEG-see   3SG
'I didn't see her.'

Unlike the perfective aspect, negation in the stative aspect is encoded by a portmanteau affix, as

demonstrated by (107b) below:

(107) Lelemi (Fiedler & Schwarz 2009: 62-3)

a.   n̄-jī   ká   sūè   kū   ágnès …
     1SG.STAT-know   COMPL   Sue   CNJ   Agnes
     'I know that Sue and Agnes…'

b.   **lɛ̀ɛ̀**-jī   kàbá   kāmɛ́nī.
     1SG.STAT.NEG-know   family   DEM
     I do not know this family.

Depending on the person and number marking, the negative stative marker can take a different

form:

(108)   Lelemi (Fiedler & Schwarz 2009: 62-3)

    a.   … nà   ùlòkú   ɔ̄mɛ́nī   ù-bō
        CNJ   woman   DEM   3SG.STAT-have
        '… and this woman had three children.'

    b.   óòwò,   **ɔ̀ɔ̀-dī**   ùbìdī   nà   ú-yè   èjìbì   ú-tè.
        no,   3SG.STAT.NEG-be.qual   child   CNJ   3SG.PFV-buy   fruits   3SG.PFV-give
        'It is not her child that she bought the fruits for.'

Both of these negative stative markers are characterized by a low tone. The shape of these

negation markers is determined by the person and number marking. Fiedler & Schwarz

(2009:66) generalize the marking as follows:

(109)   Person-number marking in the Stative aspect

AFFIRMATIVE		NEGATIVE	
N	1SG	Ì̀ + Ì̀	1SG + NEG
U	3SG	Ù + Ù	3SG + NEG

Negation in the stative aspect in Lelemi will be generalized to a lengthening of the vowel of the

affix marking person and number.

    Like the stative aspect, the negative imperfective aspect has two realizations depending

on the person and number. The first, shown in (110a) is a distinct prefix while the second, shown

in (110b), is a portmanteau affix:

(110)   Lelemi (Fiedler & Schwarz 2009: 63)

    a.   óòwò,   bèlòkúbì   ínyɔ̀   bà-**là**-kā   ɔ̀kū.
        no,   girls   two   3PL.IPFV-NEG-read   book
        'No, the two girls are not reading a book.'

    b.   **nàà**-kālì   ká ...
        1SG.IPFV.NEG-think   COMPL
        'I don't think that …'

The following generalization is adapted from Fiedler & Schwarz (2009: 66):

(111) Person-number marking in Imperfective aspect

AFFIRMATIVE		NEGATIVE		
mÙ	1SG	Ǹ + (l)A	1SG + NEG	
Ù	3SG	Ù + (l)A	3SG + NEG	

Negation in the imperfective will be summarized as the addition of the affix *(l)a-* with the application of additional phonological processes. The tone of this marker is opposite to the tone of the lexical verb (Fielder and Schwarz 2009: 66). Lastly, we will look at the negative future tense:

(112) Lelemi (Fiedler & Schwarz 2009: 63-4)

    a.   ù-**là**-dī.
          3SG.FUT-NEG-eat
          'He will not eat.'

    b.   è-**lé**-bō   kùdíkùdí   lɛ́nɔ̀.
          2SG.FUT-NEG-come   never   also
          'You will never come again.'

And the future markers are generalized as follows:

(113) Person-number marking in Future tense

AFFIRMATIVE		NEGATIVE		
Ǹ	1SG	Ǹ + (l)A	1SG + NEG	
Ù	3SG	Ù + (l)A	3SG + NEG	

The tone of this marker is identical to the tone of the first syllable of the verb. Based on the data and Fielder and Schwarz's (2009) generalizations, the negative prefixes in Lelemi will be summarized as follows:

(114)   Summary of negative prefixes in Lelemi

PREFIX	TENSE/ASPECT	NOTES
tá-	Perfective	
VV-	Stative	long vowel on person & number prefix
(l)A-	Imperfective	polar tone
(l)A-	Future	same tone as first syllable of verb

Lelemi differs from Akan and most Guang languages in the lack of nasal phonemes used for

negation marking.

Sɛlɛɛ (or Selee) [snw] is another Na-Togo language spoken in the Volta Region of

Ghana. Like the others, it is SVO:

(115)   Sɛlɛɛ (Agbetsoamedo 2014: 103)[44]

ba-a-tɔɔ̀-pɛ   si-si
3PL-DP-PROG-plant   CP-yam
'They were growing yams.'

Like many of the previous Kwa languages discussed so far, Selee employs negative prefixes. The

first prefix found in the language is *nA-* which follows the pattern we would expect to find in a

Kwa language. The *nA-* prefix is realized differently in certain contexts:

(116)   Sɛlɛɛ (adapted from Agbetsoamedo 2014: 104, 105)

    a.   nkpo oso sé fa-le   ɔ-lɛɛ   o-mu   fa-**naa**-ye…
        Then so   if 2SG-COP CP-native of Santrokofi CP-full 2SG-NEG-know
        'Then if you are a native of Santrokofi and you don't know…'

    b.   a-pípì   **ni**-kpɛ   alɛ   di-fila   ee   le-sansa   n-**naa**
        CP-sweat   3SG.NEG-work that CP-be.hot or CP-warm 3-not.exist
        'There is no sweat without heat or warmth.'

In (116a) above, [naa] is used as a negative prefix on the verb while in (b) it performs the

function of a negative existential verb. [ni] also appears in (b) as a third person singular negative

verbal prefix. Based on this data the prefix *naa-* appears to have a more generic negative

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[44] Class prefix glossing in Agbetsoamedo (2014) is confusing without sufficient contextualization and so has been simplified in the examples used in this paper.

function as it was derived from the negative existential verb (as suggested by the gloss in (116b)

above) while *ni-* encodes additional information about person and number. The negative prefix in

the following example is similar:

(117)   Sɛlɛɛ (Agbetsoamedo 2014: 115)

sɛ-fa	se-wo	bia	nin-yɛ	ni	kaa-sɔ
CP-grass	CP-some	all	LSM-stand	PRT	CP.PP-ground

nín-sin-wɛ	n-tù	si-a-nyi	ni	oso,	sɛ-fa	n-kpi
LSM.NEG-NEG-have	CP-water	CP-DP-drink	then	so	CP-grass	LSM-die

'even the grass that is on the ground does not get water, so they die.'

Selee contains what Agbetsoamedo (2014) analyzes as Lexical Subject Markers (LSM). In (117)

above, [nín-] is analyzed as an LSM and as negative, [sin-] is analyzed as negative, and [nin-]

and [n-] are analyzed as LSMs. The Selee data from Agbetsoamedo's (2014) paper does not

contain any additional examples of the *nín-sin-* negative prefix combination.

The next negative prefix found in Selee loosely resembles the *lV-* prefix seen in Tuwuli

and Lelemi:

(118)   Sɛlɛɛ (Agbetsoamedo 2014: 105)

Sé	lɛ-nyɛ̀nɛ̀nɛ̀-ɛ	le	ni-ɛ-wa	ni
If	CP-cold-INT	CP	REL-PRES-come	PRT

sé	fe-e-kutu	si-sí	ni	si-**lɔ́ɔ́ba**-bùù	ni
if	2SG-RP-uproot	CP-yam	then	CP-NEG.FUT-rot	PRT

o-kóso	si-ba-kóso	si-**lɔ́ɔ́ba**-bùù
PRG-dry	CP-FUT-dry	CP-NEG.FUT-rot

'Yams don't get rotten when uprooted in cold, they only get dry.'

The negative verbal prefix [lɔ́ɔ́ba-] is made up of *lɔɔ-* and the future prefix *ba-*. Agbetsoamedo's

(2014) data contains no examples of *lɔɔ-* occurring on its own so more data would be required to

determine whether or not this is a productive negative prefix or is only used in this context. The

compound prefix [lɔ́ɔ́ba-] encodes both negation and future tense like the (*l*)*A*- prefix in Lelemi (see 114).

3.4.3 Summary of GTM languages

All of the GTM languages use verbal prefixes to mark negation. Ikposo, Sekpele, and Selee contain negative markers that resemble those in the rest of the Kwa language group. Additionally, Selee shares the *lV*- prefix with Tuwuli and Lelemi, which have relatively complex negation systems. Example (119) below summarizes the patterns found in these languages:

(119)	KA-TOGO		NA-TOGO	
	Ikposo	*na-*	Sekpele	*N-*
	Nyangbo	*tV-*	Selee	*nA-*
		gɛ-		*lV-*
	Tafi	*tÍ-*	Lelemi	*ta-*
		dI-		*VV*
		(gɪ-)		*(l)A-*
	Tuwuli	*ta-*		
		a-		
		lV́-		
		V̋		

The Ghana-Togo Mountain languages tend to have more complex negation strategies than other Kwa languages. It is often not just a matter of adding a negative particle or prefix. The prefixes can be conditioned by the tense, aspect, or person and number. Unlike Akan, Ewe, and the majority of the Guang languages, the Ghana-Togo languages can but do not consistently use a preverbal nasal morpheme to mark negation.

The /t/, /d/, /g/, and /l/-initial negators are features of these GTM languages that set them apart from the rest of the Kwa languages. These features are not found elsewhere in Kwa, so the question arises of where these prefixes came from. It is most likely that, through processes of

migration and language contact, they were acquired from another language group. Example

(120) below contains examples of negative morphemes containing these phonemes:

(120)   Various (cited by Dryer 2009: 8-9)

    a.   Izi (Igboid, Niger-Congo; Meier, Meier & Bendor-Samuel 1975: 217)

       nwó!ké   **té**   è-pfú-**du**   í!yá
       man   NEG   3SG-speak-NEG   3SG
       'the man is not speaking it.'

    b.   Tiv (Bantoid, Niger-Congo; Abraham 1940: 22)

       a   kạhạ   surə   **gạ**
       NC1   hoe   farm   NEG
       'he did not hoe the farm.'

    c.   Bagirmi (Bongo-Bagirmi, Nilo-Saharan; Stevenson 1969: 92)

       deb-ge   tol   tobio   **li**
       person-PL   kill   lion   NEG
       'the people did not kill the lion.'

(a-c) above are intended not as proposals for the origin of the GTM negative markers but simply

as examples of similar negative markers found in other language groups. In conclusion, it is safe

to say that additional historical and comparative data would be required to determine the origin

of the GTM negative markers.

4. Conclusions

4.1 Summary

The following table summarizes the distribution of particles, prefixes, and, in a few cases,

suffixes in Kwa languages:

(121) Particle-affix distribution in the Kwa languages surveyed

SUBGROUP	LANGUAGE	FORM	MORPHEME
Akanic	Akan	Prefix	*N-*
Gbe	Ewe	Preverbal clitic & Post-verbal particle	*mé=...o*
	Gen	Preverbal particle & Post-verbal particle	*mǔ... ò*
	Fon	Particle (post-verb)	*ǎ*
	Gun	Particle	*má*
Guang	Nkami	Prefix	*mʊn-* *mʊnɛ-* *mʊntɪ-* *mà-* *má-*
	Foodo	Prefix	*maN-* *mÈ-nÉ-* *má-*
	Krache	Prefix	*m-* *àá-* *ḿpὲ-* *aN-*
	Gonja	Particle	*máŋ* *máaŋ*
	Chumburung	Particle	*maa* *mʊŋ*
	Nawuri	Particle/Prefix	*maŋ* *mEE*
	Efutu	Prefix	*mV-*
	Leteh	Prefix	*bÉ-*
	Cherepon	Prefix	*bÉ-*
	Gua	Prefix	*bÉ*
Ga-Dangme	Ga	Suffix	*-VV*
	Dangme	Suffix	*-we*

Subgroup	Language	Form	Morpheme
Ka-Togo	Ikposo	Prefix	*na-*
	Nyangbo	Prefix	*tV-*
			gɛ-
	Tafi	Prefix	*tÍ-*
			dI-
			(gɪ-)
	Tuwuli	Prefix	*tA-*
			lV-
Na-Togo	Sekpele	Prefix	*N-*
	Selee	Prefix	*nA-*
			lV-
	Lelemi	Prefix	*ta-*
			VV
			(l)A-

All of the languages designated "particle" refer to preverbal particles unless otherwise stated.

Languages in which the prefix-particle distinction is unclear have been designated

"particle/prefix". These are most likely cases in which a preverbal particle is becoming or has

become a verbal prefix, but there are still remnants of its history as an independent particle in the

orthography. Prefixes are generally preferred by this language group and preverbal negative

particles have a tendency to move toward becoming prefixes as they assimilate to more of the

phonetic features of the verb and take on more verbal features such as tense, aspect, person, and

number.

The Ga-Dangme group stands out from the rest of Kwa in its used of post-verb negation.

There is a strong preference in Kwa for the marker of negation to precede the verb. The table

below provides a summary of the word-order patterns found in Kwa:

(122)   Neg-Verb ordering

Subgroup		Order
Akanic		Neg-V
Gbe	Ewe & Gen	Neg V Neg
	Fon	V Neg
	Gun	Neg V
Guang		Neg V
Ga-Dangme		V-Neg
GTM		Neg-V

The Gbe group is the only one that contains variation within the subgroup. All of the others exhibit consistent Neg-Verb or Verb-Neg ordering, regardless of whether the negative marker occurs before or after the verb.

Fourteen of the Kwa languages have symmetric systems and ten have asymmetric or partially asymmetric systems.

(123)   Summary of negation symmetry

Subgroup	Language	(A)symmetry
Akanic	Akan	Symmetric; Asymmetric: A/Cat
Guang	Nkami	Asymmetric: A/Cat
	Foodo	Asymmetric: A/Cat
	Krache	Asymmetric: A/Cat
	Gonja	Symmetric
	Chumburung	Symmetric
	Nawuri	Symmetric
	Efutu	Symmetric
	Leteh	Symmetric
	Cherepon	Symmetric
	Gua	Symmetric; Asymmetric: A/Cat

SUBGROUP	LANGUAGE	(A)SYMMETRY
Gbe	Ewe	Symmetric
	Gen	Symmetric; Asymmetric: A/Cat
	Fon	Symmetric
	Gun	Symmetric
Ga-Dangme	Ga	Symmetric
	Dangme	Asymmetric: A/Cat
Ka-Togo	Tafi	Symmetric
	Nyangbo	Symmetric
	Ikposo	Symmetric
	Tuwuli	Asymmetric: A/Cat
Na-Togo	Sekpele	Symmetric
	Lelemi	Asymmetric: A/Cat
	Selee	Asymmetric: A/Cat

If a language is listed as having both symmetric and asymmetric negation, this indicates that the system is largely symmetric but exhibits asymmetry in a limited number of grammatical contexts. All cases of asymmetry in the Kwa language group fall under the subtype A/Cat. Nine of the cases of A/Cat asymmetry involve a change in marking of tense and aspect in the negative. Gen provides a single example of a change in the marking of person and number in the negative.

4.2 Jespersen's cycle in Kwa

The only language to exhibit anything resembling Jespersen's cycle or negative concord is Ewe.

(124)   Ewe (Nurse n.d.: 8)

a.   atí   lá   **mé**   kɔ́   **o**
     tree   DEF   NEG   tall   NEG
     'The tree is not tall.'

As was discussed earlier, in Ewe, clausal negation is expressed by the morpheme *me*, which is cliticized onto the first element of the verb phrase and *o*, which occurs at the end of the clause.

This system closely resembles the bipartite negation seen in stage 3 of Jespersen's cycle, exemplified by Written Standard French:

(125)   Written Standard French

       je   **ne**   dis   **pas**
       1SG NEG say.1SG NEG
       'I do not say'

At this point in Ewe, as in French, neither of the negative particles have any meaning other than grammatical marking of negation. Adjei's (2014) account of children's speech provides evidence that unlike what has occurred in French, the preverbal negative marker is not in the process of eroding, at least as of when the 2014 data was collected. Based on the available data, the bipartite system of negation in Ewe is not yet in danger of disappearing. As was demonstrated by the French examples in Section 2.1.4, the bipartite system *ne... pas* persisted for centuries, aided by the writing system, and the verb-initial marker *ne* has only eroded from spoken language in the language's more recent history (noted by Jespersen 1917).

Potential evidence for the existence of Jespersen's cycle can be seen when comparing Ewe with other Gbe languages. Both Fon and Ewe have a vowel sound as the negation marker after the verb while both Ewe and Gun have *mV* preverbal negation marking:

(126)   Gun   NEG VERB   STAGE I
        Ewe/Gen NEG VERB NEG   STAGE II
        Fon   VERB NEG   STAGE III

While Ewe's preverbal negative marker is not currently showing any signs of eroding, it is possible that Fon did have one at some point. Without historical data, it is difficult to say for certain but this comparative data does seem to indicate that Gun may be in the first stage of Jespersen's cycle, Ewe in the middle stage, and Fon in the final stage.

Other than in the Gbe branch of Kwa, there appears to be little to no evidence that Jespersen's cycle is taking place in the Kwa language group. This is only one pattern of development for negation strategies and its attestation outside of Indo-European languages is limited and cannot be considered a universal cross-linguistic phenomenon.

4.3 Concluding remarks

This survey of negation patterns in the Kwa language group intentionally provides only a surface level analysis of negation in each of the languages covered. Future work to be done could focus on each subgroup in turn. These studies would necessarily include prohibitives, negative verbs, and negative indefinites, to name a few important topics. As these are not topics that have been broached in most of these languages, topic-specific language data would need to be collected or elicited. For example, negative indefinites are important to study negative concord. In order to determine a language's use of negative concord, many examples of negative indefinites would need to be collected. There is still much work to do in order to describe negation patterns in the world's languages, especially outside of Indo-European.

Markers of negation are often very old morphemes whose history is difficult to trace. Jespersen's cycle provides a unique look into the development of negation from the Indo-European *ne* to modern spoken French *pas*. By looking at records it is possible to trace the development of *pas* from a lexical to a grammatical word. Unlike many languages in the Indo-European language family, other language families, such as Niger-Congo, do not have the wealth of historical linguistic information preserved in centuries of texts. Without this historical and comparative information, it is difficult to trace the origin of many grammatical morphemes, including the negative marker, back to their lexical origins. For these language families with relatively younger writing systems, it will be important to document the changes in their

negation patterns as the languages change. By doing this, a new foundation can be laid for

observing the development of negation patterns in a wider variety of languages.

Abbreviations

1	First person	ITR	Iterative	*Tone marking*	
2	Second person	ITIV	Itive	V́	High tone
3	Third person	LOC	Locative	V̀	Low tone
ACC	Accusative	LSM	Lexical subject marker	V̂	Falling tone
ACT	Active	NEG	Negative	V̋	Extra-high tone
ATR	Advanced tongue root	NPS	Noun phrase subject focus	V↓	Downstep
CNG	Connegative	NPST	Non-past		
COND	Conditional	NSF	Noun class suffix		
CNJ	Conjunction	OBJ	Object		
CONS	Consecutive	PFV	Perfective		
CONT	Continuous	PL	Plural		
COP	Copula	POSS	Possessive		
(N)CP	(Noun) Class prefix (& agreement marking)	POT	Potential		
DEF	Definite	PP	Preposition		
DEM	Demonstrative	PRES	Present		
DIRV	Directional verb extension	PRF	Perfect		
DP	Distant past	PRG	Progressive		
EMPH	Emphatic	PROS	Prospective		
FAC	Factative	PRT	Particle		
FOC	Focus	REL	Relative		
FUT	Future	REF	Referential		
GEN	Genitive	RFLX	Reflexive pronoun		
GTM	Ghana-Togo mountain	RP	Recent past		
HAB	Habitual	SBJV	Subjunctive		
ID	Identifiability marker	SG	Singular		
IMP	Imperative	STAT	Stative		
INT	Intensifier	SUBJ	Subject		
IPFV	Imperfective	SVC	Serial verb construction		
INDF	Indefinite	TAM	Tense, aspect, modality		
IRR	Irrealis	TOP	Topic		

Capital letters within morphemes indicate that the realization of the sound is dependent on some assimilation process.

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Appendix

Overt markers of negation are usually easy to detect. Each marker's form, placement, and scope should be investigated. In an investigation of negation in a given language, the following questions need to be answered (Dixon 2012:133-4):

- If a negative particle is used in the language, does it apply to main clauses, subordinate clauses, clausal constituents, and/or internally within a noun phrase?
- If morphological negation is used, what grammatical category of word does it apply to.
- Any other idiosyncrasies found in negative constructions.

Consultant Name: __Michael Obiri-Yeboah__

Date: __March 26, 2017___

Gua (South Guang) data:

				Consultant notes:
(1)	kòfí	hù	yâw	*Consultant notes:*
	Kofi	see.HAB	Yaw	There is no distinction between habitual aspect and present tense in Gua.
	'Kofi sees Yaw.'			
(2)	kòfí	bé-hù	yâw	
	Kofi	NEG-see.HAB	Yaw	The negative marker is bɛ́- but it undergoes harmony to become bé-
	'Kofi does not see Yaw.'			
(3)	kòfí	hú	yâw	íɲídì
	kofi	see.PST	Yaw	yesterday
	'Kofi saw Yaw yesterday.'			
(4)	kòfí	bé-ǹ-hú	yâw	íɲídì
	Kofi	NEG-?-see.PST	Yaw	yesterday	Not sure what the nasal is but it could be separate so you may have an idea by considering other works on Kwa languages
	'Kofi did not see Yaw yesterday.'			
(5)	kòfí	bè-hú	yâw	átɕ̃ɪ
	Kofi	FUT-see.FUT	Yaw	tomorrow
	'Kofi will see Yaw tomorrow.'			

						Consultant notes:
(6)	kòfí	bè-é-hú		yâw	átɛ̀ɪ̃	
	Kofi	FUT-NEG-see.FUT		Yaw	tomorrow	
	'Kofi will not see Yaw tomorrow.'					

(7)	kòfí	ɛ́ɛ́-bʷɛ̀		ésímì	
	Kofi	PROG-do.PROG		work/job	
	'Kofi is working.'				

(8)	kòfí	bɛ̀ɛ́-bʷɛ̀		ésímì	bɛ́ + bɛ̀ɛ́ becomes bɛ̀ɛ́-
	Kofi	NEG.PROG-do.PROG		work/job	
	'Kofi is not working.'				

(9)	kòfí	bɛ̀ɛ́-bwɛ̀		ésímì	hɛ̀	
	Kofi	NEG.PROG-do.PROG		work/job	again	There is another way of saying it which could be described as perfective
	'Kofi is not working again.'					
	kòfí	ɛ́ɛ̀-fáɪ̃́	ní	ésímì	ɔ̀-bwɛ́	
	Kofi	PERF-stop.PERF	FOC	work/job	?-do.PST	I'm not sure of what the ɔ- is.
	'Kofi has stopped working.'					

(10)	kòfí	ɛ́ɛ́-ʥã̀ɪ̃́	dí	á-bwɛ̀	ésímì	
	kofi	PROG-search	COMP	3SG-do.PROG	work/job	
	'Kofi intends to work.'					

(11)	kòfí	bɛ̀ɛ́-ʥã̀ɪ̃́	dí	á-bwɛ̀	ésímì	
	kofi	NEG.PROG-search	COMP	3SG-do.PROG	work/job	
	'Kofi does not intend to work.'					

(12)	kòfí	éè-hú		yâw
	Kofi	PERF-see.PERF		Yaw
	'Kofi had seen Yaw.'			

(13) kòfí béè-ǹ-hú yâw Kofi NEG.PERF-?-see.PERF Yaw 'Kofi had not seen Yaw.'		***Consultant notes***: bɛ́- + ɛ́ɛ̀- + n- becomes béèn- and ends up becoming béén- when they harmonize. I still don't know what the nasal represents
(14) kòfí bɛ̀tí hú yâw Kofi never see.PST Yaw 'Kofi has never seen Yaw.'		
(15) sɛ̀ kòfí é-ǹ-hú yâw à, á-bɛ̀ɛ́-bwɛ́ ésímì if Kofi ?-?-see.PST Yaw DET 3SG-NEG.PROG-do.FUT work 'If Kofi₁ sees Yaw₂, he₁ will not work.'		Here too I can't tell the appropriate gloss for both é- and n-
(16) kòfí hù yâw ǹsó á-bɛ̀ɛ́-bwɛ́ ésímì Kofi see.HAB Yaw but 3SG-NEG.PROG-do.PST work/job 'Kofi₁ sees Yaw₂ but he₁ is not working.'		
(17) kòfí hù yâw ásɛ̀ bɛ̀ɛ́-bwɛ́ ésímì Kofi see.HAB Yaw REL FUT.NEG.PROG-do.FUT work/job 'Kofi₁ sees Yaw₂, who₂ will not work.'		
(18) kòfí bè-é-hú yâw Kofi FUT-NEG-see.FUT Yaw 'Kofi will not see Yaw.'		

(19)	Kòfí	bé-hù	yâw	ńdí	***Consultant notes***:
	Kofi	NEG-see.HAB	Yaw	today	
	'Kofi has not seen Yaw today.'				

(20)	kòfí	k͡pà	
	Kofi	tall/long	
	'Kofi is tall.'		

(21)	kòfí	bɛ́-ŋ͡m-k͡pà
	Kofi	NEG-?-tall
	'Kofi is not tall.'	same n- as before /n-/ is becoming [ŋ͡m]/ k͡p

(22)	ɔ́jì	à	bɛ́-ŋ͡m-k͡pà	The nasals without specific glosses seem to occur before verbs marking past tense and perfective aspect. It can also occur before adjectives so you may need to figure them out.
	tree	DET	NEG-?-long/tall	
	'The tree is not tall.'			

(23)	bwɛ̀	ésímì	
	do.IMP	work	
	'Work!'		

(24)	bɛ́-bwɛ̀	ésímì	
	NEG-do.IMP	work	
	'Don't work!'		

(25)	kòfí	bé-ǹ-hú	yâw	á	
	Kofi	NEG-?-see.PST	Yaw	Q	
	'Didn't Kofi see Yaw?'				