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Full Length Research

Revisiting Habitual Aspect in Sɛkpɛle: Is it Vowel Harmony?

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Abstract

Habitual aspect marking in African languages has garnered a great deal of attention in the extant literature, with languages exhibiting distinctiveness in marking habituality. A study by Delalorm (2016) claims that Sɛkpɛle marks habituality solely with the particle /á/. We observe that the particle /á/ is phonologically conditioned and inflects accordingly, hence the present study. We therefore give a detailed and systematic account of habitual aspect marking in the language. The paper's data sources include elicitation from 10 native speakers and the Sɛkpɛle Bible. From the perspective of Autosegmental phonology, we argue that the particle /á-/ has different allomorphic variants: ***a, ə,*** and *e*, *triggered by a phonemic feature of the first stem vowel. Our analysis reveals that the habitual marker /á-/ is generally associated with verb stems ending in /e, a, o, ɛ, ɔ/, while /e/ is linked to stems ending in /u, i/, and /ə/ tends to occur with stems that end in /ə/. These variations are closely linked to the phenomenon of vowel harmony present in the language. The findings thus expand on the phenomenon of habitual marking in Sɛkpɛle and show the influence of phonological forms on morphosyntax in GTM/Kwa languages.*

Keywords: Sɛkpɛle, Advanced Tongue Root (ATR), Vowel Harmony, Habitual, Phonologically Conditioned

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1.0 INTRODUCTION

This paper discusses habitual aspects in Sɛkpɛle. Sɛkpɛle is a Ghana-Togo Mountain (GTM) Language spoken by the people of Likpe in the Oti Region of Ghana. The language is tonal and has a syllable type of V, N, CV, CVV, CLV, CGV, and NCV (Ring, Okyerefo & Somevi, 2002). Generally, the Sɛkpɛle language has four dialects, namely: Sela (spoken in Bala and Kukurantumi), Semate (spoken in Mate and Abrani), Situnkpa (spoken in Agbozume, Avedzeme and Koforidua) and Sekwa (spoken in Todome, Bakwa and Nkwanta) (Ameka, 2002). Despite this, the lects are grouped into two (2) main dialects: Sekwa and Sɛkpɛle (Non-Sekwa) (Tornu, 2009). Three of the dialects: Sela, Semate and Situnkpa are grouped as one (Sɛkpɛle), because they are similar, while they differ from Sekwa mainly in terms of differences in the sounds employed in the lexemes. While Sɛkpɛle employs more voiceless sounds, Sekwa uses voiced sounds (Tornu, 2009). We illustrate the segmental variations in (1).

(1) a. lè-kpómé (Sɛkpɛle)
NCL-stool
'a stool'

b. lè-gbómí (Sekwa)
NCL-stool
'a stool'

As observed in (1), the stem noun in Sɛkpɛle uses the voiceless consonant /kp/, whereas Sekwa uses the voiced consonant /gb/. Additionally, the final vowel in 1a is /e/ and in 1b is /i/, but the meaning is unchanged. Moreover, the dialects are mutually intelligible. Sɛkpɛle also has a root-controlled ATR vowel harmony system where the first syllable of the stem determines the ATR value of the prefixes (Ameka, 2007, 2017), a feature that is common to all GTM languages. Previous research on marking habitual in Sɛkpɛle suggests that the language expresses an imperfective aspect using the morpheme /á-/, which is prefixed to the verb root (Delalorm, 2016). Witness one of his examples, labelled as (2) below:

(2) ewu! nko te bəətə nə
éwú ńkò tè bà= á- tá ná
grandmother like.that only 3PL.NOM.PST=HAB give really

'Grandma! That is how they often used to give presents really.'
(Delalorm, 2016, p. 327)

In example (2), the habitual marker *a-* (the underlying form) is realised as *ə-* in the surface form. Assuming the habitual marker is *a-* in all phonemic environments, what triggered the allomorphic variant *ə-* is left unexplained. Therefore, in this study, we argue that Delalorm's (2016) claim is fundamental and requires further investigation.

The paper is structured into seven sections: Section 2 states the objective that underpins the study. Section 3 explores relevant literature to contextualize the study, while Section 4 outlines the research methodology. Section 5 discusses the theoretical framework that guides the analyses. Section 6 presents the findings and discussions, and finally, Section 7 draws a curtain on the study and provides acknowledgements.

1.1 Study Objectives

The interaction between phonology and morphosyntax in Ghana-Togo Mountain languages and Kwa languages appears underexplored. Using the Autosegmental phonology as the theoretical framework, this paper examines the claim that the habitual aspect marker in Sɛkpɛle is solely *a-*.

2.0 LITERATURE REVIEW

The habitual aspect refers to a situation that is protracted over a long period of time or occurs frequently during an extended period, to the point that it becomes the characteristic feature of the whole period (Comrie, 1976, p. 27). Consequently, the occurrence is anticipated to persist beyond the moment of utterance (Campbell, 2017). Habitual markers evolve from expressions that embody events aligned with habitual significance. The habitual action may be marked for tense: present or past (Westermann, 1930). This aspect can be marked through various linguistic mechanisms, such as specific verb forms, auxiliary verbs, adverbs, tone, or even through context and syntax (Aziaku, 2012; Bannick, 2005; Comrie, 1976; Delalorm, 2016; Osam, 2016); however, the mechanism employed may differ cross-linguistically. A survey of extant literature reveals striking cross-linguistic tendencies for particular particles marking habitual aspects in a language to be grammatically or phonologically conditioned (Aziaku & Awoonor-Aziaku, 2021; Aziaku & Goku, 2024; Campbell, 2017; Jufrizal, 2019; Nose, 2023). Ewe marks habitual use of the suffixes -na/-a, with their choice being determined by the type of verb, whether transitive or intransitive (Atakpa, 1993; Aziaku, 2012; Aziaku & Awoonor-Aziaku, 2021; Aziaku & Goku, 2024). In contrast, the marker for habituality in the Tɔŋu Ewe is phonologically conditioned; the final vowel of the verb determines the selection of the marker. The occurrence in Tɔŋu Ewe is similar to marking habitual also in Ga. In Akan, the habitual aspect is marked by tone (Osam, 2016), which can be high or low, contrary to Duah and Savic (2020), who argue that it is marked with a high tone. The tone is incorporated into one of the syllables of the verb stem (Boadi 2008, p. 12). Gonja also uses the pre-verbal particle *bee*, which has the same form and position to mark both habitual and progressive aspects. Thus, semantics and context play a vital role in determining the specific aspects that are referred to (Malik, 2023). These languages (all Kwa languages), though genetically related, seem to contrast in how they mark habitual aspects. The habitual marker can be an independent particle (in Gonja) or an affix (in Sɛkpɛle, Ewe and Ga) or phonologically marked by tone (in Akan). While other allomorphic variants of habitual markers discussed so far are triggered by vowel harmony between the vowel final of the verbs and the basic form of the markers, the situation in Sɛkpɛle appears to be triggered by Advanced Tongue Root (ATR) harmony present in the language.

2.1 Previous Study on Habitual Aspects in Sɛkpɛle

Delalorm (2016) argues that Sɛkpɛle marks habituality with the morpheme *á-,* prefixed to the verb. He notes that the habitual marker can occur in constructions involving both lexical and pronominal subjects. According to him, if the habitual marker occurs in a construction with a subject NP, the meaning expressed is said to be ongoing, and its range covers prior or current situations to reference time. He gave these examples to illustrate this point.

(3) a. Osani əmə ake ntu məmlə
ò-sànî á-má á-kè ńtù məmlá
NCL1-man NCL1-the HAB-swim water quickly

'The man swims quickly.'

b. ubuki əmə ayĩ buabua
ò-bùkí á-má á-yĩ búàbúà
NCL1-animal CL1-the HAB-smell badly

'The animal smells bad.'
(Delalorm, 2016, p. 326)

Likewise, the habitual marker can occur in a construction with both past and non-past subject pronouns. If it occurs with the past subject pronoun, then it may have a past habitual meaning and is used to account for past habitual occurrence of a state of affairs or event (4).

((4) ewu! nko te bəətə nə
éwú ńkò tè bà= á- tə́ nə́
grandmother like.that only 3PL.NOM.PST=HAB give really

'Grandma! That is how they often used to give presents, really.'

Nonetheless, if it co-occurs with a non-past subject pronoun,
then it takes a general habitual meaning (5).

(5) waakpe mba lə kutu əsuə
wà= á- kpé m̀bá lə́ kútù ə̀súə̀
3SG.NOM=HAB-add salt LOC soup body

'He adds salt to soup.'
(Delalorm, 2016, p. 327)

In example 4, the habitual marker *á-* in its underlying form changes to *ə́-* in its surface form. The question is: if the habitual marker in Sɛkpɛle is *á-*, what triggered the change from *á-* to *ə́-* in example 3, while 4 maintains the basic *á-* even in the surface form? In 4, we assume the subject pronoun also changed from *bá* to *bə́,* due to assimilation from the altered habitual marker. We provide a possible analysis for the puzzle raised here in (§3.2).

2.2 Vowel Harmony in Sɛkpɛle

Studies like Ameka and Essegbey (2017) and Delalorm (2009, 2016) argue that vowel harmony is prevalent in Sɛkpɛle and is productive in lexical and morpho-syntactic structures. Vowel harmony is a phonological process whereby vowels in a certain designated domain share one or more phonological features (Katamba, 1989, p. 211). Likewise, Goldsmith (1990) maintains that vowel harmony is a system in which the vowels of a language are divided into two subsets such that vowels in a given word (or domain) generally come from a single subset. The shared phonological features could be ATR, height, backness or roundness (Katamba, 1989). However, the harmony in Sɛkpɛle is limited to the ATR and height feature of correspondent vowels, and it is obligatory between the first vowel of the stem and the prefixes. The first stem vowel closest to the prefix spreads its corresponding feature to the prefix vowel (Delalorm, 2009), while suffixes are unaffected by vowel harmony. Contrary to Delalorm (2009, 2016) who proposes a ten (10) vowel system for Sɛkpɛle, the present study adopts the eight-vowel system proposed by Ameka (2002), Ameka & Essegbey (2017), Heine (1968), Lomotey (2009), Ring et al. (2002), and Tornu (2009). We argue with examples in (§5.0) to show that the two additional vowels / ɪ and ʊ/ by Delalorm (2009, 2016) are lost. Having adopted the eight-vowel system, the two subsets of the ATR groupings become:

SET 1 (+ATR)		**NEUTRAL**	**SET II (-ATR)**	
-back	**+back**		**-back**	**+back**
i	**u**			
e	**ə**	**o**	**ɛ**	**ɔ**
		a		

(Tornu, 2009, p. 95)

We adopt and adapt Delalorm's vowels re-grouping into three (03) according to the kind of vowel harmony they trigger, as follows:

Group 1: /e, a, o/ trigger [+ATR] harmony
Group 2: /ɛ, ɔ/ trigger [-ATR] harmony
Group 3: /i, ə, u/trigger [+ATR, +high] harmony

As shown above, stems with [+ATR] vowels trigger [+ATR] harmony with their prefixes, likewise stems with [-ATR] vowels. However, for a height harmony to occur, the stem vowel must be a [+ATR] and [+high]. Similar to Akan (Dolphyne 1988; Odoom & Adomako 2021), vowel harmony in Sɛkpɛle occurs in an anticipatory (regressive) assimilation (Delalorm, 2016), where the first vowel of the stem assimilates the prefix vowel regressively, even if the stem is multisyllabic. We illustrate this with the following examples:

(6) ɔ-kpɛlé
CM.SG-Likpe person
'A Likpe person'

In 6, the first stem vowel belongs to the [-ATR] set; therefore, it takes a corresponding [-ATR] vowel as its prefix. We also observed that the stem is disyllabic. The second syllable has a [+ATR] vowel /é/; however, the second syllable remains unaffected by the vowel harmony. On the contrary, in Akan, vowel harmony is a property of a word: all the vowels in a particular word belong to the same ATR set (Dolphyne 1988). The harmonic process in Dagara is bidirectional (Kuubezelle & Akanlig-Pare, 2017). Moreover, Delalorm notes that Sɛkpɛle has a noun class system with specific subject pronouns for marking tense, aspect and mood (TAM). The subject pronouns alter to agree in number and are

influenced by vowel harmony, triggered by the first syllable of the verb (Delalorm, 2016).

On this basis, we explain the change of *bá* (3SG) + *á* (HAB) + *tə* (give) to *bə́ə́tə* in 4 above. Since the vowel of the verb stem in *bəətə* is /*ə/*, and the prefix vowel *a-,* which is the habitual marker, which is a [-back, -high, neutral ATR], raises to the height of the stem vowel. The assimilated prefix vowel spreads its [+high] feature further to the vowel of the pronominal subject, resulting in a change of the subject pronoun from *bá* to *bə* (regressive assimilation). There is also an [extra high] tone that is incorporated into the pronominal subject, indicating a past meaning. It implies that, probably, the subject pronoun may not necessarily be a past subject pronoun; rather, the extra high tone feature on the syllable may be an indication of the past tense it carries. Similarly, in example 4, the prefix vowel *a-* retains its form even when the vowel of the stem is *e*, [+front, +high, +ATR]. Interestingly, the prefix *a-* co-occurs with [+/- ATR] first stem vowels because it is ATR neutral. The vowel of the subject pronoun also remains unchanged since it shares the same ATR feature as the habitual marker. The tone on the pronominal subject also remains a [+high] signalling a normal habitual meaning. It follows that the extra high tone on the pronominal subject indicates a past habitual meaning, whereas a high tone conveys a normal habitual meaning.

2.3. Theoretical Framework

2.3.1 Autosegmental Phonology

Autosegmental phonology is a theory that is propounded by Goldsmith (1976) in response to the problems encountered by generative phonology. One of such problems is the representation of more than one suprasegmental feature on a single vowel in a syllable. In response, autosegmental phonology presents a model that places phonological features on separate parallel tiers, and the tiers are linked by association lines and a well-formedness condition (Goldsmith, 1976). This theory covers not only the treatment of the representation of tones and intonations on a vowel but also allows features like nasality and vowel harmony to spread across separate tiers in phonological representations (Clements & Goldsmith, 2010; Nervins, 2010; Walker, 1998). By assigning phonological features to separate tiers, the theory has been able to account for phonological processes such as assimilation and deletion, where a phonological feature from a particular tier spreads to nearby sounds, resulting in a vowel carrying multiple suprasegmental features (Clements, 1980). The autosegmental phonology is essential in the analyses in this paper as it explains the vowel harmony process in Sɛkpɛle, where each vowel is associated with a harmony feature and how one stem vowel triggers the harmony by spreading its corresponding ATR or height feature onto the prefix vowel, culminating in the prefix vowel altering to adopt the ATR feature of its first stem vowel.

3.0 METHODOLOGY

Data for this study were collected using a combination of primary elicitation and secondary textual analysis. The primary data were elicited from ten native speakers of Sɛkpɛle, aged 20–55, representing both male and female participants, and drawn from the dialect areas of Bala, Mate, and Todome. The participants included 04 (from Todome) and 03 (each from Bala and Mate) native speakers selected based on their fluency and regular use of the dialects, ensuring a reliable reflection of habitual constructions. Each participant was asked to produce sentences describing their daily routines and habitual actions, which were recorded with consent. These elicited sentences were then phonemically transcribed using the orthography standardised in the Sɛkpɛle Bible to maintain consistency. One of the author's native speaker intuitions was also vital in the data elicitation and analyses.

Secondary data were solely obtained from the Sɛkpɛle New Testament (Wycliffe Bible Translators, 2008), where habitual markers were identified systematically across verbs. All forms were cross-verified against elicited data to confirm the allomorphic variants of the habitual marker. The analysis was primarily qualitative, guided by Goldsmith's (1976) Autosegmental Phonology, focusing on the interaction of ATR and vowel height features with prefixal habitual markers. This approach ensured that the phonological conditioning of habitual markers could be systematically traced and explained.

4.0 FINDINGS

In this section, we demonstrate that *á-* is fundamental in marking the habitual aspects in Sɛkpɛle*.* However, *á-* has three (03) allomorphic forms: *á-, e-,* and *ə-* triggered by the ATR and height value of the first syllable of the stem. The results indicate a systematic relationship between the first syllable of the verb stem and the surface form of the habitual marker. Specifically:

(1) Stems with /e, a, o/ trigger [+ATR] harmony, causing the prefix /a-/ to surface as /a/.

(2) Stems with /ɛ, ɔ/ trigger [-ATR] harmony, with the prefix remaining /a-/ or slightly adjusted depending on the harmonic context.

(3) Stems with /i, ə, u/ trigger both [+ATR] and [+high] harmonic assimilation, resulting in the prefix surfacing as /e or ə/.

These patterns are summarised in Table 1, which provides input-output forms for each vowel class. From these results, it is clear that the habitual marker is phonologically conditioned, rather than being invariant,

supporting the hypothesis that vowel harmony governs its surface alternations. For ease of interpretation, a concise phonological rule is proposed:

/a-/ → /e, ə/ / ___[+ATR, +high]
/a-/ → /a/ / ___[+/- /neutral ATR]
(depending on the first stem vowel)

This formalisation allows the reader to clearly see the underlying phonological logic behind the observed allomorphy.

4.1 Forms of Habitual Markers in Sɛkpɛle

We discuss the forms of habitual aspect markers in Sɛkpɛle with respect to nominal and pronominal subjects. Note that all vowels above the low vowel are considered as high in this context.

4.1.1 Subject Noun Phrases

Nominal subjects occurring with the habitual marker stand independent from the predicate phrase, while the habitual marker is prefixed to the verb stem. Table 1 below presents monosyllabic stems ending in all eight (08) vowels of Sɛkpɛle and their input and output forms when they co-occur with the basic form of the habitual marker.

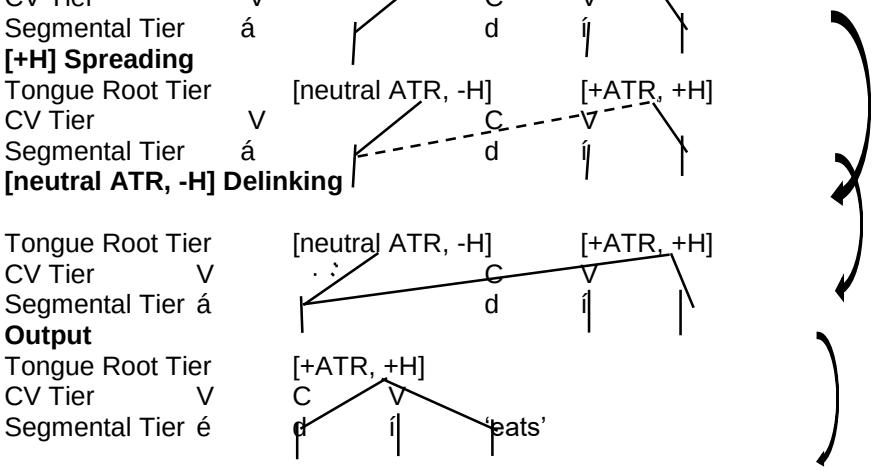
Table 1: Verb stems with their habitual input and output forms

Vowels	Stems	Gloss	Input	Output	Gloss
i	dí	eat	á-dí	é-dí	eats
e	kè	swim	á-kè	á-kè	swims
ɛ	lɛ́	hold	á-lɛ́	á-lɛ́	holds
ə	bə́	come	á-bə́	ə́-bə́	comes
a	kpá	sweep	á-kpá	á-kpá	sweeps
u	sù	go	á-sù	é-sù	goes
o	wó	pound	á-wó	á-wó	pounds
ɔ	kpɔ̀	fight	á-kpɔ̀	á-kpɔ̀	fights

4.1.2 Autosegmental Representations

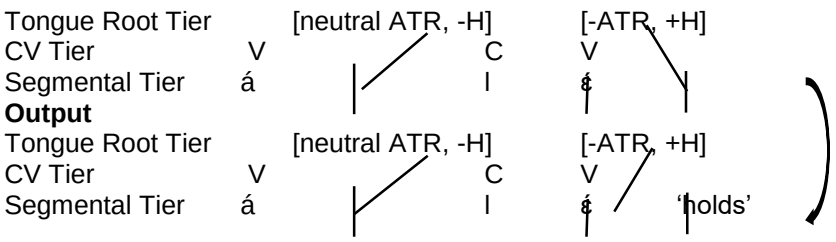
The autosegmental representations in 7a-c show a regressive harmonic process happening between the [+ATR, +H] verb stem and the prefix vowel on the one hand, the [-ATR, -H] verb stem on the other hand, and lastly the [neutral ATR, -H] verb stem. In the analysis, /a/ is assumed as the low vowel, while all other vowels above it are considered as [+high].

(7a) *[+ATR, +H] verb stem and the prefix vowel*

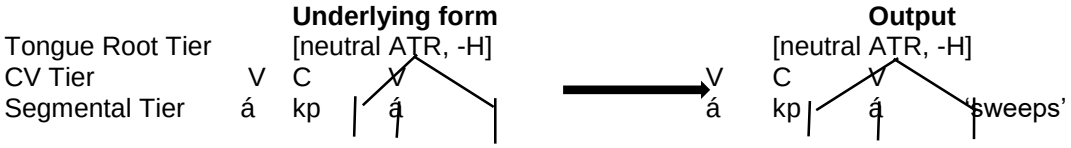


(7b) *[-ATR, +H] verb stem and the prefix vowel*

Underlying form



(7c) *[Neutral ATR, -H] verb stem and the prefix vowel*



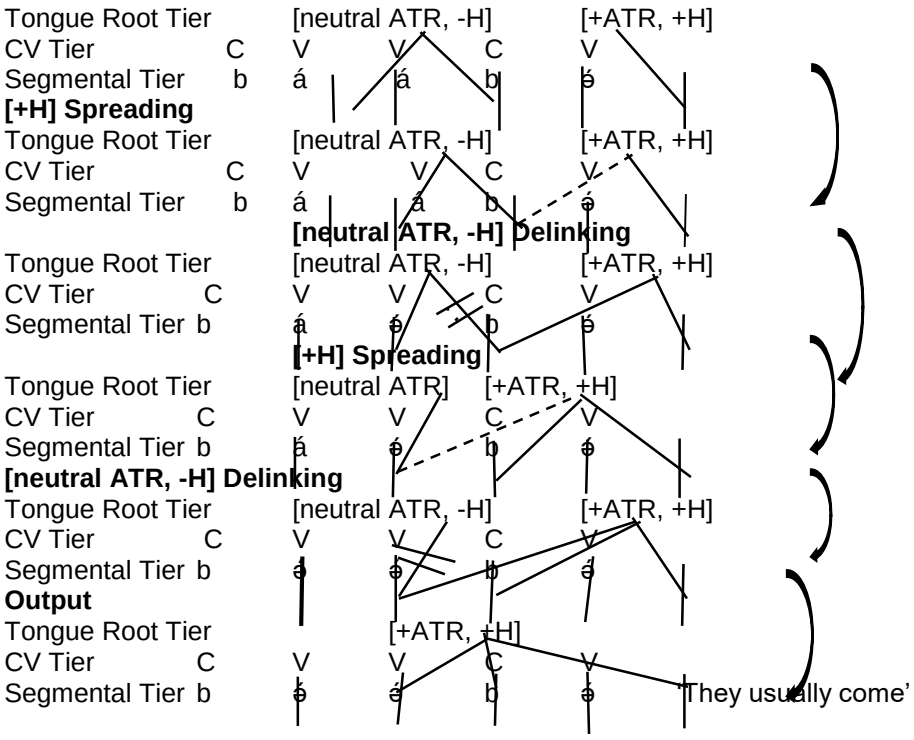
As observed in 7a-c above, the stem vowel in 7a belongs to the subgroup 3 (see § 3.2); therefore, it triggers a [+ATR, +high]. The prefix vowel, which was initially a [neutral ATR, -high] vowel, alters to *e-,* which is a [+ATR, +mid-high] vowel. In 7b and c, the underlying forms are the same as the output forms. The prefix vowel in 7b is [neutral ATR, -high]; therefore, it co-occurs with both [+/-ATR, +/-high] first stem vowels. In 7c, both the stem and prefix vowels have [neutral ATR, -high] values. It follows that the harmony in 7b-c is restricted to ATR harmony only.

In this section, we demonstrate that the prefix vowel further assimilates the vowel of the subject pronoun, altering the syllable of the pronoun to harmonize with the prefix vowel. The spread occurs after the prefix vowel has undergone a harmony with the first syllable of the stem. The assimilation is attributed to the proximity of pronominal subjects to the prefix vowels. Unlike subject noun phrases (§ 5.1), the pronominal subjects are bound together with the prefix vowel and the verb stem, resulting in further harmony (8).

(8a) *[+ATR, +H] verb stem with the prefix vowel*

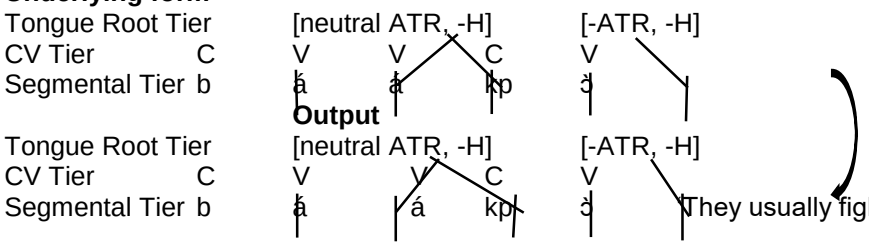
4.2 Pronominal Subjects

Underlying form



(8b) *[-ATR, -H] verb stem with the prefix vowel*

Underlying form

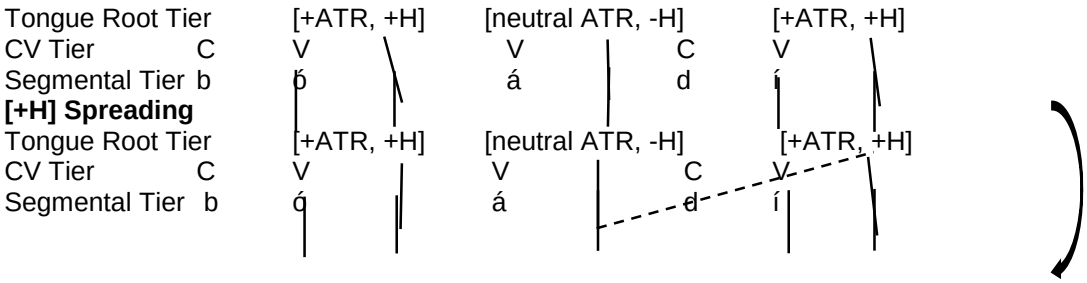


Examples 8a and 8b show double assimilation: one with the stem and prefix vowels, and the second with the prefix and pronominal subjects' vowels. After the harmonic process between the stem and prefix vowels in 8a, the prefix vowel further spreads its [+high] feature onto the pronominal subject vowel. However, in 8b, the prefix vowel did not alter in form, although there was ATR harmony. This is because the prefix vowel *a-* is ATR neutral. Additionally, the pronominal subject's vowel in 8b remains the same because it is also ATR neutral.

In 9a, we observe a harmony between the habitual marker and the stem vowel, yet there was no further assimilation as we observed for 8a.

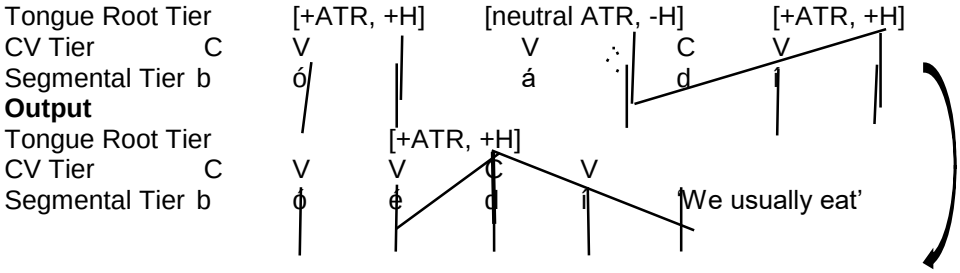
(9a) *[+ATR, +H] verb stem with the prefix vowel*

Underlying form



[+H] Spreading

[Neutral ATR, -H] Delinking

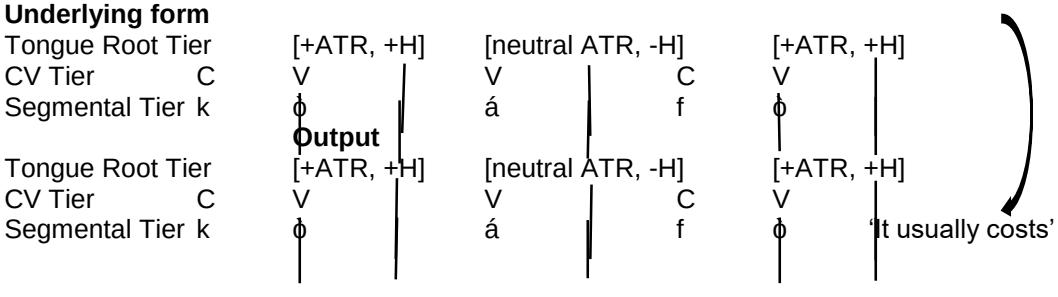


As observed in (9a), the altered prefix vowel did not assimilate and the subject pronoun, although the prefixal vowel changes from a [neutral ATR, -high] to a [+ATR, +high] vowel in the output. The form of the pronominal subject vowel is maintained because it shares the same ATR value and height feature of the prefix vowel.

Unlike 9a, the harmony in 9b is triggered by the [+ATR] value of the prefix and first stem vowels only. The form of the pronominal subject vowel is maintained since the prefix vowel occurs with both [+/- ATR] vowels.

(8b) *[+ATR, +H] verb stem with the prefix vowel*

Underlying form



The generalisation, therefore, is that the basic form of the habitual marker *a-* becomes:

(10) /e/ when it collocates with stems with /u, and i/ as the first syllables.

(11) /ə/ when it co-occurs with verb stems with /ə/ as the first syllable

(12) /a/ when it is paired with verb stems with /e, a, o, ɛ, ɔ/ as the first syllables

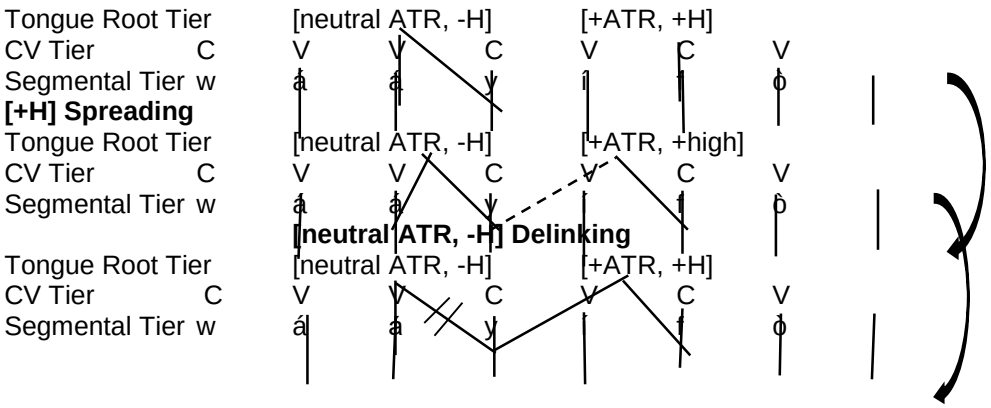
The harmony between the prefixal vowel and the first syllable of the verb, on the one hand, and the prefix vowel and the subject pronoun on the other hand (8a) leads to this conclusion: that the vowel of the subject pronoun harmonises with the already harmonised habitual marker only when both vowels have contrastive ATR and height features.

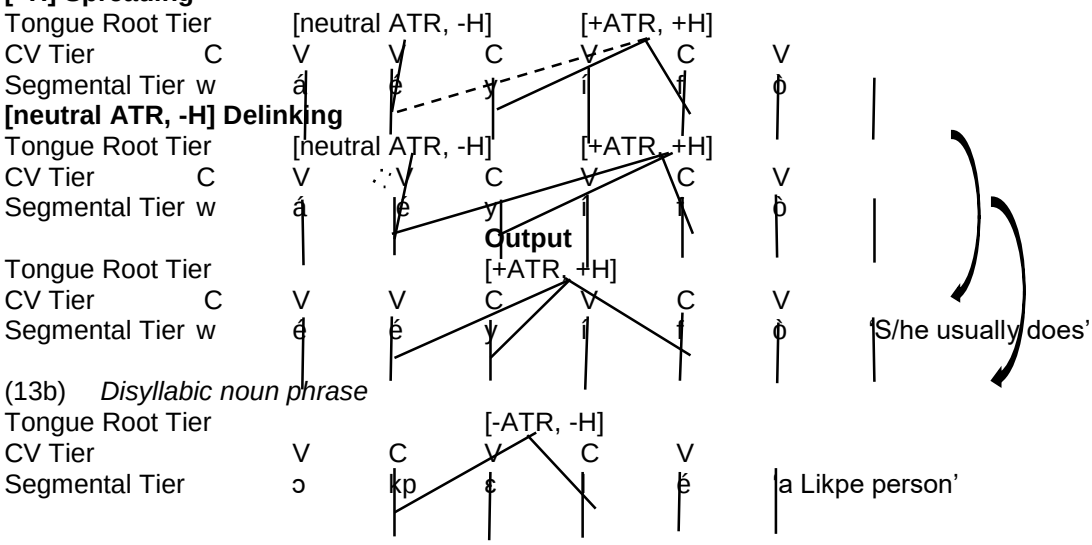
6.3 Disyllabic Stems

As noted earlier in the study, vowel harmony in Sɛkpɛle occurs only between the prefix and the first stem vowels, even when the stems are disyllabic (13).

(13a) *[+ATR, +H] disyllabic verb stem with the prefix vowel*

Underlying form





(13b) *Disyllabic noun phrase*

From the foregoing, it is clear that vowel harmony in Sɛkpɛle is not solely a property of a word, but can extend to other domains. Nonetheless, regardless of the domain in which it occurs, the trigger always emanates from the first vowel of the stem and regressively harmonises with the prefix and further to the vowels of pronominal subjects in some instances (see example 13).

Independent evidence from the literature shows a similar harmony between the vowels of verbs and the habitual markers in some Kwa, GTM and Benue-Congo languages in Africa. For instance, in Tɔŋu (Kwa), the final vowel of the verb triggers the harmony by either raising, lengthening, palatalising, or labialising the basic form of the habitual marker -a (see Aziaku & Awoonor-Aziaku, 2021) (14).

(14) Ewɔɔ
E-wɔ-a
3SG-do-HAB

'S/he does'

Ga (Kwa) has two forms of the habitual marker: *-a/-ɔ.* Verbs ending in /*a*/select the habitual form *-a*, and verbs with all other vowels take the form *-ɔ* (Aziaku & Goku, 2024) (15).

(15) Ehoɔ omɔ
E-ho-ɔ omɔ
3SG-cook-HAB rice

Avatime (a GTM language) has two forms of the habitual marker: ***zĕ-/zɛ̆-***, and their selection is determined by the [+/-ATR] value of the first syllable of the verbs. Like Sɛkpɛle, verbs with [+ATR] first syllables take ***zĕ-*** and [-ATR] first syllable verbs take ***zɛ̆-*** (16).

(16) a. i-ze-tse
C1S-HAB-die
'He is normally sick.'
b. i-zɛ-dɔ
C1S-HAB-sleep
'He always sleeps.'
(Defina, 2009, p. 26)

Àbèsàbèsì (a Benue-Congo language) has three forms of the habitual marker: màá, mèé, and mòó. The form màá pairs with verbs with [-ATR] vowels, and verbs with [+ATR] vowels select any of the remaining two forms (17).

(17) a. Olú màá das
Olú HAB. go
'Olu usually goes'
b. Ọ́ mèé di bàtà
S/he HAB. buy shoe
'S/he usually buys a pair of shoes.'
c. Àó mòó fù aye
We HAB. cook beans
'We usually cook beans'
(Olaogun & Oyelade, 2025, p. 482)

The examples (14-17) emphasise that vowel harmony in language differs cross-linguistically. As observed, the harmony in the Kwa languages (14-15) is progressive and is restricted to the place of articulation and height of the final vowels that end the verbs and their suffixes. On the contrary, the ATR values of the vowel in the verbs influence the choice of the habitual marker in Avatime and Àbèsàbèsì. Apparently, habitual marking in Sɛkpɛle and Avatime (GTM languages) is phonologically conditioned.

4.4 Tones in Habitual Constructions

Like other GTM languages, tone marks lexical and grammatical distinctions in Sɛkpɛle. The authors of this paper are hesitant to accept the claim that Sɛkpɛle has a past and non-past subject pronoun. This is because the same form of the subject pronouns can be used in past and present events that continue to the reference time. Therefore, what appears to distinguish a past and non-past habitual meaning is a difference in tone. We suspect that a [+high] tone on a subject pronoun indicates a past habitual meaning, and a [-high] tone indicates a normal habitual meaning (18).

(18) a. **bàákpo** **kudu**
bà-á-kpo kúdú
3PL.NON-PST-HAB-pour shout
'They shout'

b. **nko nə** **te** **báákpo** **kudu**
ńkò nə́ tè bà-á-kpo kúdú
like that only 3PL.PST-HAB-pour shout really
'That is how they used to shout'

The [-high] tone in (18a) conveys a normal habitual meaning, whereas the [+high] tone incorporated into the subject pronoun in (18b) conveys a past habitual event. Even so, it appears that, except for the third person plural subject pronoun, other subject pronouns cannot be marked for the [+high] tone (19).

(19) a. wàákpe kutu əsuə mba lə
wà= á- kpé ə̀súə̀ m̀bá lə́ kútù
3SG.NOM= HAB-add salt LOC soup body
'He adds salt to soup'
(Delalorm, 2016, p. 327)

b. nko te wàákpe mba lə kutu əsuə…
ńkò tè wà= á- kpé m̀bá lə́ kútù ə̀súə̀…
like that only 3SG.NOM= HAB-add salt LOC soup body…
'That is how she adds salt to soup…'

c. *nko te wáákpe mba lə kutu əsuə…
ńkò tè wà= á- kpé m̀bá lə́ kútù ə̀súə̀…
like that only 3SG.NOM= HAB-add salt LOC soup body…
'That is how she adds salt to soup…'

Therefore, the tone of the subject pronoun remains a [-high] in 19a-c and conveys both past and normal habitual meaning. The ungrammaticality of 19c is due to the [+high] indicated on the subject pronoun. We leave it to further studies to confirm this observation.

These findings highlight the gradient interaction between stem vowels, prefix vowels, and subject pronouns. When the prefix undergoes assimilation with the first stem vowel, its ATR and height features may further spread to adjacent pronominal subjects, but only if the subject vowel differs in ATR and height features. This

shows that vowel harmony in Sɛkpɛle is domain-specific and regressive, primarily triggered by the first syllable of the stem, and can extend to morphosyntactic constituents, such as pronominal subjects, under specific phonological conditions.
Moreover, the presence of tone marking past habitual events suggests a phonologically mediated tense distinction, challenging previous claims of distinct past and non-past pronouns. This interpretation aligns with cross-linguistic evidence that tone can encode both aspectual and temporal distinctions (e.g., Dolphyne, 1988; Odoom & Adomako, 2021), thereby enriching our understanding of the interface between phonology and morphosyntax in Sɛkpɛle.

5.0 CONCLUSION

The paper agrees with Delalorm's finding that the morpheme *a-* is central to marking habituality in Sɛkpɛle. However, it reveals other allomorphic forms: *á-, e-,* and *ə-* triggered by the ATR and height value of the first syllable of the stem. Using the autosegmental phonology as the theoretical framework, the results show that stems with /e, a, o/ trigger [+ATR] harmony, stems with / ɛ, ɔ / trigger [-ATR] harmony and stems with / i, ə, u / trigger [+ATR, +high] harmony. The analysis also demonstrates that the habitual marker /á-/ co-occurs with verb stems ending in /e, a, o, ɛ, ɔ/, while /e/ collocates with stems ending in /u, i/, and /ə/ co-occur with verb stems ending with itself. The findings emphasise that habitual marking in Sɛkpɛle cannot be understood in isolation from the phonological system; rather, the interaction of ATR, height, and, in some instances, tonal features governs the surface forms of both the habitual marker and its associated pronominal subjects. These results contribute to the documentation of Sɛkpɛle and the broader knowledge of GTM/Kwa language morphophonology. Similarly, it highlights the interaction between phonology and morphosyntax by demonstrating that functional forms are sensitive to phonological environments in many African languages.

6.0 CONFLICTS OF INTEREST

The authors declare no conflicts of interest regarding the publication of this paper.

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List of Abbreviations

ATR	Advanced Tongue Root
+H	Plus high
-H	Minus high
SG	Singular
PL	Plural
NCL	Noun class marker
CM	Complement
PST	Past
NON-PST	Non-past
HAB	Habitual
LOC	Locative
NOM	Nominal

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