

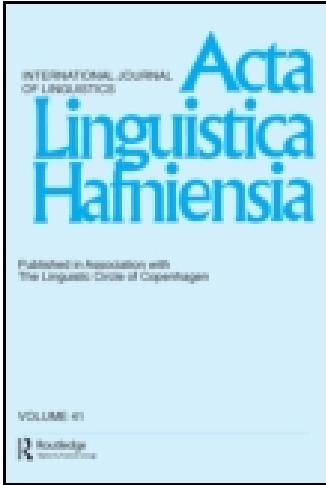
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Levina Nyameye Abunya<sup>a</sup> & Nana Aba Appiah Amfo<sup>a</sup>

<sup>a</sup> Department of Linguistics, University of Ghana

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## Grammaticalization in Kaakyi: From a temporal adverb to a future tense marker

Levina Nyameye Abunya\* and Nana Aba Appiah Amfo

*Department of Linguistics, University of Ghana*

This paper discusses the linguistic phenomenon of grammaticalization in relation to the development of the future tense marker *ké* in Kaakyi (Kwa, Niger Congo). Focusing on some characteristic features of grammaticalization such as metaphorical extension, phonetic reduction, morphosyntactic reduction and the fusion of elements, the paper examines the paths along which the future tense marker has developed. First, it shows the extension of the meaning of the time adverbial *̀̀ké* ‘tomorrow’, to the functional morpheme, *ké-*, expressing future time. Second, it demonstrates the loss in the morphological and syntactic properties of *̀̀ké* and a gain in some properties characteristic of its use as a functional morpheme. Third, two of Hopper’s (1991) principles of grammaticalization, divergence and de-categorization, are shown to be applicable in the development of the marker. Kaakyi appears to be the only Kwa language to have so far been identified as deriving its future tense marker from a temporal adverb.

**Keywords:** De-categorization; Divergence; Future marker; Grammaticalization; Kaakyi; Temporal marker

### 1. Introduction

This paper discusses the grammaticalization of the future tense marker in Kaakyi, a Guan language belonging to the Volta-Comoe branch of the Kwa language group spoken in Ghana. Cross-linguistic studies of the phenomenon of grammaticalization in a number of varied languages (see e.g., Heine and Reh 1984; Bybee, Perkins, and Pagliuca 1994; Heine and Kuteva 2004) reveal that future tense markers are usually derived from movement verbs, markers of obligation, desire and ability, and the verb ‘to be/become’. Additionally, all the above-mentioned authors mention a few languages in which future markers are derived from temporal adverbs. For instance, Bybee, Perkins, and Pagliuca (1994) cite four languages, out of 46 with lexical sources for their future markers, as deriving from temporal adverbs. We suggest that Kaakyi is one such language which exhibits this rather uncommon, yet attested and logical phenomenon, where the future marker has developed from a temporal adverb *̀̀ké* ‘tomorrow’.

Trying to account for the evolution of grammatical categories from lexical words in a language like Kaakyi with little or no historical documentation could be daunting. However, we are encouraged by Marchese’s (1986, 2) suggestion that under such

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\*Corresponding author. Email: [leviabu@yahoo.co.uk](mailto:leviabu@yahoo.co.uk)

circumstances “it is possible to begin with comparative synchronic data to reconstruct proto-structures and to infer what change or changes have taken place”. Thus, based on synchronic data available to us, and what we know of the development of future markers cross-linguistically, we hypothesize that the future marker ké in Kaakyi developed out of the temporal adverb ɔké through the process of grammaticalization. Focusing our attention on some characteristic features of grammaticalization such as metaphorical extension, phonetic reduction, morphosyntactic reduction and the fusion of elements, as well as a loss of autonomy, the paper examines the extent and paths along which the future tense marker has possibly developed. The paper also supports the view that a cognitive process is involved in grammaticalization.

The structure of this paper is as follows. Section 2 provides information on the Kaakyi language and our data sources. Section 3 discusses the future tense marker in Kaakyi. Section 4 provides a summary of grammaticalization theory, which is the theoretical framework adopted in this paper. Section 5 focuses on the development of the future tense markers from temporal adverbs in some other languages. Section 6 examines the development of the Kaakyi future tense marker. First, it will be shown that there is a metaphorical extension of the meaning of the time adverbial ɔké ‘tomorrow’, which is a lexical word, to a prefix, ɔké-, which expresses the notion of futurity. Second, it will be demonstrated that there is a loss in the morphological and syntactic properties of the lexical adverb ɔké and a gain in some properties characteristic of its use as a functional item. Third, two of Hopper’s (1991) principles of grammaticalization, divergence and de-categorization, will be shown to be applicable in the development of the future tense marker. Section 7 is the conclusion.

## 2. Kaakyi language and data sources

Kaakyi (also known as Krachi) is a Guan language spoken in the northern part of the Volta region and some eastern parts of the Brong Ahafo region of Ghana. It is considered (Adonae 2005) to have two major dialect groups, namely Le-ka Kaakyi and Oti-ka Kaakyi. Some researchers such as Dundaa (personal communication, 16th October, 2012) contend that the dialect distinction is not very effective since most people speak across dialects due to their peculiar history and issues relating to resettlement.

Kaakyi can be considered as one of the least studied languages in Ghana, and the few studies on this language remain largely unpublished. It therefore has not got a long literary tradition, which makes access to historical language data a virtual impossibility. The Ghana Institute of Linguistics, Literacy and Bible Translation (GILLBT) has made considerable attempts at preserving the language, through their efforts at translating the Bible into Kaakyi and describing aspects of the grammar of the language (Dundaa 2000, 2005; Dundaa and N-yaaba 2007). So far 92% of the New Testament has been drafted and 20% of that has been checked by their language consultant (Dundaa, personal communication, 16th October, 2012). Recent linguistic studies of aspects of the language include Korboe (2001, 2002), Adonae (2005), and Abunya (2010).

The data used in this paper are from both verbal and written sources. The verbal data was elicited from native speakers at Kete Krachi, one of the major Kaakyi-speaking towns. Spontaneous conversations on given topics were recorded and transcribed. Short stories and narrations also served as sources of data. Sentences involving the relevant feature being investigated were extracted from a Kaakyi primer. We also resorted to data from some of the largely unpublished studies mentioned above. GILLBT staff members in Kete Krachi provided assistance with data verification and interpretation, when needed. A few other language consultants, including a previous researcher, were also available for data verification and interpretation.

### 3. Kaakyi future tense marker

Osam (2008, 71) in discussing the future morpheme in Akan, suggests that its main function is to “indicate future time reference”. Additionally, it may code intentionality and prediction. Our view of the function of the future marker in Kaakyi is similar to what pertains in Akan. Our characterization of the future is based on Bybee, Perkins, and Pagliuca’s (1994, 244) assertion that the future is used to make “a prediction on the part of the speaker that the situation in the proposition, which refers to the event taking place after the moment of speech will hold”. They suggest that future senses include desire, willingness, intention and prediction. It is thus to be expected that the expression of intention and prediction is inextricably linked to the notion of future time, since an intended or predicted act is expected to happen sometime after it has been linguistically expressed.

The future tense in Kaakyi is morphologically marked by the high-toned prefix *ké-*. The marker has to agree with the vowels of the verb stems in terms of ATR<sup>1</sup> harmony. The use of the future marker *ké-/ké-* indicates that the event coded will occur after the time of speaking. Hence, functionally, it indicates future time reference as can be seen in (1).<sup>2</sup>

- (1) a. Alí            *ké-nètí*  
           2PL.SUB    FUT-walk  
           ‘‘We will walk.’’
- b. Ama *é-gyíré*    *fèè ǹ̀ỳ̀nk̀̀p̀̀n̄*    *ké-ỳ̀*        *mɛ n-ỳ̀*  
           Ama PST-say    that rain        FUT-fall    but NEG.PST-fall  
           ‘‘Ama said that it will rain, but it didn’t rain.’’

<sup>1</sup> Vowel harmony in Kaakyi is based on the tongue root harmony system. This system groups Kaakyi vowels into two different sets: Set A [+ATR]: (i, e, o, u) produced with an advanced tongue root, and Set B [-ATR]: (ɪ, ɛ, ɔ, ʊ) produced with a retracted tongue root.

<sup>2</sup> The abbreviations used in this paper are as follows: 1 = first person; 2 = second person; 3 = third person; ATR = Advanced Tongue Root; DET = Determiner; DIR = Directional; FUT = Future; INF = Infinitive; OBJ = Object; PL = Plural; POSS = Possessive; PRES = Present; PST = Past; REFL = Reflexive, REL = Relativizer; SG = Singular; SUBJ = Subject.

c. ń-ké-gyí            ágyíbi wú  
 1SG.SUBJ-FUT-eat food DET  
 “I will eat the food.”

d. Oyu wú ké-dēñ  
 tree DET fut-grow  
 “The tree will grow.”

(Abunya 2010, 85–86)

The examples in (1) illustrate the different senses communicated by the future tense marker; this includes intention (1a) and prediction (1b). In (1a) the speaker after considering what options he and the addressee had in relation to a trip they were about to make, decided that they should walk. The speaker in (1b) reports a prediction of rain which did not materialize. In (1c), the speaker had initially declined the offer to eat. He later changes his mind and indicates his intention to now eat the food. The utterance in (1d) was made to clear the doubts the addressee had expressed about the ability of the tree that was being planted to grow as expected.

The future tense marker may be used with a temporal adverb to indicate when precisely the event described by the verb will take place. Example (2) below depicts this:

- (2) a. Atrobea ké-yò Kumasi mpirini/nika/òké  
 Atrobea FUT-go Kumasi now/today/tomorrow  
 “Atrobea will go to Kumasi soon/today/tomorrow”.
- b. Atrobea ké-yò Kumasi mpasu/kenyesire ni  
 Atrobea FUT-go Kumasi afternoon/midnight DEM  
 “Atrobea will go to Kumasi this afternoon/midnight”.

It is possible to use *ké* in embedded clauses as in (3) below. In this example, Kofi’s utterance is situated in past time, however the event that he (Kofi) mentioned, is expected to take place after the time the present speaker reported Kofi’s utterance.

- (3) Kofi é-gyiré fèè ò-ké-bè            òké  
 Kofi PST-say that 3SG.SUBJ-FUT-come tomorrow  
 “Kofi said that he will come tomorrow.”

In section 6 of this paper, we examine the source of this future tense marker and how it has evolved. We hypothesize, following Abunya (2010), that the predecessor of the future tense marker in Kaakyi is the temporal adverb òké ‘tomorrow’; specifically that the future tense marker evolved, through a grammaticalization process, out of the temporal adverb. In the following sections, we provide support for this hypothesis.

#### 4. Grammaticalization

Grammaticalization (also termed grammaticization, grammatization) has received a lot of attention in the linguistic literature; it has been characterized in many different ways. Heine and Reh (1984, 15) define grammaticalization as “an evolution whereby linguistic units lose in semantic complexity, pragmatic significance, syntactic freedom, and phonetic substance”. Heine, Claudi, and Hünnemeyer (1991, 2) explain the phenomenon as one in which “a lexical unit or structure assumes a grammatical function, or where a grammatical unit assumes a more grammatical function”. Heine and Kuteva (2002, 2) see it as “the development from lexical to grammatical forms and from grammatical to even more grammatical forms”. Bybee, Perkins, and Pagliuca (1994) suggest that “grammaticalization theory begins with the observation that grammatical morphemes develop gradually out of lexical morphemes”. According to Bybee (2003, 145), during the process of grammaticalization,

nouns and verbs lose their categorical status and become prepositions, auxiliaries, and other grammatical forms. Free elements become more restricted and fuse with other elements.

Despite the numerous characterizations associated with the notion of grammaticalization, certain common elements run through them which are worth noting. First of all, it is considered as both a synchronic and diachronic process. From the synchronic point of view, grammaticalization is seen as a syntactic and discourse pragmatic phenomenon (Hopper and Traugott 2003). As a diachronic process, grammaticalization interrogates the sources of functional words and forms and the paths along which they might have developed. Grammaticalization is seen as a “cline”, a natural “pathway” along which forms evolve. Secondly, the grammaticalization process is considered to be unidirectional (Traugott 2001; Hopper and Traugott 2003) or in Haspelmath’s (1999) term, “irreversible”. By unidirectional, Hopper and Traugott mean changes from a more grammaticalized item to a less grammaticalized item or from a grammaticalized item to a lexical item are not possible. It is imperative to state that though this idea is firmly established, a few “legitimate” counter-examples have been raised by some linguists (see Traugott 2001). Thirdly, it is treated as a phonological, morphological, syntactic, semantic (Heine and Reh 1984; Hopper and Traugott 2003), and cognitive process (Heine, Claudi, and Hünnemeyer 1991; Bybee 2003). The next section discusses some of the cognitive processes manifest in grammaticalization.

##### 4.1. Cognitive processes in grammaticalization

It has been cogently argued by some linguists that grammaticalization involves cognitive processes (Heine, Claudi, and Hünnemeyer 1991; Bybee 2003). Heine, Claudi, and Hünnemeyer (1991, 27) claim that “grammaticalization does not only offer an important parameter for understanding linguistic behaviour but that grammaticalization itself is motivated by extralinguistic factors, above all

cognition". Bybee (2003, 146) explains that "many of the very basic mechanisms that constitute the process of grammaticalization are cognitive processes that are not necessarily restricted to language". This notion that cognitive processes are involved in grammaticalization emerged as a result of finding out the motivation that underpins semantic change/bleaching or "desemanticization" in grammaticalization.

According to this view, "grammaticalization can be interpreted as the result of a process that has problem solving as its main goal whereby one object is expressed in terms of another" (Heine, Claudi, and Hünemeyer 1991, 29). According to Heine et al., three aspects are involved in the problem-solving process. The first is the "original state" where there is a grammatical concept for which no appropriate linguistic expression exists. The second, the "goal state" is reached when an expression is found. The third is the "rules". The rule leading from the original state to the goal state would be to draw on the relevant pool of existing terms for the expression of that grammatical concept. At this stage, "creativity" is employed to establish a conceptual link between the domains involved: the domain of concrete, typically lexical concepts (i.e., the source domain) and that of more abstract, grammatical concepts (the target domain). Bybee (2003, 154) states that "lexical meaning is specific and concrete... grammatical meaning, on the other hand, is typically abstract, referring to large, abstract domains...".

Creativity is "explained as the ability to bring something new into existence by conceptualizing abstract domains of cognition in terms of concrete domains" (Heine, Claudi, and Hünemeyer 1991, 31). For example, the domain of space is conceptualized in terms of physical objects, the domain of time in terms of spatial concepts, and the domain of logical relations in terms of temporal concepts. This kind of creativity is claimed to be unidirectional, leading from concrete to abstract concepts and from lexical to grammatical expressions. The source concepts (expressed by lexical words) are the most elementary human experiences; they are typically derived from the physical state, behaviour, or immediate environment of man and are frequently referred to in human thought and communication. Heine, Claudi, and Hünemeyer (1991, 34) argue that the lexical items which denote source concepts are eligible for the process of grammaticalization since they provide "concrete" reference points for human orientation that evoke associations and are therefore exploited to understand "less concrete concepts".

In this cognitive approach, it has been pointed out

that metaphorical extension is responsible for the development from concrete lexical referents to abstract grammatical markers such as complementizers, in that certain semantic fields such as definiteness and existence are associated cognitively with truth and direction with futurity, possibility, or purpose. (Heine, Claudi, and Hünemeyer 1991, 46)

By metaphorical extensions, the concrete meaning of an expression is applied to a more abstract context. Thus concrete entities are recruited in order to express more

“abstract” functions through metaphorical transfer. For instance, parts of the body are recruited as source concepts for the expression of grammatical concepts because of their relative location: “back” or “buttocks” is used for the space behind. Source concepts may also constitute some of the most basic human activities, such as “to do/make”, or movements such as “to go or come”. Heine, Claudi, and Hünnemeyer (1991) have suggested that the process of grammaticalization of verbs to become auxiliaries does not represent a process of “semantic bleaching”, “depletion”, or “desemanticization” (as has been suggested by various authors), but instead it is a process of metaphorical abstraction.

It is based on this metaphoric assumption that the grammaticalization of *ɔ̀ké* is examined in section 6.

### 5. The grammaticalization of future tense markers in other languages

It is well demonstrated that a number of future tense markers in the languages of the world derive from lexical sources. Studies which attest to this phenomenon cross-linguistically include Bybee, Perkins, and Pagliuca (1994), Heine and Reh (1984) and Marchese (1986). Studies in this regard focusing on Ghanaian languages include Saah (2003), Osam (2008) on Akan; Ofori (2001) on Larteh.<sup>3</sup>

Bybee et al. (1994) note that 46 out of their 119 primary futures have lexical sources. Twenty future forms in their database come from movement verbs, 13 from markers of obligation, desire and ability, 6 from “other verbs” such as “to need”, “to owe” and “to do”, and four from temporal adverbs including “then”, “just now” and “soon”. This confirms Heine and Reh’s (1984) assertion that future markers derive mostly from motion verbs and volitive or desiderative verbs.

It is clear that temporal adverbs are not one of the popular historical sources of future tense markers. Indeed, Heine and Reh (1984, 132) suggest that they “form a secondary source of future markers”. However, it is worth mentioning a few languages where this pattern has been noted. Bybee et al. (1994) mention that Chepang *dhan* ‘just now’ combines with the future suffix to express immediate future. Also, the Karok adverb *ćimi* co-occurs with the future suffix *avis* to provide an immediate future or intention reading. Thus, they note that these adverbs on their own do not express futurity. It is not clear to Bybee et al. whether sentences involving the Trukese *qaaq* ‘then’, ‘thereafter’ ought to be analysed as essentially tenseless. The Tok Pisin adverbial *bai* (from by and by) occurs clause initially. However, in pre-verbal position, it is used to express a range of meanings associated with the future, such as intention and prediction. Heine and Reh mention the Sango adverb *fadé* ‘quickly’ and Bari *dé* ‘then, afterwards’ as examples of adverbs which are used as future markers when they occur in the requisite positions. Note that these forms are used to communicate futurity without the support of other future markers.

<sup>3</sup>Heine and Reh (1984) mention the development of the Ewe future marker from the verb *vá* ‘to come’.

Marchese (1986) and Heine and Kuteva (2002) cite a few languages which, like Kaakyi, derive future markers from adverbs meaning “tomorrow”. These are listed in Table 1.

We notice from Table 1 that the future markers are phonologically reduced forms of the respective temporal adverbs meaning ‘tomorrow’. Marchese observes that there is no consistent pattern in the phonological reduction involving the future markers; however, in many cases (Nego, Cedepo, Tepo and to some extent Bakwé), it is the final syllable that remains. The three features that Marchese (1986, 258) associates with these future grams are as follows:

- reduced adverbs occur in exactly the same position traditional markers do.
- adverb-related tense markers often may not occur where temporal adverbs can.
- time adverbs and their related reduced forms co-occur.

In section 6, we consider the facts that relate to the suggested grammaticalization of the Kaakyi temporal adverb òké ‘tomorrow’ to a future marker.

## 6. The grammaticalization of òké in Kaakyi

In this section, we examine the future tense marker in Kaakyi and consider its likely evolution from the temporal adverb ‘tomorrow’. First, we are struck by the phonological similarity between the two forms ké ‘future marker’ and òké ‘tomorrow’. Like many of the attested cases that we saw in section 5, the final syllable of òké ‘tomorrow’ is retained as the future marker. As pertains in many languages, the preferred position for the occurrence of the adverb òké is sentence initially (4a) or finally (4b).

(4) a. òké fu ké-yò ndɔ  
 tomorrow 2SG FUT-go farm  
 “Tomorrow you will go to the farm”.

b. fu ké-yò ndɔ òké  
 2SG FUT-go farm tomorrow  
 “You will go to the farm tomorrow”

Table 1. Future markers derived from the temporal adverb “tomorrow”

Language	“tomorrow”	Future marker
Nego	keele	le
Cedepo	kà	kà
Tepo	ɲàɲà	ɲà
Bakwé	sremagàpek	pe
Mandinka	sina	si

As a verbal marker, the reduced form (see section 6.2) occurs as a verbal prefix. In such instances, the gram does not mean ‘tomorrow’, like its fuller adverbial form. Instead, it suggests future time reference as well as prediction and intention.

- (5) a. ðké           gyi kake be           kuufoo  
 tomorrow be day 3PL.SUBJ give birth  
 “Tomorrow is your birthday.”
- b. Ababio kē-kpè  
 Ababio FUT-sweep  
 “Ababio will sweep.”
- c. Ababio kē-kpè,       ðké  
 Ababio FUT-sweep, tomorrow  
 “Ababio will sweep tomorrow.”

Whereas in (5a) the element ðké exhibits a fully lexical word (a temporal adverb) meaning ‘tomorrow’, in (5b and 5c) kē (ostensively derived from ðké) is interpreted as a future tense marker. Our argument is that this kind of example illustrates a case of grammaticalization whereby a lexical word, the temporal adverb ‘tomorrow’, assumes a grammatical meaning expressing the notion of futurity, a process that is not very common yet is cross-linguistically attested (Marchese 1986; Comrie 1985; Heine and Kuteva 2002). We have seen in the previous section instances where an adverb, and specifically one meaning ‘tomorrow’, has grammaticalized into a future marker, with both forms co-occurring in the language. All the three features that Marchese associated with the future grams derived from temporal adverbs, in the languages that she studied, apply to the Kaakyi situation as well, as we will see demonstrated in the discussion that follows.

In the subsections below, we discuss the suggested pathways along which the future tense marker has developed by taking note of some characteristic features of grammaticalization associated with it, such as metaphorical extension and phonetic/morphosyntactic reduction. Finally, we see how two of Hopper’s (1991) principles of grammaticalization apply to this gram.

### 6.1. *Metaphorical extension*

One characteristic feature of grammaticalization, especially in its early stages of development, is a shift in the meaning of the gram. In this section we argue that the shift in meaning in the grammaticalization process of ðké is metaphorically grounded.

In (5a) the lexical adverb ðké is defined as the day after the time of speech. Here, the speaker is precise in her utterance in that the referent’s birthday is no other day than the day after the said utterance has been made. In (5b), the

meaning conveyed by *ké* is construed to be a metaphorical extension of the meaning of *ɔké*; the action to be performed by the referent (Ababio) will take place after the moment of speech and this may include the day after the day of speech or several days, weeks or months after the day of speech.

Kaakyi speakers are able to create this new grammatical function due to a metaphorical extension.<sup>4</sup> By metaphorical extension, speakers conceptualize the abstractness of “an indefinite future” in terms of a less abstract concept. The temporal adverb *ɔké* is less abstract and definite, and therefore, is the source concept. It is known to speakers because it forms part of their experiential basis of the world. Their experience with the temporal adverb *ɔké* is embodied in their cognition, and they are able to relate this experience to the general concept of future time.

Based on the above explanation, we can postulate that the inference of the futurity notion of *ké-* in (5b) and (5c) is derived metaphorically from the inherent semantic substance in the temporal adverb ‘tomorrow’ and this could serve as an explanation for the historical development of the Kaakyi future tense marker. We can therefore assume, diachronically, that a sentence like (6) preceded (5b).

- (6) Ababio kpè    ɔké  
 Ababio sweep tomorrow  
 “Ababio will sweep.”

The assumed new meaning of *ɔké* as a future marker allows it to occur in the pre-verbal position, the expected syntactic position of such tense-aspect markers. With the process of phonetic reduction, the form *ɔké* is reduced to a single syllable; the final syllable remains and is affixed to the verb stem, as we saw above in (1).

Having argued that the use of (*ɔ*)*ké* as a future marker is metaphorically grounded and therefore an eligible candidate for grammaticalization we can now examine its morphosyntactic changes.

## 6.2. *Phonetic and morphosyntactic reduction*

Once the grammaticalization process starts and the meaning of the temporal adverb *ɔké* ‘tomorrow’ has been extended to mean futurity, *ɔké* undergoes some phonetic and morphosyntactic changes typical of Kaakyi tense markers.<sup>5</sup> There is first a loss in the morphological structure of the lexical adverb *ɔké*. Consider the following:

<sup>4</sup> An alternative view, suggested by an anonymous reviewer, is that speakers (and interlocutors) are able to derive the future meaning of *ké* from *ɔké*, ‘tomorrow’ through the process of semantic broadening.

<sup>5</sup> Kaakyi tense markers are typically monosyllabic, they are prefixed to the verb and are subject to vowel harmony.

- (7) a. ðké           gyi kake be           kuufoo (=5a.)  
 tomorrow be day 3PL.SUBJ give birth  
 “Tomorrow is your birthday.”
- b. àlí-ké-yɔ           obuase  
 1pl.subj.fut-go house  
 “We will go home.”

Structurally, *ɔké* in (7a) is a disyllabic word but has been reduced to *ké-*, a monosyllabic morpheme, in its grammaticalized form in (7b). Once *ðké* assumes a functional meaning it is structurally reduced to a monosyllable, in conformity with most verbal prefixes in the language. As a tense marker, *ké* cannot meaningfully stand on its own; it is only meaningful when it is attached to a lexical verb like *kpè* ‘sweep’ (5b) or *yɔ* ‘go’ (7b). So syntactically, *ké* is restricted in its occurrence in that it cannot occur sentence initially, as seen in (8a), nor finally, as seen in (8b); it must necessarily be prefixed to a verb in order to realise its grammatical function.

- (8) a. \*ké Ababio kpè  
 FUT Ababio sweep  
 “Ababio will sweep.”
- b. \*Ababio kpè-ké  
 Ababio sweep-FUT  
 “Ababio will sweep.”

Heine and Kuteva (2002, 2) point out that “. . . in the same way that linguistic items undergoing grammaticalization lose in semantic, morphosyntactic and phonetic substance, they also gain in properties characteristic of their uses in new contexts”. In (9) below, we note that *ké-* has not only lost its lexical properties; it has, on the other hand, gained some properties characteristic of its use as a functional item. It can be observed in (9b) as compared to (9a) that *ké-* is subject to the vowel harmony rule in the language. Its vowel harmonizes with the vowels in the verb stem it is prefixed to, with regard to its ATR status. *ké-*, therefore, has *ké-* as its allomorph. Its subjection to the vowel harmony rule points to its dependence on the main verb for its existence; an indication of its entrenched grammatical function in Kaakyi.

- (9) a. Ama kɛ-bà-sɔɔ           kugyo  
 Ama FUT-come-buy yam  
 “Ama will come to buy yam.”
- b. Ama ké-nùù           nkyu  
 Ama FUT-drink water  
 “Ama will drink water”.

### 6.3. Divergence

Two of Hopper's principles of grammaticalization, divergence and decategorization, are found to be applicable to the gram *ké*. The principle of Divergence refers to the fact that "when a lexical form undergoes grammaticalization for example to an auxiliary, clitic or affix, the original form may remain as an autonomous lexical element" (Hopper 1991, 24). One can notice in (3a) and (3b) that the grammaticalization of *òké* 'tomorrow' to a future tense marker has resulted in the existence of a pair of forms, with different functions. The original form *òké* still remains as a lexical item as shown in utterances like those cited in (4b) and (5c).

### 6.4. Decategorization

The principle of de-categorization explains that "forms undergoing grammaticalization tend to lose or neutralize the morphological markers and syntactic privileges characteristic of the full categories of Noun and Verb, and to assume attributes characteristic of secondary categories such as Adjectives, Participle, Preposition, etc." (Hopper 1991, 22). It is also observable from the discussions above that the form *òké* which has undergone grammaticalization has lost part of its morphological structure. Its disyllabic form has been reduced to a monosyllable *ké-*. Again, *ké* has lost part of its original syntactic privileges. It is no longer a free item with an independent meaning, which was characteristic of the lexical category that *òké* 'tomorrow' belongs to. It is now a prefix and must be attached to a verb for its meaning to be realised.

## 7. Conclusion

The grammaticalization process which results in the creation of the Kaakyi future tense marker out of the temporal adverb *òké* shows a clear instance of grammaticalization as seen through some of its characteristics features such as metaphorical extension, phonetic and morphosyntactic reduction, divergence and decategorization.

It is worth noting that the analysis of the time adverbial *òké* 'tomorrow' as the source for the future tense marker is another attestation of grammatical tense marking derived from lexical items that express time location, and it fits into the cross-linguistic evidence available. The paper has shown that the kind of grammaticalization Kaakyi exhibits is unusual compared to what pertains in other Kwa languages. Even though it has been attested in a few other West African languages, particularly Kru languages (for instance, Noyo, Cedepo, Tepo, Bakwé), that temporal adverbs and particularly 'tomorrow' could be the source of the future tense marker, Kaakyi appears to be the only Kwa language so far to have been identified as having such a feature.

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### Notes on contributors

Levina Nyameye Abunya holds an MPhil in Linguistics from the University of Ghana. She is currently a PhD student in Linguistics at the same institution. Her research interests include grammaticalization, serial verb constructions and the morpho-syntax of Guan languages.

Nana Aba Appiah Amfo is Associate Professor of linguistics at the University of Ghana. She obtained her PhD from the Norwegian University of Science and Technology (NTNU). Her research interests include grammaticalization, information structure, the communicative role of function words, and language use in specific domains such as politics and medicine.

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