

## THE PERFECT IN GÃ

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### **Abstract**

This paper investigates the meaning and distribution of the perfect in Gã (Niger-Congo, Kwa). Data from natural speech and elicitation reveals that in addition to uses of the perfect that have been established cross-linguistically, Gã makes use of the perfect for the predication of qualities (perfect of quality), for overtly signalling a change of state (inchoative perfect) and for marking iterative, habitual or predictable events (sequential perfect). A polysemous view of the perfect is advanced, and the semantic element of relevance is proposed as constituting the semantic core of the perfect. The paper also shows that the Gã perfect may be in the nascent stages of grammaticalization to a perfective or past tense, as it is now possible to use the perfect with hodiernal and prehodiernal temporal adverbs. The paper's significance lies in its documentation of an ongoing grammaticalization process that is uncommon in Niger-Congo and a novel use of the perfect in the sequential perfect, which has not been attested cross-linguistically.

**Keywords:** perfect, Gã, grammaticalization, past tense, aspect

### **1. Introduction**

In this paper, I examine the function and distribution of the perfect in Gã, a Niger-Congo (Kwa) language spoken by about 1 million people in southwestern Ghana, around the capital – Accra. This work focuses only on the present perfect, and aims to situate this perfect in the general typological framework of the perfect as discussed in Dahl (1985, 2000), Comrie (1976) and others. An important finding of the work is that Gã appears to be in the process of developing a hodiernal and prehodiernal perfective use of the perfect, where the present perfect can be used with events marked by hodiernal ('today past') and prehodiernal time

adverbials. This could be an indication of the nascent stages of a well-documented grammaticalization process whereby present perfects come to be used as perfectives (Bybee et al 1994, Schwenter and Cacoullos 2008, Squartini and Bertinetto 2000).

This study also uncovers a number of interesting uses of the perfect in the syntax of Gã. I propose a polysemous approach to these meanings which have at their core the semantic components of either ‘current relevance’ or ‘change of state/event’ or both, and I propose that both semantic values are unified by the notion of relevance. I show that Gã is one of a few languages that heavily employ the perfect (marked by the prefix **é-**) for the predication of qualities or properties. An example of this use is given in (1). A second important use of the perfect is aspectual, that is, to indicate a change of state. Although change of state has been recognized cross-linguistically as an implied component of the meaning of the perfect, especially with telic verbs (Mittwoch 2008, Ritz 2012:36), its manifestation in Gã stands out because when it occurs with a particular group of property verbs, it explicitly encodes a change of state, as in (2).

- (1) **Wó!nú = !é é-dò<sup>1</sup>**  
soup=DEF PRF-become.hot  
‘The soup is hot.’

- (2) **Òkó é-kè**  
Okó PRF-be.tall  
‘Okó has become tall.’

Finally, there is a third unusual use of the perfect – an aspectual use – which I term the sequential perfect. Unlike the typical perfect, which links a present state to a past situation, the sequential perfect is concerned with pluractional (iterative, habitual) or predictable events. An example is given in (3).

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<sup>1</sup> Abbreviations in this work, where applicable, follow the guidelines laid out in the Leipzig Glossing Rules: 1-first person, 2-second person, 3-third person, ASSOC-associative, COMP-complementizer, DEF-definite, FUT-future NOM-nominalizer, HAB-habitual, IMP-imperative, IMPERS-imperonal, INDEF-indefinite, INGR-ingressive, INTJ-interjection, ITIV-itive, NEG-negative, OBJ-object, PRF-perfect, PERT-pertensive, PL-plural, PRED-predicative, PROG-progressive, PROX-proximal, PRT-particle, REL-relativizer, SG-singular, SBJV-subjunctive, TOP-topic, VENT-ventive. Diacritics: [´]-high tone; [˘]-low tone; [ˆ]-falling tone; [!]-tone on following syllable is downstepped

- (3) **Ké!jí mǝ-kò mǝ-fò gbè mlǝ nǝ è-kwé-éé**  
 if person-INDEF PROG-cut road inside and 3SG-look-NEG  
**è-hèwǝṅ jògbǝṅ pé tǝtǝtǝ é-tswà lè**  
 3SG-surroundings well only motorbike PRF-hit 3SG.OBJ  
 ‘If someone is crossing the road and s/he is not careful, a motorbike will hit  
 him/her.’ (Lit: ‘...a motorbike has hit him/her’)  
 (Quarcoo 2013:42)

Data for this paper comprises natural data collected from 2011 to 2015 as part of a small corpus of spoken Gã<sup>2</sup>, as well as elicitation sessions with five native speakers (ranging in age from 25 years to 65 years) and my own native speaker intuitions. The spoken data comprised genres such as storytelling, procedural narratives, sermons and casual conversations.

The paper is organized as follows. In Section 2.0 I discuss some of the pertinent issues and debates associated with the perfect, especially the present perfect. In Section 3.0, I present some facts about the phonology, morphology and syntax of Gã, in order to aid understanding of the data. The different functions of the perfect are investigated in Section 4, followed by a proposal to view the perfect polysemously in Section 5. I conclude in Section 6.

## 2. The perfect in a typological perspective

The literature on the present perfect is rife with many debates concerning, among others, what exactly qualifies a form to be classified as perfect, the various meanings or uses that a perfect may have and also how a form loses the right to be called a perfect. In this section, I will survey some of those debates, with a view to informing how best to approach the analysis of the Gã perfect.

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<sup>2</sup> Examples from the corpus of spoken Gã are indicated with abbreviations denoting the name of the recording. These are [CH] – a sermon by a priest, [DT]-a phone conversation between two women, [YM] – a procedural narrative on the *Homowo* and twin festival, [OYO] – a different procedural narrative on *Homowo* and twin festival, [FS] – frog story. Examples not marked by an abbreviation are elicited or constructed.

## 2.1 Identifying the perfect

Reichenbach (1947) proposed a characterization of the perfect that has proven popular because it allows for easy comparison with other temporal and aspectual categories, especially the past tense and the past and future perfects. Reichenbach establishes a reference time (r), a speech time (s) and an event time (t) on a timeline. The present perfect is used when the speech and reference time coincide and are posterior to the event time. By comparison, for the past tense, the event time and reference time coincide, and these are anterior to the speech time. These are illustrated in Figures 1 and 2 below.

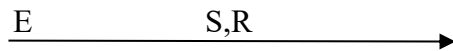


Figure 1: Present Perfect

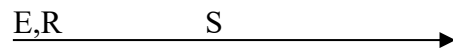


Figure 2: Past Tense

The conflation of speech and reference time in the present perfect captures a crucial component of its meaning, which is that although the event occurs in the past it is somehow related to the present. As Comrie (1976:52) puts it, “the perfect indicates the continuing present relevance of a past situation”, a feature that is also termed current relevance. Using Comrie’s example, when someone utters (4), the implication is that this loss has some impact on the situational context. Perhaps the addressee expected the speaker to cut open a box and the speaker by uttering this sentence intimates that he or she cannot.

(4) I have lost my penknife. (Comrie 1976:52)

Portner (2003:499) calls such perfects ‘resultative perfects’ and claims that with these perfects the present state provides some evidence of the past event via a causal relation. Therefore, in the *penknife* example, the past event of losing the penknife is evidenced in the fact that the speaker cannot open the box at the time of utterance. This view of current relevance is shared by Dahl and Hedin (2000) who note that use of the perfect to mark an event shows that the event has some repercussions for discourse participants.

Even when the current relevance of the perfect sentence is difficult to decipher, Portner (2003:502) maintains that its relevance can be arrived at when we assume that every perfect sentence contains a presupposition that it is an answer to an implicit question – a topic – in the discourse. The perfect sentence is relevant because it provides some information that is implicitly sought by the discourse. Nishiyama and Koenig (2006:271) provide some counter-examples that call Portner’s claims into question. They observe that interrogative sentences with verbs in the perfect are often used as conversation openers, to initiate new topics (e.g. *Have you done a lot of camping recently?*). There is therefore no prior discourse topic or question to which the perfect sentence will be a response to. Nevertheless, current relevance is viewed as the defining characteristic of the perfect, as captured in the following statement by Lindstedt (2000:368) that “[a] CR perfect is a perfect in its most central, prototypical meaning.”

Following from the current relevance semantics of the perfect, there is one syntactic constraint that affects perfects in many languages, and this is the inability to be modified by a definite past temporal adverbial. In Standard American English for example, the following is ungrammatical:

(5) \*The children have played yesterday.

The exception is that definite adverbials can be used when the event in the past occupies a period that ends at the time of speech. Hence, (6) is perfectly grammatical.

(6) The children have played today.

Ritz and Engel (2008:136) and Dahl and Hedin (2000:395) account for this by noting that the present perfect is focused on the present time, i.e. speech time rather than event time. It is therefore pragmatically odd to specify a time in the past as this overshadows the focus on the present. As observed by Portner (2003:493) this constraint appears to be pragmatically motivated, as it is perfectly possible to use the present perfect to predicate an event that occurred yesterday as long as one does not mention *yesterday* in the sentence.

Importantly, not all languages exhibit this adverbial restriction. Even for English, some dialects such as Australian English do allow past time specifications with the present perfect (Ritz 2012, Ritz and Engel 2008). Swedish, Danish and Bulgarian also permit modification of a present perfect with the adverb *yesterday* (Dahl 1985:137-138). However, several writers (Bybee et al 1994, Lindstedt 2000, Dahl 2000) have observed that when

languages relax the current relevance requirement of the perfect and accept definite past time adverbials, it is a sign of ongoing grammaticalization of the perfect into a perfective or past tense. This process has occurred to completion in several languages and language families, including many Germanic and Slavic languages (Abraham 2004). In the Romance languages, this diachronic process has been referred to as “aoristic drift” (Squartini & Bertinetto, 2000:404). Discourse-wise, such a form is then capable of being used in narratives, to foreground events and move the storyline forward. At this point it is no longer a perfect. A true present perfect is detached from past situations and is therefore not employed for foregrounded events in sequenced narratives (Schwenter and Cacoullos 2008:4). Ritz (2012) identifies the inability of the perfect to be used for talking about past events as a significant negative criterion for perfect identification.

To recap, a perfect connotes an inherent notion of change (Ritz 2012). It cannot be used to talk about past events, the effects of the event marked perfect are visible or otherwise pertinent to the current discourse and it cannot be modified by a definite past time adverbial. In the next section, we turn our attention to different uses of the perfect cross-linguistically.

## 2.2 Uses of the perfect

Comrie’s (1976) classification of the perfect into four ‘types’ has endured over the decades as it captures the various manifestations of the perfect cross-linguistically. He identifies a perfect of result (resultative perfect, stative perfect), experiential perfect (existential perfect, indefinite perfect), perfect of persistent situation and perfect of recent past (‘hot news’ perfect). With the perfect of result, a present state is viewed as the result of a past event or action (Comrie, 1976:56). So for example, (7a) below implies John is still here, while (7b) does not necessarily have the same implication (Comrie 1976:56). This use of the perfect exemplifies the quintessential current relevance meaning discussed in the previous section.

- (7) a. John has arrived.  
b. John arrived.

One grammatical category that often features in discussions on the perfect is the resultative. This is because perfects are postulated to have arisen out of resultatives in many languages (Bybee et al 1994, Comrie 1976) and the two are semantically very similar. Nedjalkov and Jaxontov (1988:6) define resultatives as verb forms that express a state resulting from a previous event. Such a state is tangible and verifiable with the senses. They make a

distinction between resultatives and another related concept – statives (Maslov’s statal perfects); with statives/statal perfects, there is no implication of a preceding event which gives rise to the state. By this criterion, *The mug is broken* would be a resultative because for the mug to break there must have been a preceding event (falling, throwing it to the ground etc.). On the other hand, *The boy is asleep* would be stative because there is no obvious or intuitive precipitating event resulting in the boy’s falling asleep. Such a nuanced distinction is difficult to maintain, as there will be several instances where a categorical classification would be near-impossible. Consequently, Nedjalkov and Jaxontov (1988) jettison this strict divide and resolve to refer to both situation types as resultatives. They therefore only recognize perfects and resultatives as distinct categories.

As noted by Ritz (2012) and others, because resultatives naturally encode a change of state, they tend to involve mainly telic verbs. However, in their development from resultative to perfect, the current result component is generalized to current relevance, allowing for the use of atelic verbs (Lindstedt 2000:368). Dahl (2000:134) observes that while resultatives are more focused on resulting states, perfects are more focused on the event. Another crucial difference between the two is syntactic: while resultatives can be modified by the adverb *still*, perfects cannot (Lindstedt 2000, Dahl 2000, Maslov 1988, Ritz 2012). So whereas (8a) is possible in English, (8b) is not.

- (8) a. The rat is still dead.  
b. The rat has still died.

There is clearly a lot of overlap between resultatives, statives and perfects as well as subtle semantic and syntactic differences. It is no surprise then, that in some languages, a perfect form may be used to express two or three of these grammatical categories, as is the case in Fante, Swahili, Greek and Kpelle, where stative present constructions in English are translated using perfect forms (Comrie 1986:57).

The second type of perfect mentioned by Comrie (1976) is the experiential perfect. This perfect denotes that an action has occurred at least once prior to the time of speech e.g. *Jane has been to London*. The perfect of persistent situation indicates that a situation that was initiated in the past continues into the present e.g. *We have lived here for a long time*. Finally, Comrie’s perfect of recent past or ‘hot news perfect’ (which Kiparsky 2002 subsumes under resultative perfects) is used when the past situation is relatively recent. It is difficult to cipher the current relevance in such uses of the perfect except for the recency

of the event described. It is this ‘hot news perfect’ that was identified by Nishiyama and Koenig (2006) as well-suited for conversation starters or to signal a change in topic.

I shall now turn to the facts of the perfect as they pertain to Gã, but before that a quick overview of Gã verb syntax and morpho-phonology is warranted.

### 3. Some notes on Gã verb syntax and morpho-phonology

Gã is an SVO language with obligatory subjects. The vast majority of predicates are verbs, with a few mostly deictic predicative particles. Several properties or qualities that in other languages are expressed by adjectives are expressed by verbs in Gã. Verbs can be inflected for future tense, progressive, iterative, perfect and habitual aspects, and subjunctive and imperative moods. There is no past tense. When the verb is unmarked it often has a default past time interpretation, but depending on the type of verb, it may have a progressive or habitual interpretation instead. Serial verbs are common and for the most part require concordant marking of inflectional categories on all verbs in the series. Inherent complement verbs (ICVs) are another common predicate type. These are bipartite verbs made up of a verb and an obligatory nominal or postpositional complement.

Gã has two phonemic tones – High (´) and Low (`) and a phonetic Downstepped High tone, indicated by an exclamation mark (!) before the syllable bearing the Downstepped High tone. Tone is independent of the syllable it occurs on, and this leads to situations where a verbal category is coded by a tone alone when the segments of the relevant morpheme are deleted or fused with other morphemes. This fact is particularly germane to this paper because the perfect morpheme é- undergoes such a process. When the subject of a verb marked with the perfect is a pronoun, the perfect prefix gets deleted and its high tone is borne by the last syllable of the pronominal subject. Example (9a) shows the realisation of the perfect prefix when its subject is a full noun phrase, while (9b), (9d) and (9e) show the perfect with first singular, second singular and third plural pronoun subjects respectively. In these examples, the perfect is marked only by the high tone on the subject, which is the high tone that remains after the segment of é- is deleted. (9d') – (9e') show the same proposition but with unmarked verbs. These are given a past interpretation. Note that the tone on the last syllables of these subject pronouns in citation form is low.

- (9) a.      **Ákú é-bà**  
          Aku    PRF-come  
          ‘Aku has come.’



- b. **ǐ = bà**  
1SG.PRF=come  
'I have come.'
- c. **\*ǐ = é-bà**  
1SG=PRF-come
- d. **Ó = bà**  
2SG.PRF=ba  
'You have come.'
- d.' **Ò = bà**  
2PL=come  
'You came.'
- e. **Àmǐ = bà**  
3PL.PRF=come  
'They have come.'
- e.' **Àmè = bà**  
3PL=come  
'They came.'

The progressive and subjunctive markers undergo a similar phonological process but these will not be explicated further for brevity's sake. It should be mentioned that tones are susceptible to change based on the presence of neighbouring tones, and that fusion and deletion of segments without deletion of tone is a common feature of Gã.

#### 4. Uses of the perfect in Gã

Five uses of the perfect have been identified in Gã, three of which coincide with those identified by Comrie and two that are not in Comrie's classification, although one would most likely have been subsumed under the perfect of result. These uses are:

- Perfect of result
- Perfect of quality
- Perfect of persistent situation
- Experiential perfect
- Sequential perfect

#### 4.1 Perfect of result

This perfect expresses the present state or present result of a past event. It thus demonstrates the current relevance or present relevance meaning characteristic of the category. As noted by Dahl and Hedin (2000:391), current relevance is a graded concept. The current relevance of a situation may be the palpable resultant effects of an action or change, or it could be the impact that a situation may have on participants in the discourse in terms of any consequential actions needed to be taken. In Gã, no perfect exhibits this current relevance sense more vividly than a subset of the perfect of result that I term the *change-of-state perfect/inchoative perfect*. This is the use of the perfect with certain property-denoting verbs to explicitly express a change from one state to another, similar to the use of inchoative aspectual markers in the languages that have them. Examples of verbs which encode inchoative aspectual meaning when marked for perfect are **wà** ‘be hard’, **kè** ‘be tall’, **lèê** ‘be broad’, **ɲɔ̃ɔ̃** ‘be sweet’.

- (10) **Blòdó = !é é-wà**  
 bread=DEF PRF-be\_hard  
 ‘The bread has become hard.’
- (11) **Gbé!ké = !é é-kè wàà**  
 child=DEF PRF-be\_tall very\_much  
 ‘The child has become very tall.’
- (12) **Àtsòmó = !ó é-ɲɔ̃ɔ̃ tsó**  
 chips=DEF PRF-be\_sweet too\_much  
 ‘The chips have become too sweet.’

The sentences in (10) to (12) all communicate that the state predicated by the verb did not exist in the past – that in fact the opposite state was what obtained (the bread was not hard,

the child was not tall, the chips were not sweet) – and that presently, the state denoted by the verb is what obtains. This new state is embodied by the verb itself, and is easily verifiable with the human senses. Without the perfect marker, there is no inchoative sense, and the verbs simply predicate a current state without any implication that an opposing state once existed (13) – (15).

- (13) **Bl̀òdó = !é wà**  
 bread=DEF be\_hard  
 ‘The bread is hard.’
- (14) **Gbé!ké = !é kè wàà**  
 child=DEF be\_tall very\_much  
 ‘The child is very tall.’
- (15) **Àtsòmǎ = !ǎ ñǎǎ tsǎ**  
 chips=DEF be\_sweet too\_much  
 ‘The chips are too sweet.’

The use of the perfect to signal a change of state has been reported in other languages, example Niuean (Matthewson et al 2015), Tongan (Koontz-Garboden 2007), Zulu (Buell 2005) and Xhosa (Savić 2020).

The current relevance of the perfect of result may not be as tangible as that seen in the change-of-state type. In (16) – (18), the relevance of the actions marked by the perfect is derived from knowledge about the situational context. Example (16) was uttered by a speaker narrating a story based on a picture book (*Frog Story* by Mercer Mayer). Although as noted earlier, the perfect is not used for narration, it was employed frequently by some story tellers in this task because the characters and actions were unfolding pictorially in the present. In these cases, their storytelling was, in actuality, a description of the scenes and actions they were seeing in the book at the moment of speech, hence the use of the present perfect. The implication of (17) for the conversation is that the man in question is still out of town at the time of speech. The speaker had been informing the addressee about the children of a relative who had died. Example (18) is taken from a short story. The appropriateness of the perfect for (18) stems from its relevance to the discourse topic (Comrie 1976), in the sense that the writer had spoken at length about the aunt’s hesitancy to allow her niece to go to school. Sentence (18) therefore presents new information that is

crucial to the development of the story, but at the same time is background information that does not move the story forward but provides context for the next crucial actions.

- (16) **Kòkòdédé!né = !é**      **é-bà**      **è = wèkú-mèì**      **à-ηò**  
 frog=DEF      PRF-come      3SG=family-PL      PERT-presence  
 ‘The frog has come to his relatives.’      [FS:S]
- (17) **Shí**      **nùú = !é**      **!lé**      **é-fà**      **gbè**  
 but      man=DEF      TOP      3SG.PRF-uproot      road  
 ‘But as for the man, he has travelled.’      [DF]
- (18) **È-nyèkwé**      **!lé**      **é-kplé**      **!nó**      **á!ké**      **è-bàá-nyé**      **é-tsá**  
 3SG-aunt      DEF      PRF-consent      top      that      3SG-FUT-able      3SG.SBJV-join  
**skúl-yà-à**      **nò**  
 school-go-NOM      top  
 ‘Her aunt has agreed to allow her to continue her schooling.’ (Casely-Hayford 2018; my glosses and translation)

Following Kiparsky (2002), I include under perfect of result Comrie’s “hot news perfects” or perfects that are used discursively to introduce events that have occurred recently. This is because, just like the perfects in (16) – (18), the current relevance of these perfects lies in their being discursively relevant to the participants. Sometimes, this relevance is given overtly by the speaker, an example of what Inoue (1979) and Dahl and Hedin (2000) call the explanatory sense of the perfect. In example (19) taken from a sermon, the speaker – a priest – makes a statement about his and his peers’ past activities using the present perfect. In the reason clause that follows, he makes it clear why those activities are relevant to the current situation, and that is the fact that his Gã may have some elements of the Twi (Akan) language interspersed. Examples such as (19) can also be explained using Portner’s (2003) concept of the perfect being an answer to some discourse question. In this case, the speaker anticipates that the question from his congregation would be something akin to “Why do you keep using Twi words/phrases in your sermon?”.

- (19) **Wó=yà-fò**                      **shĩ**    **yè**    **Twí**    **area=!á hèwó-!ó**  
 1PL.PRF=go-cut                      down    be\_at    Twí    area=DEF so=TOP  
**jé!mé=!é**                      **wìémó=!ó**    **wò=fútù-ò**    **lè**                      **hèwó=!ó**  
 there=DEF                      language=DEF 1PL=mix-HAB 3SG.OBJ so=TOP  
**ké**                      **àléénó**                      **Twí=!é**                      **é!kó**    **bà-fútù**    **mĩń=!é**  
 if                      perhaps                      Twí=DEF                      some    VENT-mix inside=DEF  
**nyé-mó-à**                      **lè**                      **nàkãĩ ó=nù**  
 2PL.SBJV-hold-IMP.PL 3SG.OBJ that 2SG=hear  
 ‘We have gone and roamed around in the Twi-(speaking) area. So, over there we mix up the languages. So if perhaps I mix in some Twi, take it as it is, ok.’ [CH]

#### 4.2 Perfect of quality

In Gã, verbs are a very common means of attributing a property or quality to a noun. Such verbs are termed property verbs (Campbell 2017). Among these property verbs, there are some whose predication requires perfect marking. I term this use of the perfect the *perfect of quality*. The verbs that exhibit this function are those which possess inherent, inchoative semantics, in the sense that when they occur unmarked, they indicate a transition into a state. Modification by the perfect then codes the resulting present state. Examples of sentences with the perfect of quality are:

- (20) **È=hè**                      **é-sà**                                      **kè**                      **gbòbimò**                      **ná!ákpá**  
 3SG=body                      PRF-become\_fit                                      with                      hunting                                      very.much  
 ‘He is very skilled at hunting.’
- (21) **Shìkpó!ń**                      **é-fò**  
 Ground                      PRF-become\_wet  
 ‘The ground is wet.’
- (22) **Pàpá Nĩĩ**                      **é-!lú**                                      **wàà**  
 Papa Nii                      PRF-become\_foolish                                      very\_much  
 ‘Papa Nii is very foolish.’

- (23) **Àtálé = !é**      **é-wò**      **mú!jí**  
 dress=DEF      PRF-put      dirt  
 ‘The dress is dirty.’

When not marked with the perfect, these verbs have a dynamic, inchoative reading (24) – (25).

- (24) **Shìkpón̄ = ð**      **fɔ̄**      **ní**      **nyò̄m̄ = ð**      **né**      **nyé = !é**  
 ground=DEF      become\_wet      when      rain=DEF      fall      yesterday=DEF  
 ‘The ground got wet when it rained yesterday.’

- (25) **Àtálé = !é**      **wò**      **mú!jí**  
 dress=DEF      put      dirt  
 ‘The dress became dirty.’

Other verbs that take obligatory perfect marking to encode a quality/present state are **gbí** ‘be dry’, **tòtò** ‘be tangled’, **tsù** ‘be ripe’, **bò** ‘be muscular’, **gírí** ‘be enraged’, **shà** ‘be unintelligent’, **hè kpó** ‘be good at something’. The use of the perfect to mark attributes is also reported for Swahili, Fante and Kpelle (Comrie 1976:57) and was first reported for Gã by Dakubu (2008:94). Crane and Persohn (2019:304) also observe that it is very common in Bantu languages. As these are all Niger-Congo languages, we may be looking at a genetic phenomenon. For some verbs, there is ambiguity over whether the perfect should receive a quality/present state or inchoative reading:

- (26) **Òkó**      **é-shwì**  
 Oko      PRF-be\_fat  
 ‘Oko has grown fat.’ OR ‘Oko is fat.’

A change of state interpretation is obtained when perfect of quality verbs are modified by the adverb *òyá* ‘quickly’, as shown in (27) and (28). This can be accounted for by the fact that this adverb modifies a verb by specifying the rate of occurrence of the situation coded by the verb. If the verbs in (27) and (28) for example, were given a stative interpretation (as they are in (20) and (21)), then modification by *òyá* ‘quickly’ would be impossible, as states simply ‘hold’ without any internal changes whose rate can be measured. However, as noted by Smith (2009:63), the beginnings and endings of states are dynamic and therefore

durative. The grammaticality of sentences like (27) and (28) shows that the speaker is focused on the change into the state (of wetness and being good at something), which sanctions the use of **òyá** ‘quickly’.

(27) **È=hè**      **é-sà**      **òyá**  
 3SG=body      PRF-become\_fit      quickly  
 ‘He has gotten very good quickly.’

(28) **Shìkpó!ḡ**      **é-fḡ**      **òyá**  
 Ground      PRF-become\_wet      quickly  
 ‘The ground has become wet quickly.’

Perfects of quality can therefore be viewed as the mirror images of inchoative perfects in terms of their aspectual semantics. While with perfects of quality, perfect marking results in a stative interpretation with no inchoative semantics, with inchoative perfect verb types an inchoative meaning results in the presence of the perfect. Conversely, when perfects of quality verb types occur without the perfect, they present inchoative semantics, and when inchoative perfect verb types occur without the perfect they lose their inchoative meaning. The question of which semantic types of verbs exhibit which perfect function is an important one that needs further investigation. As yet, however, there does not appear to be any obvious or clear-cut semantic tool for predicting which property verbs would fall into which category.

#### 4.3 Perfect of persistent situation

This use of the perfect differs from the perfect of result in that with the perfect of persistent situation, the event is presented as being initiated in the past but continuing into the present, whereas with the perfect of result the event is completed in the past. The present semantics of the perfect of persistent situation is conveyed by time adverbial clauses such as **étsè** ‘for a long time (Lit: ‘It has been a long time’) and **nyòjì ét!ê né** ‘It’s been three months’. Example (29) conveys the sense that the subject referents are still in residence at the location, while (30) states that the floor has been wet continuously in the past three months and is currently wet.

- (29) **Wó = hĩ**      **bí!é**      **wó = tsè**  
 1PL.PRF=live    here    1PL.PRF=keep\_long  
 ‘We’ve lived here for a long time.’
- (30) **Shìkpó!ń = !ó**    **é-fɔ**                      **nyò-jĩ**              **ét!ê**      **ně**  
 Ground=DEF    PRF-become\_wet      month-PL      three    PRX.PRED.PRT  
 ‘The ground has been wet for three months now.’

#### 4.4 Experiential perfect

This is used to indicate that an action has occurred at least once in the past. Like the perfect of persistent situation, it cannot be accomplished without the aid of an adverbial, in this case **dáń** ‘before’.

- (31) **Hĩmò**              **é-yè**              **wò**              **dáń**  
 hunger              PRF-eat              1PL.OBJ              before  
 ‘We have experienced hunger before.’ [YM]
- (32) **Ó = nã**              **Á!má**    **dáń**  
 2SG=see              Ama    before  
 ‘You have seen Ama before.’

#### 4.5 Sequential perfect

This is the most unusual use of the perfect in Gã, in that, unlike typical uses of the perfect which involve a connection between the past and the present, the sequential perfect is unconcerned with past events and their present effects and is rather focused on pluractional, iterative or habitual situations or situations that are predictable. It is also clearly aspectual. Its novelty is deserving of a more comprehensive treatment than can be accomplished here, and so I will give a brief overview of the structure and functions of this perfect. A fuller investigation will be carried out in later research. Example (33) exemplifies a typical use of this perfect. It commonly occurs in the narration of a sequential set of events comprising a temporally ordered series of activities that are presented as formulaic, fixed and methodical (Campbell 2017:257). As such, it is common in procedural narratives and descriptions of routines, and usually invites a habitual interpretation. The clauses containing the perfect are often introduced by the adverbs **kèkè** ‘(and) then’ or **bè** ‘(and) then’.



- (33) **À = tɔ̀-ɔ̀**                      **tsó**    **lè**    **à = fɔ̀-ɔ̀**                      **shì**    **kèkè**    **!lé**  
 3.IMPERS=fell-HAB    tree    DEF    3.IMPERS-put-HAB    down    then    TOP  
**á = !kpó**                                      **è-hè**                      **tótó**    **!lé**  
 3.IMPERS.PRF=remove                      3SG-body                      bark    DEF  
 ‘The tree is felled and then its bark is removed.’ (Lit: ‘They fell the tree and then they have removed its bark.’)

**À = fɔ̀-ɔ̀**                      **hè**    **kèkè**    **!lé**    **á = !ká**  
 3.IMPERS=wash-HAB    body    then    TOP    3.IMPERS.PRF=dry  
 ‘It is washed and then it is dried.’ (Lit: ‘They wash it and then they have dried it.’)  
 [BGL<sup>3</sup> 1976:56; Cloth-weaving]

The sequential perfect is also commonly found in the main clause of bi-clausal constructions, where the main clause is a temporal adverbial or conditional clause marked by **ké/ké!jí** ‘when/whenever/if’, as seen in (34).

- (34) **Shì**    **yítsò-àgbò-tsè**                      **fèé**    **nó**    **!kó**    **ní**    **dò**    **è = nànmèí !lé**  
 But    head-big-NOM                      do    thing    INDEF    REL    hurt    3SG=friends DEF  
 ‘But Bighead did something that hurt his friends.’

**Ké!jí**    **è = tsé**                      **mánò tsùrú**    **!lé**    **kèkè**    **!lé**    **é = yè**  
 when    3SG=pluck                      mango ripe                      TOP    then    TOP    3SG.PRF=eat  
 ‘Whenever he plucks a ripe mango, then he eats it.’ (Lit: ‘...then he has eaten it.’)

**Ké!jí**    **è = tsé**                      **énmílíkítí**    **!lé**    **kèkè**    **é = fɔ̀**  
 when    3SG=pluck                      unripe                      TOP    then    3SG.PRF=throw  
**é = !há**                      **è = nànmèí**    **!lé**    **yè**    **shìkpó!ń**  
 3SG.PRF=give    3SG=friends    DEF    be.at    ground  
 ‘Whenever he plucks an unripe one, then he throws it to his friends on the ground.’  
 (Lit: ‘...then he has thrown it to his friends on the ground.’) [BGL1976:72; Folktale]

<sup>3</sup> Bureau of Ghana Languages

The temporal adverbial clause cannot refer to a specific event that has been realized. It must refer to an event that is unrealized (future) or that is non-specific or indefinite (habitual, iterative). Compare (35a), which has the indefinite time adverbial marked by *ké* ‘whenever’ and (35b), which has the definite time adverbial used for past situations, *ní* ‘when’.

- (35) a. **ké ì-bà nǔ́ǔ́ kèké = !é í = bà-fèé**  
 when 1SG-come immediately then=TOP 1SG.PRF=VENT-make  
*í=smoothie*  
 1SG=smoothie  
 ‘When I come (home) then I immediately make my smoothie.’  
 (Lit: ‘When I come (home), then immediately I have made my smoothie.’)  
 [DT]
- b. **\*ní ì-bà nǔ́ǔ́ kèké = !é í = bà-fèé**  
 when 1SG-come immediately then=TOP 1SG.PRF=VENT-make  
*í=smoothie*  
 1SG=smoothie  
 ‘When I came (home), then I immediately made my smoothie.’

The sequential perfect appears to link an event at one point in time to another event temporally anterior to it and between which there are no intervening events. This sequence of events should be recurring (habitual or iterative) or should be predictable in the sense that the event coded by the sequential perfect is presented as an expected consequence of that coded by the adverbial clause, as in (35a), (36) and (3) above.

- (36) **À = bàá-!féé òtò fí!óó kò kèkè kèké = !é nyé = yè**  
 3.IMPERS=FUT-do food\_type little INDEF just then=TOP 2PL.PRF=eat  
 ‘A little *otò* will be made for you, and then you will eat.’ (Lit: ‘...and then you have eaten.’[OYO])

It is difficult to see what aspect of the meaning of the perfect makes it suitable for this function, except perhaps for its use as marker of state change. With the sequential perfect this is extended to event change. That is, recurring events which are sequentially ordered are predictable; one knows that event A will be followed by event B. Therefore, one can use

a grammatical form that conveys this notion of change and which further intimates that the change has already occurred.

A similar grammatical phenomenon is seen in the Slavic languages, where the present perfective is also employed for use for sequentially related events and habitual events (Dickey 2000:56).

#### 4.6 Modification by time adverbials

Adverbials which refer to past times in the ‘today’ window (hodiernal past) e.g. **ɲmɛ!nɛ** ‘today’, as well as those which contain the proximal demonstrative determiner **nɛ!ɛ** ‘this’ can be used with perfects (37), (38), (39a), (40a). When the hodiernal past time specification is not modified by **nɛ!ɛ** ‘this’, its acceptability is not universal (39b), (40b).

- (37) **Nũũ=!ɛ**      **é-fà**      **gbè**      **ɲmɛ!nɛ**  
 man=DEF      PRF-uproot      road      today  
 ‘The man has travelled today.’
- (38) **Áfí**      **nɛ!ɛ**      **é=bà-dàmò**      *fourteenth*  
 year      this      3SG.PRF=VENT-stand      fourteenth  
 ‘This year, it has fallen on the 14<sup>th</sup>.’ [OYO]
- (39) a. **Àmɛ-yè**      **nîî**      **lèé!bí**      **nɛ!ɛ**  
 3PL.PRF-eat      thing      morning      this  
 ‘They have eaten this morning.’
- b. **?Àmɛ=yè**      **nîî**      **lèé!bí**  
 3 PL.PRF =eat      thing      morning  
 ‘They ate in the morning.’
- (40) a. **Wó=wìé**      **8 o'clock**      **nɛ!ɛ**  
 1 PL.PRF =speak      8 o'clock      this  
 ‘We’ve spoken at 8 o’clock (today).’

- b.      ?Wó=wíé                      8 o'clock  
           1 PL.PRF =speak           8 o'clock  
           ‘We spoke at 8 o'clock.’

The picture is a bit muddier when past adverbials for times prior to today (prehodiernal) are employed. Most speakers are uncomfortable with a hesternal perfect, i.e. the co-occurrence of **nyè** ‘yesterday’ and the perfect, so that a sentence such as (41a) is unacceptable or problematic for some speakers but acceptable for others.

- (41) a.      ?Núú=!é           é-fà                      gbè           nyè  
           man=DEF           PRF-uproot           road           yesterday  
           ‘The man travelled yesterday.’

Further probing reveals however that the perfect would be compatible with **nyè** ‘yesterday’ if some context were provided to make the proposition containing the perfect relevant to the discourse topic, as in (42). This is evidence that even when the overt temporal distance of the event as indicated by the adverbial does not overlap with the time of speech, the action can still be marked by the perfect as long as it has current relevance.

- (42)   Núú=!é           é-fà                      gbè           nyè                      hèwó=ó wò=nyé-éé  
           man=DEF           PRF-uproot           road           yesterday           so=TOP   1PL=be\_able-NEG  
           wó=yá-hé                      wò=wòjĩ=è                      yè           è=dè  
           1PL.SBJV=ITIV-get           1PL=paper.PL=DEF           be\_at   3SG=hand  
           ‘The man travelled yesterday so we cannot go and get our papers from him.’

Sentence (43) would be grammatical if it were uttered in February, for example.

- (43)   Bíònyà           bèi           à-míń=!é                      àmé=!tsú           nî           wàà  
           Christmas           time           PERT-inside=DEF           3PL.PRF=work thing           very\_much  
           hèwó=!ó           há           ní           àmé=!jós           àmé=hè  
           so=TOP           give           COMP   3PL.SBJV=rest   3PL=body  
           ‘At Christmas time they worked very hard, so let them rest.’

Perfects of quality behave similarly with regard to time adverbial modification. ‘Today’ adverbs are fine but **nyè** ‘yesterday’ (44a) faces some opposition from speakers. Again, these reservations disappear once current discourse relevance is established, as in (44b).

- (44) a. **?Shìkpó!ń = !ó**      **é-fɔ̃**      **nyè**  
 ground=DEF      PRF-become\_wet      yesterday  
 ‘The ground was wet yesterday.’
- b. **Shìkpó!ń**      **é-fɔ̃**      **nyè**      **hèwó = !ó**  
 ground      PRF-become\_wet      yesterday      so=DEF  
**é-!hí-ńí**      **wò**      **kpò-jè-è**  
 NEG-be.good-NEG      1PL.OBJ      compound-exit-NOM  
 ‘The ground was wet yesterday so we could not go out.’

Interestingly, topicalising the time adverbial, especially in a contrastive topicalization construction, makes co-occurrence with **nyè** ‘yesterday’ more palatable (45).

- (45) **Nyè = !é**      **lé**      **shìkpó!ń**      **é-fɔ̃**  
 yesterday=DEF      TOP      ground      PRF-become\_wet  
 ‘As for yesterday, the ground was wet.’

Past times referring to *yesterday* and before are also acceptable with the perfect when **né!é** and the adverb **ńńńń** ‘just’ are used.

- (46) **Lólè**      **é-tswà**      **lè**      **nyè**      **ńńńń**  
 care      PRF-hit      3SG.OBJ      yesterday      just  
 ‘A car hit him just yesterday.’
- (47) **È = pàpá**      **é-!gbó**      **ótsí/afi**      **ńí**      **hò**      **né!é**  
 3SG=father      PRF-die      week/year      REL      pass      this  
 ‘His/Her father died this past week/year.’

To sum up, the perfect is compatible with events that occurred on the day of speech, as long as the time specified includes the time of speech, as is the case with events modified by **nmé!né** ‘today’. The proximal demonstrative determiner **né!é** appears to function

pragmatically to draw the temporal scope of events closer to the time of speech and even with it, thus enabling compatibility with the perfect. Hence, hodiernal and prehodiernal events with temporal adverbials modified by **ně!ě** can occur with the perfect, as long as the temporal distance is not too great. Sentence (48) for instance, is ungrammatical because a time of 40 years in the past is not felicitous with **ně!ě**.

- (48) \***È = !gbó**      *nineteen seventy-two*      **ně!ě**  
           3SG.PRF = die    nineteen seventy-two      this  
           ‘S/he died in 1972.’

What is most interesting about the data is the fact that some speakers judge as felicitous the occurrence of the perfect with definite hodiernal and prehodiernal time adverbials that do not contain **ně!ě**. This would suggest that Gã is at an early stage of the grammaticalization of the present perfect into a perfective marker. Compatibility with definite past adverbials has been noted to be one of the first steps toward relaxing the current relevance requirement of the perfect and freeing it up to take up a more tense-like past function (Bybee et. al. 1994, Dahl 1985, Schwenter 1994).

## 5. A polysemous view of the Gã perfect

At this point one may question whether, as put forward by Comrie (1976:14) for the perfect in other languages, current relevance is the semantic component that unites all the various uses of the Gã perfect. At this stage of the investigation, the answer leans toward a ‘no’, because of the sequential perfect and its disconnection from any fixed temporal anchor, present or otherwise. For Dahl (1985:133), the ‘Gesamtbedeutung’ – the essence of the perfect – is that the point of reference (vis-a-vis Reichenbach) differs from the point of the event. But again, the sequential perfect does not perfectly conform. For all except the sequential perfect use, the reference and speech time coincide, and the event time precedes them. However, with the sequential perfect, the reference, event and speech time are all separate; the reference time always precedes the event time, however, their temporal location in relation to speech time depends on the temporal reference of the initial clause. For habitual and future situations, the speech time precedes the reference and event time while for past situations, the speech time follows the reference and event time. These are illustrated in Figures 3-5.



Figure 3: Present perfect

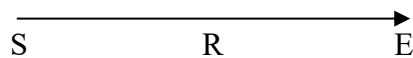


Figure 4: Sequential perfect (habitual, future)

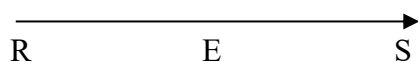


Figure 5: Sequential perfect (past)

One might proffer that it is the notion of change, also viewed as inherent in the perfect (Ritz 2012), that is the common semantic thread in all its uses in Gã. However, while the change semantics of the perfect is obvious in the perfects of result (especially the inchoative, where process or change-of-state verbs such as *become*, *grow* and *turn* are needed to render them into English), the experiential perfect and sequential perfect, it is hard to see what change occurs with the perfects of persistent situation and quality. In both cases, a situation obtains at the time of speech that has also obtained in the past. A person's attributes are presented as intrinsic and stable over time with the perfect of quality, and a situation is presented as starting in the past and continuing into the present without any change, in the case of the perfect of persistent situation.

I therefore propose a polysemous analysis of the Gã perfect, wherein the perfect overall is characterized by current relevance and change-of-state, and the different perfect functions exhibit at least one of these prime markers of perfecthood. These two semantic values are also unified by the notion of relevance, in that a situation assumes relevance in discourse once it undergoes some change. Therefore relevance is inherently intertwined with the notion of change. This relevance however, may or may not impact on the current discourse context and its participants, hence the need to distinguish relevance generally from 'current relevance'. So while both change of state and current relevance are pertinent to the perfect of result and experiential perfect, only current relevance is pertinent to the perfect of quality and perfect of persistent situation, and only change-of-state is applicable

to the sequential perfect. Nevertheless, the relevance component is discursively inherent within the change of state component, thereby unifying all the readings under the umbrella of ‘relevance’.

Table 1: Semantic components of the Gã perfect

	Change of State	Current Relevance
Perfect of result	✓	✓
Perfect of quality	✗	✓
Perfect of persistent situation	✗	✓
Experiential perfect	✓	✓
Sequential perfect	✓	✗

The perfect’s interaction with definite temporal adverbials is a fertile area for further research. Data in this work has shown that some speakers are beginning to allow the use of the perfect for events with overt hodiernal and prehodiernal time adverbials e.g. **lèé!bí** ‘morning’ and **nyé** ‘yesterday’. While all speakers surveyed accepted perfect sentences with prehodiernal time adverbials as long as current relevance was established or the demonstrative **né!é** ‘this’ was present, it is noteworthy that some speakers still found those sentences acceptable without the demonstrative or explicit current relevance contexts. For them, the perfect was a good candidate for talking about events initiated and completed in the past which have no bearing on the present. As noted by several authors (Copple 2011, Lindstedt 2000, Dahl 1985, Bybee et al 1994), this elimination of the current relevance constraint signals the beginning of the grammaticalization of the perfect into something else, in this case a perfective or past tense marker. This is still a long way away, as there is not yet universal acceptance of these specific uses. The perfect would have grammaticalized into a past tense when it can be used with past meaning in hodiernal and prehodiernal context without any adverbial specification (Schwenter 1994:89). It will then also be used for narrating past events, as is seen in narratives where the past tense is used to talk about foregrounded events and is able to move the storyline forward, unlike the present perfect which is used for commentary (Binnick 2006:40).



## 6. Conclusion

This paper has unearthed some facts about the Gã perfect that have implications for studies of the perfect in general. It has been shown here that in addition to the generally recognized uses of the perfect such as the result and experiential perfects, it is possible for the perfect to be used for the predication of qualities or attributes (perfect of quality). The perfect may also overtly predicate a change-of-state (inchoative perfect), or be used to mark predictable, iterative events that occur sequentially (sequential perfect). The last function is attested in Akan, a neighbouring language, suggesting an areal or genetic phenomenon. A polysemous analysis of the Gã perfect with relevance as the core semantic component of the various uses has been proposed. Finally, it has been shown that Gã may be at the earliest stages of developing a perfective or past tense marker from the perfect. This particular finding, and indeed all the others, would be more robust if confirmed by a large corpus of Gã, especially spoken Gã produced in informal settings.

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