

PhD project:
The polyfunctional morphemes *gà* and *ka/ká*.
PFC marking in Sara-Bagirmi

Colloquium on Linguistics, Department of African Studies
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1 The field of research

1.1 The group of Sara-Bagirmi languages

Genetic affiliation

Nilo-Saharan > Central Sudanic > West > Bongo-Bagirmi > Sara-Bagirmi:

- Bagirmi: Bagirmi, Kenga
- Central: Mbay, Kabba, Sar, Ngambay

Geographical and socio-cultural situation

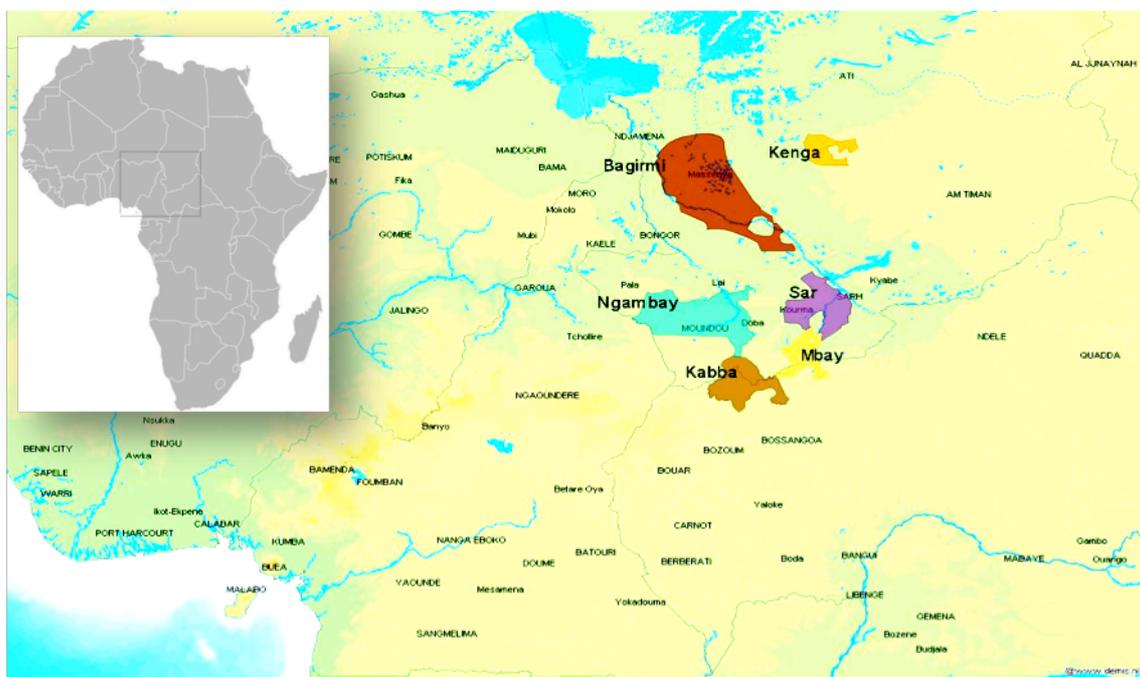


Figure 1: Languages for my project (areal information from Lewis et al. 2013)

BAGIRMI (Bagirmi): 44,800 speakers in Chari-Bagirmi region (SW Chad)

KENGA (Bagirmi): 40,000 speakers in Guéra region (SW Chad)

1.2 Information structure

1.2.1 Basic notions of topic and focus

Information structure reflects the formal means exploited to organize utterances, sentences and texts according to the **common ground of the interlocutors** (Chafe 1976, Krifka 2007). The most important categories of information structure are **topic** and **focus**.

Topic

- characterizes “what the sentence is about” (Reinhart 1981)
- it marks the old, given, presupposed or predictable information (e.g. Chafe 1976, Prince 1981, Givón 1987, Gundel 1988)

Focus

- is the most salient part of the utterance (Dik 1997: 326)
- it is also associated with the newly added, or asserted information as opposed to the presupposed information (“focus relation” Lambrecht 1994: 209ff.)

Different scopal types of focus are distinguished in the literature. Depending on the syntactic category of the element which is in focus there are (beyond other types) **term focus** and “**predicate-centered focus**” (Güldemann 2009).

Term focus

- concentrates on the information-structural marking of nominal elements

Predicate-centered focus (PCF)

- refers to the non-nominal elements, cf. figure 2

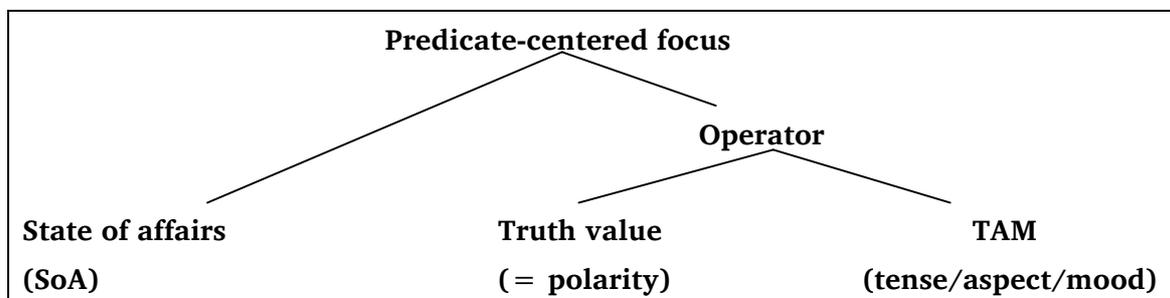


Figure 2: Basic subclassification of predicate-centered focus types (Güldemann 2009)

1.2.2 Function of PCF

Predicate-centered focus types subsume two parts:

- **focus on state of affairs** (“SoA focus”) and

- **focus on sentence operators**,

the latter one can be split into

- **focus on the tense, aspect or mood operator** (“TAM focus”) and

- **focus on the truth value of the utterance** (“Polarity focus”)

The special position of PCF in the information-structural profile results from the **function of the predicate**

- the predicate **bears the illocution of the sentence** and is **non-referential**

The predicate plays a **central role in the sentence**

- one can argue, that the predicate could be defined as “**default focus**” and therefore,

- it doesn’t need to be marked for focus

SoA focus refers to the **lexical meaning of the verb**:

(1) Q: What did the princess do with the frog?

A: She **KISSED** him.

SoA focus highlights – comparable to term focus – the **lexical meaning of an element**

– can be analyzed as **narrow focus** on the **lexical semantics of the verb**

TAM focus refers to the **tense, aspect or mood operator**:

(2) Q: Is the princess kissing the frog (right now)?

A: She **HAS** kissed him.

TAM focus highlights – like polarity focus – a **sentence operator** and this operator has **narrow scope** over the **finite element of the predication**

Polarity focus refers to the **truth value** of the utterance:

(3) A: I cannot imagine that the princess kissed the slippery frog.

B: Yes, she **DID** kiss him.

Polarity focus highlights – like TAM focus – a **sentence operator** and this operator has **narrow scope** over the **truth value of the sentence**

Most authors use the term “truth value”¹ for **affirmative utterances only**, while “polarity” **includes negative utterances** as well

→ I will use exclusively the more general term “**polarity**”

Table 1 gives an overview over the information-structural classification concerning scope and encoding possibilities:

Focus types	Scope of focus		Focused element	Host for marking
SoA	Narrow	Verb	Word	Verb
TAM	Narrow	Finiteness	Operator	Finite element
POL	Narrow	Truth value	Operator	Illocution (?)
Term	Narrow	Noun	Word	Noun
Other (VP, ...)	Wide	Phrase	Phrase	

Table 1

1.2.3 PCF marking strategies

Predicate-centered focus can be marked in different ways, e.g. by

- **stress** on the lexical verb, the auxiliary (ENGLISH) or the complementizer (GERMAN)
- **morphosyntactic strategies**, like
 - verbal doubling with extra-position (and morphological marking) (MBAY)
 - conjoint/disjoint distinction, e.g. in Bantu languages
 - special TAM's (AGHEM)
 - *do*-support (ENGLISH) or *tun*-periphrasis (GERMAN)
- **lexical elements**, like ‘really’, ‘indeed’, ...

SoA focus

Most languages provide strategies which are used to mark SoA focus, e.g.

- stress on the lexical verb or
- extra-posing of the (nominalized) focused verb

Some languages encode SoA focus **in the same way like term focus**

- the similarities between SoA focus and term focus can be explained by the fact that SoA focus refers – just as term focus – to the **lexical value** of the relevant element

¹ The descriptions on “truth value” go back to Gussenhoven (1984). Höhle (1992) investigated this phenomenon in relation to GERMAN stress and coined the term “verum”.

TAM focus

The marking of TAM focus depends more on language-internal structures

- most languages are **restricted to few TAM forms**, because
- some TAM categories have a greater focal potential than others

The verbal categories progressive, perfect, persistive, and experiential

- can be analyzed as **inherently focused verb categories** (Güldemann 2003) and
- therefore, they are often not marked for PCF

Some verbal categories are expressed by **periphrastic verb forms**,

- e.g. the progressive in ENGLISH or the perfect in GERMAN
- this forms often allow a subtle differentiation between SoA focus and TAM focus:
 - **SoA focus** is marked on the **lexical (non-finite) part** of the predication
 - **TAM focus** is marked on the **finite part** of the predication
- periphrases provides a host for marking unambiguously TAM focus

Polarity focus

Focus on the truth-value operator is often realized by special strategies

- it is found e.g. in GERMAN **subordinating strategies** by stress on the complementizer
- in ENGLISH, it can be expressed (with non-stative verbs) by the **do-support**
- in many languages, polarity focus asks for a special encoding

1.3 Perfect

The morphemes *gà* and *ka/ká* I will present here, are – at least partly – described as **perfect marker**. For this reason, I will turn briefly to the concept, the function, and the encoding means of perfect.

1.3.1 To the concept of perfect

Givón (2001: 293ff.)

- describes the perfect functionally as the most complex grammatical aspect
- characterizes perfect – and **differentiates it from past-perfective** – by four features:

Anteriority

In the perfect (as well as in the past-perfective reading),

- **the event's or state's initiation point precedes the temporal reference point**

Perfectivity

The perfect shares with the past-perfective the feature of **accomplishment** or **completion** (or a **terminal boundary**) prior to reference time

- the presence/absence of a terminal boundary depends on the **inherent perfectivity** of the verb (stative verbs have no terminal boundary: 'he's been here all day')

Counter-sequentiality

The perfect is – in contrast to past-perfective – used to code “**out-of-sequence**” events

- e.g. it marks the deviation of the normal order of events:
 - **past-perfective** is much more frequent and marks the **in-sequence**: A, B, C, D, ...
 - **perfect** is less frequent and marks the **out-of-sequence**: A, C, **B**, D, ...

Lingering (or deferred) relevance

The perfect is – contrary to the past-perfective – characterized by its relevance

- in **perfective**, the event is **relevant at the event time** (the time when it occurred)
- in **perfect**, the event is **relevant to some relevance time**

For my discussion of the morphemes *gà/ka/ká*, the most important features for characterizing the perfect are:

1. the **completeness** of an event and
2. the **lingering relevance**

1.3.2 To the function of perfect

Hyman/Watters (1984: 248) argue, that

“the perfect tense is considered to fall outside of the aspect system since ‘it does not involve a viewpoint on the internal temporal constituency of the situation’ (Watters 1980: 15) following Comrie [1976])”

→ perfect has less aspectual, but more **pragmatic function**

Hyman/Watters (1984: 248) continued to argue that the perfect can be characterized as **redundantly focal for PCF**

- therefore it has no non-focal counterpart – and this can be explained by the semantics of the perfect, i.e. **“the focusing of the completedness of the action”**

Due to the fact, that **the perfect marks the completion of an event**, it can be found

- in the “head” of “tail-head” constructions
- in the first part of “as soon as” constructions
- in the apodosis of conditional sentences

1.3.3 To (special kinds of) the realization of perfect

Even if – following Hyman/Watters (1984) – the perfect falls outside of the aspectual system, it is cross-linguistically often marked in the same way as other TAM categories, - e.g. by verbal affixes or by auxiliaries

Li et al. (1982) show, that the perfect can be expressed by other means than the typical verbal ones, too, e.g. by a **sentence-final**:

- in MANDARIN, **particle *le*** functions as an **exponent of the perfect**:
 - it indicates the ‘**Currently Relevant State**’ (CRS) and
 - can be used with **future tense reference** as well:

(4) (xià-ge yuè) wǒ jiù zài Rìběn le
 (next-CL month) I then at Japan CRS
 (Next month) I’ll be in Japan. (Li et al. 1982: 23)

→ the observation that the perfect can be expressed by other encoding means as other TAM categories confirms the **special position of the perfect** inside the TAM system

2 Operator focus in Sara-Bagirmi

2.1 KENGA

2.1.1 General remarks

- SVO language:

(5) m̀̀nd ge sé òj mínd ̀̀yo.²
 woman P DET 3S:cut throat NEG

Women do not cut the throat (of a chicken.) (Neukom 2009: 468)

- predominantly agglutinative with synthetic features

- tone language with three level tones (high: á, middle: a, low: à)

- the verbal system is organized as follows:

	Structure	Function
Simple forms		
General form (6a)	V _{FIN}	For events with no reference of time
Progressive (6b)	V _{FIN} – V _{INF}	For ongoing events ³ and focus
Future (6c)	a ⁴ _{FIN} – V _{INF}	For uncertain events with future tense reference
Derived forms		
Perfect (6d)	V _{FIN} -gà	For completed events
Resultative (6e)	V _{FIN} -gà – V _{INF}	? ⁵
Definite future (6f)	a _{FIN} -kà – V _{INF}	For certain events with future tense reference

Table 2

² In the literature for KENGA, all three tones are marked (á, ā and à). For consistency reason (with the data from BAGIRMI), I will abstain in this talk to the explicit marking of middle tones.

³ Neukom (2010: 130f.) adopts the idea, that the verbal doubling could be used for expressing the progressive, from Vandame (1968: 37). The doubling can indicate SoA focus as well, cf. (8). For this construction, further research is needed.

⁴ The future auxiliary *a* comes from the verb *hàà* ‘gehen’ (Neukom 2010: 124).

⁵ The so-called “resultative” is listed only for symmetric/parallel reasons. Neukom (2009: 474) argues that “this form focuses on the result of the action”.

(6a)	“simple” form:	m-ósò	I eat/I ate
(6b)	progressive:	m-ós k-òsɔ	I am eating
(6c)	future:	m-a k-ósɔ	I shall eat
(6d)	perfect:	m-ós-gà	I have eaten
(6e)	resultative:	m-ós-gà k-òsɔ	I had eaten
(6f)	definite future:	m-a-kà k-òsɔ	I shall certainly eat

(Neukom 2009: 467)

Term focus

Focus on nominal elements is realized by **extra-posing** and additional marking:

- (7) Korrà (ki) **ḡó** m-ɛd-iñ gûrs.
 PN LOC FOC 1S-donner-3S argent
 (À qui as-tu donné l’argent? –) C’est à Korra que je l’ai donné.
 (Neukom 2010: 224)
 (To whom did you give the money? –) It is Korra, to whom I gave the money.

In (7), the object appears **sentence-initially** and is followed by the **focus marker ḡó** - the rest of the sentence provides the background (without further marking)

Term focus structure:

[NP] ḡó_{FOC} – [...]BG

SoA focus

- can be marked by **verbal doubling**:

- (8) M-ɔɔc k-òòcò.
 1S-semer INF-semer
 (Que fais-tu ici? – Ne vois-tu pas? –) Je sème. (Neukom 2010: 130)
 (What are you doing here? – Can’t you see it? –) I am SOWING.

For the verbs in (8)

- the nominalized original is **extra-posed** and occurs in **sentence-final position**,
- the doublet is finite and **remains in-situ** inside the background part of the sentence

The construction in (8) is used to **intensify the lexical meaning of the verb**:

→ construction 1 **highlights the completion or the accomplishment of an event** – therefore it is used for **marking TAM focus**

Suffix *-gà* can be used for indicating completeness (without focus reading):

- (10) cěép-m PMUT sé j-à-ń-ó bằà tè kátkàt-ĩñ.
 gamble-CONN PN BG 1S-FUT-OBL-VENT go with paper-3S-POSS
 In the PMUT gamble, one brings the paper. (lit.: ... will bring his paper, PJ)
 kè-bằà-n-gà tè kátkàt-ĩñ sé,
 1S-go-OBL-PERF with paper-3S.POSS BG
 When one brings his paper, (lit.: ... has brought his paper, PJ)
 róo sèn ge paac ààs mààk ki ...
 name.CONN horse P all 3S.finish in LOC
 the names of all horses are written on it. (lit. the name of all horses finish on it)
 (This example is the beginning of a description of PMUT, which is a horse-race betting system, “Pari mutuel urbain du Tchad”.) (Neukom 2009: 469)

(10) is an example for a **“tail-head” construction**:

- the “tail” of the first sentence (‘one brings the paper’) becomes the “head” of the second sentence (‘when one brings his paper’)
- the resumption reflects the **updating of the common ground**
- while the first sentence shows future tense, the second one is in perfect:
 - from ‘one will bring the paper’ to ‘one **has finished** to bring the paper’

In addition, (10) shows **counter-sequentiality** which is a typical feature of **perfect**

- first part A (‘one brings the paper’) = chronological first event (A)
- **second part B (‘when one brings the paper’) = chronological third event (C)**
- third part C (‘the names ... are written on’) = chronological second event (B)
- the **out-of-sequence sentence** (which is characteristic of perfect) entails *-gà*

Suffix *-gà* can also occur in constructions expressing **“as soon as”**:

- (11) kén út-ĩñ-gà sum bó, é sia.
 SUBJ 2S:toucher-3S-PERF seulement FOC 3S:FUT s’écrouler
 Aussitôt que tu le touches, il s’écroulera. (Neukom 2010: 123)
 As soon as you touch it, it will break down.

The combination of the **conjunction *kén*** and the (**generic**) **focus marker *ǒ*** causes the “as soon as” reading

- although the sentence is translated as present tense, suffix *-gà* occurs
- suffix *-gà* expresses the **completion of an event** in the same way as in (9) and (10)

TAM focus structure:

[S – V_{FIN}-gà – O]_{FOC(OP)}

All these occurrences confirm the hypothesis that *-gà* indicates **completeness**

- but *-gà* **occurs also in future tense**, cf. construction 2

Construction 2: Certainty marking in future tense with *gà/kà*

Suffix *-gà* (which is in this construction sometimes realized as *kà*) is found in constructions expressing “**definite future**” (Neukom 2010: 127ff.):

(12a) *m-a-dó-gà* *bàà*
1S-FUT-VEN-PERF⁶ INF.go
I will certainly come. (Neukom 2009: 469)

(12b) *á-m-gà* *túgù*
3S:FUT-1S-PERF INF.laver
il me lavera certainly (Neukom 2010: 127)
He will certainly wash me.

(12) shows the **periphrastic verb form** which is used to express future tense:

- the **finite part** contains
 - the **pronominalized subject** and the **future marker *a*** (12a) or
 - the **amalgam** of the pronominalized subject and the future marker *á* (12b)⁷,
 - other elements, like ventive marker (12a) or pronominalized object (12b), and
 - finally **the suffix *gà***
- the **lexical verb** which follows is **non-finite**

⁶ Neukom (2010) glossed the suffix *-gà* (and later *-kà*) always as perfect.

⁷ In most Sara-Bagirmi languages, the subject pronoun for 3rd person singular is usually realized by a zero-morpheme. In association with an auxiliary, the pronominal tone can be present.

Palayer (2004: 59) characterized *gà* as

- (no affixed) particle

- referring to a process which **surely will be realized** or which **is already realized**

- so it highlights the **certainty of the realization of the event**

(13) màànè àà-jèki **gà** k-èède
water 3S:FUT-1P PERF INF-fall⁸

Il va sûrement nous tomber de la pluie (Palayer 2004: 59)

The rain will surely fall (for us).

Neukom (2010: 128) describes the use of *gà* with other examples clearly as **evidence for the truth or the certainty of a proposal**:

(14a) dáwà sé εδ-ĩĩ-íí kôr mètbeekì sé
médicament BG 2S:donner-3S.OBJ-? jusqu'à demain BG
naáñ è k-òη bèè.
3S 3S:FUT INF-pouvoir aller.bien

Donne-lui ce médicament, demain il ira mieux. (Neukom 2010: 128)

Give him this drug, tomorrow he will be better.

(14b) òòrsé naáñ à-kà k-òη bèè sum.
maintenant 3S 3:FUT-PERF INF-pouvoir aller.bien seulement
Maintenant il ira mieux. (Neukom 2010: 128)

Now he will be better.

The difference between both sentences lies in the expression of certainty

- (14a) can be interpreted as a **vague future sentence**: 'perhaps he will be better'

- (14b) can be interpreted as a **definite future sentence**: 'certainly he will be better'

→ construction 2 **emphasized the certainty or the truth of an event** – therefore it can be said that it is used to indicate **polarity focus** (with future tense reference):

Polarity focus structure:

[S – a-gà/kà – V_{INF} – (O)]_{FOC(OP)}

⁸ The glosses in Palayer's example are mine.

2.2 Bagirmi

2.2.1 General remarks

- SVO language:

(15) Boukar ndugo kro kɛɖɛ.
 PN PFV.buy donkey IDEF
 Boukar bought a donkey. (Jacob f.n.)

- predominantly agglutinative with synthetic features

- tone language with three level tones (high: á, middle: a, low: à)

- the verbal system is organized as follows:

	Structure	Function
General form ⁹ (16a)	V _{FIN}	For events with no time reference, usually with a perfective reading, cf. (15)
Progressive (16b)	ét ¹⁰ – V _{INF}	For ongoing events
Future ¹¹ (16c)	á – V _{INF}	For irrealis events without time reference, used e.g. for habitualis or future tense

Table 3

(16a) (née) ndugo kitàb kɛɖɛ he bought a book
 (16b) (née) n-ét ndugo kitàb kɛɖɛ he is buying a book
 (16c) (née) ná ndugo kitàb kɛɖɛ he might buy a book (Jacob 2006: 31)

⁹ In the literature this form is described as “aoriste” (Gaden 1909: 17), “definite aspect” (Stevenson 1969: 83) or “past” (Abanga/Kidda Awak 2001: 52).

¹⁰ The auxiliary *ét(u)* ‘be in a place’ is used to indicate continuous actions in present time, past time, or in the future (Stevenson 1969: 122).

¹¹ Gaden (1909: 16f.) and Abanga/Kidda Awak (2001: 52) refer to this form as “future”, Stevenson (1969: 98) characterized it as “general form” (which can e.g. used for marking future tense in the combination with additional lexical material). Gaden (1909: 16) identifies the element for marking the future reference as an *-a-* instead of the *-á-* in my own data.

Term focus

The focused element is **extra-posed** and additionally **morphologically marked**:

- (17) Q: *ɖii ɖáŋ, Boukar ndugo tɛprɛ kasko ná wà?*
what T.FOC PN PFV.buy yesterday market DET Q
WHAT did Boukar buy at the market yesterday?
- A: **Kro kɛɛ ɖáŋ,** Boukar ndugo tɛprɛ kasko.
donkey IDEF T.FOC PN PFV.buy yesterday market
Boukar bought A DONKEY at the market yesterday. (Jacob 2010: 125)

In (17-A),

- the focused object appears **sentence-initially** and is followed by the **focus marker**
- the rest of the sentence provides the background

Term focus structure:

[NP] ɖáŋ_{FOC} – [...] $_{\text{BG}}$

SoA focus

- focus on the lexical meaning of the verb can be expressed by **verbal doubling**:

- (18) Q: Boukar *táɖ djùm tɛŋ làbà sà k-sàa wà?*
PN PFV.do gruel millet or PFV.eat INF-eat Q
Did Boukar cook millet gruel or did he eat it?
- A: Boukar **táɖ** *djùm tɛŋ táɖà.*
PN PFV.do gruel millet INF.do
Boukar COOKED millet gruel. (Jacob 2010: 129)

The object

- remains inside the proposition and takes the position between both verb forms

For the verbs in (18-A)

- the **nominalized original** occurs in **right-most position**,
- the **finite doublet** remains **in-situ** inside the background part of the sentence

SoA focus structure:

[S – V_{FIN} – OBJ] $_{\text{BG}}$ – [V_{INF}] $_{\text{FOC}}$

2.2.2 Constructions with *gà* and *ka/ká*

BAGIRMI shows – in contrast to KENGA, where *gà* is only sometimes realized as *kà* in construction 2 – a **clear separation** between the two forms of the morphemes

First, *gà* is

- a **clause-final particle** which is used for **marking completeness** (construction 1)

Second, *ka/ká* functions

- as an **auxiliary** which is used for **marking certainty** in future tense (construction 2)

Construction 1: Completeness marking with *gà*

Gaden (1909) described *ga*¹²

- as a **particle**, which refers to a **completely terminated action**:

- (19) ma m-sa **ga**
 1S 1S-eat PERF¹³
 j'ai mangé (complètement) (Gaden 1909: 20)
 I ate it up.

Stevenson (1969) called *ga* a **postposition**, which is used

- to denote a **past or completed action**, which may include resultant state:

- (20) bis sa ja tɛpre **ga**
 dog 3S.eat meat yesterday PERF
 The dog ate the meat yesterday. (Stevenson 1969: 85)

With stative verbs, ***ga* is obligatory** to express a **past-perfective reading** (20b)

- it is **absent with a non-past-perfective reading** (20a)

- (21a) ma m-ɓol tobio
 1S 1S-fear lion
 I fear the lion.
(21b) ma m-ɓol tobio **ga**
 1S 1S-fear lion PERF
 I feared the lion. (Stevenson 1969: 85)

¹² Neither Gaden (1909) nor Stevenson (1969) mark tones.

¹³ All glosses in the examples taken from Gaden (1909) and Stevenson (1969) are mine.

My own data confirm these descriptions of its function and its position in the sentence:

(22) Nèè ná sà monjo ná, gót ná táđ ill gà
woman DET PFV.eat beans DET time DEF PFV.do black PERF

The woman ate the beans when it was dark. (Jacob f.n.)

(lit. The woman ate the beans when it had become dark)

The particle can be used in structures marking **operator focus**:

(23) A: Nèè ná sà monjo ná.
woman DET PFV.eat beans DET

The woman ate the beans.

B1: Awa, né sà gà (monjo ná).
yes 3S PFV.eat PERF beans DET

Yes, she DID eat the beans.

B2: È'è, né sà-lí gà (monjo ná).
no 3S PFV.eat-NEG PERF beans DET

No, she DIDN'T eat the beans. (Jacob f.n.)

Both replies in (23) highlights the **polarity operator**

- (23-B1) indicates a **confirmation**, i.e. **positive polarity focus**

- (23-B2) indicates a **contradiction**, i.e. **negative polarity focus**

Gaden (1909: 20) and Stevenson (1969: 93) observed, that *ga* is restricted to **affirmatives sentences**

- the occurrence of *gà* in (23-B2) must therefore be analyzed as a **recent phenomenon**

For the structures in (23-B), it seems to be, that *gà* occurs **adjacent to the verb**

- I assume, that the object following the verb must be interpreted as an **afterthought**:

- first, it provides background information only and

- second, it is not included in the scope of particle *lí*

Particle *lí* is an element, that is used for indicating negation

- it occurs always clause-finally (can be followed by few particles only) and

- takes only scope over the preceding elements

→ particle *gà* can be analyzed in (23-B) as occurring **clause-finally**, because the object has to be treated as an afterthought

Particle *gà* can be used to express **TAM focus** as well:

(24) Q: Né sà **gà** làbà n-ét k-sà wà?
3S PFV.eat PERF or 3S-PROG INF-eat Q

Has she eaten or is she still eating?

A1: N-ét k-sà (pta).

3S-PROG INF-eat yet

She is still eating.

A2: Né sà **gà**.

3S PFV.eat PERF

She HAS eaten. (Jacob f.n.)

As seen in (24), *gà* can be **combined with the unmarked verb form** only,

- the co-occurrence with the **progressive is excluded** (24-A1)

→ Particle *gà* occurs always **sentence-finally** and indicates **the perfect**

- with reference to the **completeness of an event** it is used to mark **TAM focus**

- with highlighting the **certainty of an event** it is used to mark **polarity focus**

- this includes **positive polarity** as well as **negative polarity**

Operator focus structure:

[S – V_{FIN} – (O) – *gà*]_{FOC(OP)}

Construction 2: Certainty marking in future tense with *ka/ká*

Particle *ka/ká*

- marks the **certainty that an action will be finished in the future** (Gaden 1909: 17)

- is described in Stevenson (1969: 103) as an **emphasizing particle**

(25a) ne **ka** taða
3S.FUT ? INF.do

il fera certainement (Gaden 1909: 17)

he'll certainly do it (Stevenson 1969: 47)

(25b) je **ka** taða
3P.FUT ? INF.do

they'll certainly do it (Stevenson 1969: 47)

(25c) deb-ge pajar **ka** ndamo
man-P tomorrow FUT.? INF.dance

People will certainly dance tomorrow (Stevenson 1969: 104)

In literature, this morpheme is characterized as follows:

- it is restricted to the **3rd person** (singular and plural)
- it always **precedes the nominalized verb** (in contrast to sentence-final particle *gà*)
- it indicates the **certainty of the realization of an event** and
- it shows a **future tense reference**

(25) shows a **periphrastic verb form** which is structurally based on the **future tense**:

- the **finite part** contains
 - the **amalgam** of the irrealis (future) marker *a* and the *ka* for marking certainty
 - the subject pronoun is realized as zero-morpheme
 - the **lexical verb** which follows is **non-finite**
- the morpheme *ka* in BAGIRMI has a similar structure as *-gà/-kà* in KENGA – it differs insofar as the future marker *a* (, the pronoun) and the certainty indicator *k* are merged

My own data show that it can be realized as *ká* as well:

- (26) Boukar **ká** k-sàa djùm tén pádjàr làbà?
PN ? INF-eat gruel millet tomorrow Q
Will Boukar eat millet gruel tomorrow?

Stevenson (1969: 46f.)

- characterized *ka* (as well as the term focus marker *dán*) as an **emphasizing particle**
- shows data with *ka* in **the apodosis of conditional sentences**, even with **negation**:

- (27a) ŋgas ɛna, to ndoŋ-iny gana, **ka** gey-iny cɪl haada.
thing DEM ? tast-3S when ? INF.like-3S very

This thing, if he tastes it, he will like it very much. (Stevenson 1969: 103)

- (27b) kɔle nji jo pɔɔf-na gana, man-na **ka** nekte.
pot bring.to.cook again fire-DEF when water-DEF ? INF.boil

If the pot stays on the fire, the water will certainly boil. (Stevenson 1969: 104)

- (27c) sa ŋgas ɛna gana, boo **ka** taɔf-i daa-li.
eat thing DEM when hunger ? INF.do-1S again-NEG

If you eat this, hunger won't affect you any more. (Stevenson 1969: 104)

Sentences (27) emphasize **the certainty that something will happen if a condition is fulfilled**

→ thus this construction can be used for marking **polarity focus**, including **positive and negative polarity**

The morpheme *ka/ká* can be combined with the **term focus** marker *dáj*:

(28) Q: Zara **ká** ndugo kro pádjàr kasko làbà?
PN ? INF.buy donkey tomorrow market Q
Will Zara buy a donkey at the market tomorrow?

A: É'è, Boukar **dáj ká** ndugo kro pádjàr kasko.
no PN T.FOC ? INF.buy donkey tomorrow market
No, BOUKAR will buy a donkey at the market tomorrow. (Jacob f.n.)

(28) shows **focus on the subject** and the **emphasizing of the certainty** as well

- the term focus marker follows the focused subject,
- the *ká* functions as auxiliary and precedes the nominalized verb

Even in sentences with **SoA focus**, the occurrence of *ká* is possible:

(29) Q: Boukar **ká** k-sàa djùm téŋ pádjàr làbà?
PN ? INF-eat gruel millet tomorrow Q
Will Boukar eat millet gruel tomorrow?

A: É'è, pádjàr ná, Boukar **ká táđ táđà**.
no tomorrow BG PN ? INF.do INF.do
No, Boukar will COOK (it) tomorrow. (Jacob f.n.)

In (29-A),

- the *ká* occurs as auxiliary and precedes the nominalized verb(s)
- SoA focus is expressed by verbal doubling, cf. (18)
- (even if the non-finite marking *k*-prefix is not visible), it can be said, that **both verbs** can be analyzed as **non-finite**

All these examples show that the morpheme *ka/ká* is used to indicate the **certainty of an event**

→ thus, construction 2 can be used to mark **polarity focus**, including **positive and negative polarity**

Polarity focus structure:

[S – ka/ká – V_{INF} – (O)]_{FOC(OP)}

2.3 Summary

In **KENGA**, morpheme *gà/kà* occurs in constructions marking the **perfect** and

- can be used for **indicating operator focus**

Structurally, it is characterized as a **verbal suffix**

- it occurs always adjacent to the (finite part of the) verb

Formally, it's occurrence can be divided into **two different constructions**

In the **first construction**, *-gà* is used for **indicating completeness**

- it is found in the second part of “**tail-head**” or “**as soon as**” constructions

→ with the reference to the **completeness**, it can be used for marking **TAM focus**

In the **second construction**, *-gà/-kà* marks the **certainty of an event** (or the **relevance of realizing the event**) with an exclusive **future tense reference**

→ here the aspect of **deferring relevance** is most important, because of that the perfect indicator can be used for marking **polarity focus**

In **BAGIRMI**, morphemes *gà* and *ka/ká* can be used for **indicating operator focus**,

- but they occur in constructions that differ in form as well as in function:

In the **first construction**, particle *gà*

- functions as a perfect or completeness marker

- occurs always as a clause-final particle

→ with the reference to the completeness, this construction can be used to mark **operator focus (restricted to perfective events)**

- including (perfective) **TAM focus** and (positive and negative) **polarity focus**

In the **second construction**, morpheme *ka/ká*

- functions as an emphasizing element expressing the certainty for the realization of the event expressed by the verb

- refers only to future tense and is restricted to 3rd person (singular and plural)

- can be analyzed as amalgam of pronoun, future and certainty marking

- occurs in the apodosis of conditional sentences

→ with reference to **lingering relevance**, this construction can be used to express **operator focus** as well, but restricted to (positive and negative) **polarity focus (with future tense reference)**

3 Comparison and outlook

At the beginning of my comparison, I will have a detailed **look at the structures** used in the different constructions presented here.

The first construction contains in both languages the morpheme *gà*, which is embedded in different structures:

- Completeness marking in KENGA: $[S - V_{\text{FIN}}\text{-gà} - O]_{\text{FOC(OP)}}$
- Completeness marking in BAGIRMI: $[S - V_{\text{FIN}} - O - \text{gà}]_{\text{FOC(OP)}}$

Both languages use the simple or **general verb conjugation**, i.e. the unmarked form which is mainly used for marking perfective events. While the morpheme in KENGA is **suffixed to the finite verb**, it occurs in BAGIRMI as **clause-final particle**.

The second construction shows as well similar structures in the languages:

- Certainty marking in KENGA: $[S - a\text{-gà/kà} - V_{\text{INF}} - O]_{\text{FOC(OP)}}$
- Certainty marking in BAGIRMI: $[S - ka/ká - V_{\text{INF}} - O]_{\text{FOC(OP)}}$

Both languages use the typical **periphrastic verb conjugation** for future tense. In KENGA, the auxiliary for marking future *a* is present and the morpheme *gà/kà* is suffixed to this auxiliary. In BAGIRMI, the auxiliary for marking future *a/ə* is absent. I assume, that the auxiliary and the morpheme *ka/ká* are **merged with each other**, i.e. the future marker is completely absorbed in the morpheme *ka/ká*. With this hypothesis, the structures are totally identical in both languages: $[S - \text{AUX}_{\text{CERTAINTY}} - V_{\text{INF}} - O]_{\text{FOC(OP)}}$.

Now I will concentrate on the **function of the constructions**. As seen in the examples, BAGIRMI and KENGA uses *gà/ka/ká* in different ways. I will argue that all occurrences are instances for marking the **perfect**. This hypothesis bases on the definition of the perfect by Givón (2001), who characterized the perfect by the features: **Anteriority, Perfectivity, Counter-sequentiality and Lingering/deferring relevance**.

In **the first construction** in BAGIRMI and KENGA which indicates completeness of an event, all four features – at least in some examples – are attested. Thus, **the first construction is used to indicate the perfect**.

The second construction can be analyzed as marking the perfect as well. Even if it lacks the features anteriority and counter-sequentiality, **it contains the lingering or**

deferring relevance, as presented in (4). The feature **perfectivity** can be found as **emphasizing the completion** of an event. If the completion is used in terms of ‘I’m sure that the event will be finished’, this feature can be applied for sentences with a future tense reference as well. This intention is found in most of the examples presented here for the second construction. Thus, one can say that **the second construction is used for marking the perfect**.

With the assumption that all constructions presented here are used to mark the perfect, table 4 gives an overview over the form and the function of the morpheme(s) *gà/ka/ká* in KENGA and BAGIRMI:

	Kenga	Bagirmi
Construction 1:		
Morpheme <i>gà</i>		
Form	Suffix <i>-gà</i>	Particle <i>gà</i>
Position	Adjacent to the verb	Clause-finally
Function	Completeness indicator	Completeness indicator
Restrictions	Perfective events	Perfective events
Information structure	TAM focus	TAM focus and polarity focus
Construction 2:		
Morpheme <i>gà/ka/ká</i>		
Form	Suffix <i>-gà/-kà</i>	Auxiliary <i>ka/ká</i>
Position	Adjacent to the finite verb	Adjacent to the finite verb
Function	Certainty indicator	Certainty indicator
Restrictions	For future only	3 rd person in future only
Information structure	Polarity focus	Polarity focus

Table 4

As seen in the table, although the constructions are used differently, they have one in common: They are used for indicating **operator focus**. Here, it is interesting, that KENGA shows a clear separation between both types. While the **first construction** can be used for marking **TAM focus** only, the **second construction** can exclusively mark **polarity focus**. This differentiation can be explained by the fact that the first construction, on the one hand, refers (with the expression of completeness of an action) more to **aspectual issues**; the second construction, on the other hand, refers

(with the highlighting of the certainty of an action) more to the **truth value of the sentence**.

For completing the picture, it is worth noting, that the first construction is restricted to completed actions. KENGA marks polarity focus with no future tense reference by the strategy of “topic preposing” (Güldemann 2010). Therefore, “topic preposing” can be analyzed as the main strategy for focusing polarity, while the first construction with -gà is used only with the special reading referring to future tense events.

Based on the findings, one can create – at least – **two hypotheses concerning the development** of the different constructions containing the morpheme(s) *gà/ka/ká*:

1. Different morphemes with different functions:

Starting with the situation in BAGIRMI, the constructions differ in form as well as in function, but they are linked with the pragmatic meaning. The first construction contains the clause-final particle *gà* which is used to indicate the completeness of an event. The second construction entails another morpheme, *ka/ká*, which functions as an auxiliary, and which is used to highlight the certainty of an event. The latter strategy shows many restrictions. First, it can exclusively combined with the 3rd person; and second, it refers only to the future tense. These differences could be taken as strong enough to say, that both morphemes cannot have one and the same basis.

With the focus on BAGIRMI, one can argue, that in KENGA as well the constructions with *gà/kà* are different. They converged during the time, and now, they show lots of structural similarities, but **they are based on two different morphemes**, cf. figure 3.

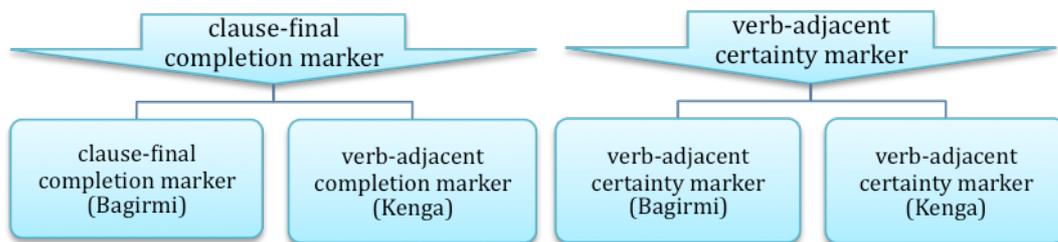


Figure 3

2. One morpheme with different functions:

Starting with the situation in KENGA, the morphemes *gà* and *kà* are used as verbal suffixes, but they differ in function: While the first one marks only completeness, both variants are found in structures for indicating certainty with future tense reference.

Due to the similarities one can argue, that *gà* (which is sometimes realized as *kà*) is **only one pragmatic element**, e.g. a special **perfect marker**, which subsumes the functions of marking completeness and/or certainty, because it contains the features of the completion of an event and the lingering relevance.

In BAGIRMI, both morphemes show differences in form as well as in function. They have only in common, that they are used in the same pragmatic context. Looking for common roots of both morphemes, it is worth noting, that *gà* in BAGIRMI as well often occurs adjacent to the verb. This can be explained by the fact, that in sentences with a non-focused object usually the verb occupies the clause-final position. For example, if the object is not in focus, but the verb, the object can be extra-posed to sentence-initial position or it can be resumed as a pronominal suffix inside the verb. Both operations make sure, that the verb stays sentence-finally instead of the object. The sentence-final position is – in BAGIRMI – the preferred position for (unmarked) focus.

Returning to the constructions with the morphemes *gà* and *ka/ká*. For both, one can imagine, that they go back to structures with a clause-final particle. During the time, the morpheme and the verb cannot longer stayed be separated, because they form an alliance. This allows the (former) particle to occur adjacent to the verb, cf. figure 4.



Figure 4

It is interesting, that related languages, like MBAY or KABBA, neither show morphological encoding means for perfect, completeness or certainty nor do they use the morpheme(s) *ga*, *ka* or *ká* in any kind of verbal conjugation or for emphasizing. Other languages of the Nilo-Saharan Phylum do: KANURI has a verbal suffix *-gà* which occurs very often in “as soon as” constructions (Fiedler p.c.). In AMA, the morpheme *kà* is used in constructions for expressing completeness as well as future, and it plays an important role for realizing PCF (Fiedler p.c.).

Based on this observation, **I will argue that *gà* and *ka/ká* can be analyzed as one and the same morpheme**. For the confirmation this hypothesis, further research is needed.

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