

THE CONJOINT/DISJOINT ALTERNATION IN BARI AND ITS ORIGINS

Shuichiro Nakao
The University of Osaka

Abstract

This study describes the hitherto unknown morphosyntactic alternation in Bari (Eastern Nilotic) that resembles what is called a “conjoint/disjoint” alternation in Bantu linguistics, and investigates its development. In Bari, this alternation has a peculiar attestation in dynamic transitive imperfective clauses, where the “conjoint” form is homophonous with the “focus” form of the verb, while the “disjoint” form is homophonous with the “potential” form. By analyzing various readings of these verb forms, as well as the other conjoint/disjoint-like alternations in various clause types (causative complement, relative, and sequential), we argue that the development of these alternations in Bari started with the functional expansion of the TAM-neutral “focus” form.

Keywords: Eastern Nilotic, Bari, conjoint/disjoint, focus, transitivity

1. INTRODUCTION

This study aims to provide a synchronic description of a hitherto unknown verbal alternation in Bari, an Eastern Nilotic language of South Sudan (ISO639-3: bfa), and a preliminary analysis of its diachronic development.¹

Bari has two imperfective verb forms, represented in the active/antipassive/anticausative clauses in (1)² by *der-já* and *dé~der-ja* (with the multifunctional suffix -CV) and in the passive clauses in (2) by *der-á* and *dé~dér-a* (with the passive suffix -V), which are in complementary distribution: the former (‘IPFV.CJ’) is always followed by an object or an adverbial, while the latter (‘IPFV.DJ’) is required in clause-final position (but not limited to this position; see Section 4).

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² Bari is a tonal language with complex phonological and morphological tonal alternations (Yokwe 1987). We transcribe Bari phonologically by using the equivalent IPA signs (the low tone [ˊ] is left unmarked). Abbreviations: * ungrammatical, # semantically/contextually ill-formed, 1/2/3 person, CJ conjoint, COMP causative complement, COP copula, DEF definite, DET determiner, DIST distal, DJ disjoint, F feminine, FOC focus, FREQ frequentative, IMP imperative, INTR intransitive verb class ending, IPFV imperfective, IRR irrealis, L low tone, M masculine, MED medial, NH non-human, NPST non-past, OBJ object, PASS passive, PL plural, PRET preterit, PROX proximal, REL relative, SEQ sequential, SG singular, SUF active/antipassive/anticausative suffix -CV, TAM tense-aspect-modality, TOP topic.

- (1) a. *nân der-ǵá súkuri (ná).*
 1SG IPFV.CJ:cook-SUF chicken(.F) DEF.SG.F
 ‘I cook/am cooking (the) chicken.’ (active)
- b. *nân der-ǵá pérok lɪŋ / sɔŋɪnaná.*
 1SG IPFV.CJ:cook-SUF day all now
 ‘I cook every day/I am cooking now.’ (antipassive)
- c. *súkúri der-ǵá í mudá.*
 chicken IPFV.CJ:cook-SUF in pot
 ‘The chicken is cooking in the pot.’ (anticausative)³
- d. **nân der-ǵá.*
 1SG IPFV.CJ:cook-SUF
 intended: ‘I cook/am cooking.’ (antipassive)
- e. **súkúri der-ǵá.*
 chicken IPFV.CJ:cook-SUF
 intended: ‘The chicken is cooking.’
- f. *nân dé~der-ǵa.*
 1SG IPFV.DJ~cook-SUF
 ‘I cook/am cooking.’ (antipassive; see 4.2 for another reading)
- g. *súkúri dé~der-ǵa.*
 chicken IPFV.DJ~cook-SUF
 ‘The chicken is cooking.’ (anticausative; see 4.2 for another reading)
- h. **nân dé~dér-ǵá súkuri.*
 1SG IPFV.DJ~cook-SUF chicken
 intended: ‘I cook/am cooking.’ (active; see 4.1 for another reading)
- (2) a. *súkúri der-á í mudá.*
 chicken IPFV.CJ:cook-PASS in pot
 ‘The chicken is being cooked in the pot [by someone].’ (passive)
- b. **súkúri der-á.*
 chicken IPFV.CJ:cook-PASS
 intended: ‘The chicken is being cooked [by someone].’ (passive)
- c. *súkúri dé~dér-a.*
 chicken IPFV.DJ~cook-PASS
 ‘The chicken is being cooked [by someone].’ (passive)

³ While passive implies an unmentioned agent, anticausative does not.

Although this type of morphosyntactic alternation has not been widely recognized in Nilo-Saharan linguistics, it shows a striking resemblance to what is known as the “conjoint/disjoint (CJ/DJ)” alternation in Bantu linguistics.

In Bari, this alternation is complicated by two instances of homophony: the shorter forms (with the word-initial L/low tone) *der-já* and *der-á* are also the ‘focus’ forms and the reduplicated forms *dé~der-ja* (pre-nominally *dé~dér-já*) and *dé~dér-a* also serve as “potential” forms in some contexts.⁴ This study provides a first detailed account of this type of alternation in a Nilo-Saharan language and will discuss how the attested homophonies reflect a patchwork-like diachronic development of the ‘imperfective’ paradigm.

The study is structured as follows: Section 2 briefly reviews the discussions of the ‘CJ/DJ’ alternation in Bantu linguistics and some attestations of similar phenomena in the Nilo-Saharan phylum. Section 3 outlines the basic verbal morphosyntax of Bari and argues that the development of the CJ/DJ alternation is diachronically new. Section 4 discusses the complexity concerning the interpretations of the reduplicated (‘DJ imperfective’ or ‘potential’) verb form. Section 5 examines the relations between focus and imperfective. Section 6 presents other cases of CJ/DJ-like alternation in Bari and the proposed diachronic development. Section 7 offers concluding remarks.

2. CONJOINT/DISJOINT ALTERNATION: A BRIEF REVIEW OF THE LITERATURE

There is a growing quantity of literature on the ‘CJ/DJ’ alternation in Bantu languages (van der Wal and Hyman 2016). As exemplified below by Zulu (adapted from Buell 2006; glosses are my own), typically, a special ‘DJ’ marking is required on the verb (especially progressive), when it is realized in clause-final position (3b), while the CJ form is left unmarked (3c).⁵ Many Bantu languages attest to the interplay between DJ marking and predicate focus (van der Wal and Hyman 2016), but, at least in some cases, this DJ marking is distinct from information structure (Buell 2006).

- (3) a. **a-bafana* *ba-cula*.
 DET-boys 3PL-sing
 b. *a-bafana* *ba-ya-cula*.
 DET-boys 3PL-DJ-sing
 ‘The boys are singing.’

⁴ In our glossing, we distinguish ‘FOC’ vs. ‘IPFV.CJ’ and ‘POT’ vs. ‘IPFV.DJ’ for these homophonous forms. However, in some contexts, the same form can have either meaning.

⁵ Some Bantu languages allow an argument (object) after the ‘DJ’ verb form, which encodes the object as not being in focus (van der Wal and Hyman 2016), while other languages do not (Buell 2006).

c.	<i>a-bafana</i>	<i>ba-cula</i>	<i>i-ngoma.</i>
	DET-boys	3PL-sing	DET-song
	‘The boys are singing a song.’		
d.	<i>*a-bafana</i>	<i>ba-ya-cula</i>	<i>i-ngoma.</i>
	DET-boys	3PL-DJ-sing	DET-song

As discussed below, Bari not only exhibits a similar verbal alternation, but also similar associations with specific TAM marking (e.g., imperfective) and information structure.

Although this type of morphosyntactic alternation is still only sparsely attested in non-Bantu (or non-Niger-Congo) languages, a few recent studies on Nilo-Saharan Surmic languages (Dimmendaal 2020 on Baale, Joswig 2019 on Majang) have adopted these terms (see also Will 1989 on the similar alternations in the other Surmic languages). Within other Nilo-Saharan branches, it is also noteworthy that Ma’di, a Central Sudanic language and a geographical neighbor to Bari, attests to a similar constraint (Blackings and Fabb 2003), while Berta, an isolated Eastern Sudanic language, also has a comparable structure, in that the verb has a semantically empty suffix *-ʔ* if it is not followed by an argument (Nakao 2019).

3. A SKETCH OF BARI VERBAL MORPHOSYNTAX

This section introduces the inflectional morphology of basic verbs and the complex correlation of clause types and clause structures.

3.1 Inflectional categories

Verbal inflection in Bari involves a few multifunctional morphological processes. A dynamic transitive verb distinguishes between 12 basic forms, as exemplified with *der* ‘cook’ and *km* ‘close’ in (4), which represent two tonal classes (Yokwe 1987). Some of the -CV forms have pre-nominal variants (shown in brackets as ‘+N’). The passive(-cum-infinitive) suffix -V (rightmost column) and the imperative-cum-sequential suffix *-i/e/ɛ/ni* (fourth line)⁶ are relatively functionally transparent, but the other forms are correlated with various TAM markings (such as imperfective, potential, future, preterit and perfect), (in)transitivity, relativization, and information structure in a highly complex way, as will be illustrated to some extent in the following sections. At this point, note that the imperfective aspect marking (for both CJ and DJ) requires a suffix (-CV or -V).⁷

⁶ While the imperative ends in a high tone as shown in (4), the sequential form ends in a falling tone (see Section 6.3). However, with ‘polite’ intonation, the imperative form can also surface with a word-final falling tone.

⁷ In other words, the non-suffixed transitive form (basically) lacks the imperfective reading, except stative transitive verbs (see Section 4.1).

(4)	-Ø	-CV ('SUF')	-V ('PASS')
Ø (infinite)	<i>dér</i>	<i>dér-ja</i> (<i>dér-ja</i> +N)	<i>dér-â</i>
word-initial L ('FOC, IPFV.CJ')	<i>dér</i>	<i>dér-ja</i>	<i>dér-â</i>
reduplication ('POT, IPFV.DJ')	<i>dér~dér</i>	<i>dér~dér-ja</i> (<i>dér~dér-ja</i> +N)	<i>dér~dér-a</i>
-i/e/é/ni ('IMP, SEQ')	<i>dér-é</i>	<i>dér-j-í</i>	<i>dér-a-ní</i>
Ø (infinite)	<i>kín</i>	<i>kín-dô</i>	<i>kín-ô</i>
word-initial L ('FOC, IPFV.CJ')	<i>kín</i>	<i>kín-dô</i>	<i>kín-u</i>
reduplication ('POT, IPFV.DJ')	<i>kín~kín</i>	<i>kín~kín-dô</i>	<i>kín~kín-ô</i>
-i/e/é/ni ('IMP, SEQ')	<i>kín-é</i>	<i>kín-d-í</i>	<i>kín-u-ní</i>

Intransitive verbs lack the voice-related -Ø/-CV('SUF')/-V('PASS') distinction in transitive verbs (4), but they have a specific ending (formally similar to the transitive endings) without any function (hereafter collectively glossed as 'INTR') according to its class. The -V class has two tonal classes corresponding to the passive paradigms of the transitive verb.⁸

(5)	-Ø class	-CV class	-V classes	-Vn class
Ø	<i>rûm</i>	<i>dûr-ja</i>	<i>dôt-ô</i> <i>war-â</i>	<i>róm-án</i>
word-initial L	<i>rum</i>	<i>dúr-ja</i>	<i>dot-ó</i> <i>war-a</i>	<i>róm-án</i>
reduplication	<i>rú~rûm</i>	<i>dûr~dûr-ja</i>	<i>dó~dôt-o</i> <i>wá~war-â</i>	<i>ró~róm-an</i>
-i/e/é/ni	<i>rum-é</i>	<i>dúr-j-í</i>	<i>dot-o-ní</i> <i>war-a-ní</i>	<i>róm-é</i>
	'meet'	'grow'	'sleep' 'walk'	'greet'

3.2 -CV suffix: Correlation of clause types and clause structures

Bari exhibits different clause structures depending on the clause types.

To begin with a preterit clause (6), the -CV suffix (realized here as *-ja*) encodes non-topic object (6a) or intransitive (antipassive and/or anticausative) constructions (6b,c,d), while the unmarked verb encodes a topicalized object or a

⁸ There are a few irregular transitive verbs that behave like -V intransitive verbs (e.g., *jaŋ-â* 'want', *gwár-â* 'buy'). These verbs lack the voice-related -Ø/-CV/-V alternation (4).

zero pronoun (6e,f,g) (Spagnolo 1933, Nakao 2024). However, unlike (1) and (2), the clause-finality (or ‘constituency’, Buell 2006) does not affect the verbal form, as both the suffixed and the unmarked form can be followed by an object or adverb, as shown in (6). The same applies to the imperative (7).

- (6) a. *nân a dér-ja súkuri.*
 1SG PRET cook-SUF chicken
 ‘I cooked chicken.’ (non-topic object)
- b. *nân a dér-ja.*
 1SG PRET cook-SUF
 ‘I cooked.’ (antipassive)
- c. *nân a dér-ja káje.*
 1SG PRET cook-SUF yesterday
 ‘I cooked yesterday.’ (antipassive)
- d. *súkúri a dér-ja.*
 chicken PRET cook-SUF
 ‘The chicken is/was cooked.’ (anticausative)
- e. *nân a dér súkuri ná.*
 1SG PRET cook chicken DEF.SG.F
 ‘I cooked [the chicken]_{TOP}.’ (topic object)
- f. *nân a dér Ø.*
 1SG PRET cook 3.NH
 ‘I cooked it.’ (zero pronoun object)⁹
- g. *súkúri ná, nân a dér Ø.*
 chicken DEF.SG.F 1SG PRET cook 3.NH
 ‘[The chicken]_{TOP}, I cooked it.’ = (5e) with left-dislocation
- (7) a. *dér-j-í súkuri!*
 cook-SUF-IMP chicken
 ‘Cook (the) chicken!’ (non-topic object)
- b. *dér-j-í!*
 cook-SUF-IMP
 ‘Cook!’ (antipassive) or ‘Become cooked!’
 (e.g., as if said to a chicken in the pot)’ (anticausative)

⁹ In some TAMs, e.g., (6f,g), a non-human (NH) object pronoun is encoded as Ø. The 3SG pronoun *jé* or *lópéj* (free variation) in these constructions encodes a human object (e.g., *nân a dér je*. ‘I cooked him.’). As exemplified in (8), a remarkable violation of this principle is found in imperfective clauses, where it encodes both human and non-human objects.

- c. *der-é* *súkuri!*
 cook-IMP chicken
 ‘Cook [the chicken]_{TOP} / The chicken, cook it!’ (topic object)
- d. *der-é* *Ø!*
 cook-IMP 3.NH
 ‘Cook it!’ (zero pronoun)

This suffix originates from an antipassive suffix shared by many southern Eastern Sudanic languages, which later developed into an active (and anticausative) suffix in the Bari branch (Nakao 2024).

On the other hand, the topicality of the object has no effect in the other clause types, *inter alia* the affirmative imperfective, which has the CJ/DJ alternation. As such, (8), a version of (1a) with a left-dislocated topicalized object, exhibits the -CV suffix and the resumptive pronoun, unlike its preterit counterpart (6g). In other words, the -CV suffix is simply a default (non-passive) verbal ending in the affirmative imperfective.

- (8) *súkúri ná, nân der-já *(ne).*
 chicken DEF.SG.F 1SG IPFV.CJ:cook-SUF 3SG
 ‘The chicken, I am cooking it.’

As illustrated later in Section 6, causative, relative, and sequential clauses take the affirmative imperfective pattern.¹⁰ Since in the imperfective the -CV suffix has lost the original topicality-related function shown in (6) and (7) for preterit and imperative clauses, respectively, it is assumed that the CJ/DJ-like alternations are historically new, but it is unclear how these alternations were formed. To answer this, we will look into the homophony of imperfective forms in the next sections.

4. INTERPRETATIONS OF THE REDUPLICATED FORM: LEXICAL ASPECT AND TRANSITIVITY

This section describes the interpretations of the reduplicated form according to various verb types (transitive vs. intransitive, dynamic vs. stative).

4.1 Dynamic vs. stative (transitive)

In Bari, the distinction between dynamic and stative lexical aspect surfaces in the interpretation of the reduplicated form of transitive verbs. As shown in (9), it

¹⁰ Also note that some other clause types, such as infinitive and frequentative, are affected by neither the topicality of the verb nor clause-finality, while others (such as negative imperfective/potential) are affected by both.

encodes both transitive conjoint imperfective and (aspect-neutral) potential for stative verbs, but only potential for dynamic verbs.¹¹

(9) a. stative transitive

nân *ɲa~ɲár* *ʃúba.*

1SG IPFV.CJ/POT-like Juba

‘I like Juba.’ (imperfective)

‘I can/may like Juba.’ (potential)

b. dynamic transitive

nân *dɛ~dér* *súkuri.*

1SG POT-cook chicken

#‘I cook/am cooking chicken.’ (imperfective)

‘I can/may cook chicken.’ (potential)

In a potential transitive clause, the verb can optionally (and rarely) take the -CV suffix (10). The functional difference between the suffixed and non-suffixed forms is unclear at this point, but it is not affected by information structure (e.g., topicality of the object, scope of focus), and the suffixed form does not allow the imperfective reading of (9a).

(10) a. *nân* *ɲá~ɲar-ʃô* *ʃuba.*

1SG POT-like-SUF Juba

‘I can/may like Juba.’

b. *nân* *dɛ~dér-ʃá* *súkuri.*

1SG POT-cook-SUF chicken

‘I can/may cook chicken.’

This type of morpho-semantic dichotomy, where a ‘present’ form of a dynamic (perfective) verb cannot encode imperfective, is attested in a number of languages, including Japanese (11) and Juba Arabic (12). In the literature, this phenomenon is dubbed ‘present perfective paradox’ by De Wit (2017).

¹¹ Stative transitive verbs include *ɲar* ‘like, love’ and *dɛn* ‘know’. The same applies when an adverbial follows them; it is thus labeled here ‘CJ’: *ɲé dɛ~dén parík* (3SG IPFV.CJ-know very) ‘He knows very well.’ In the verb-final sentences, the suffixed (disjoint) form is used: *ɲûn ɲá~ɲar-ʃô* (God IPFV.DJ/POT-love-SUF) ‘God loves/may love.’

(11) Japanese

- a. *úchuu = wa á-r-u.*
 universe=TOP exist-NPST
 ‘The universe exists.’ (stative)
- b. *úchuu = wa shibóm-ú.*
 universe=TOP shrink-NPST
 ‘The universe will/may shrink.’ (dynamic)

(12) Juba Arabic

- a. *ána (bi=)áruf íta.*
 1SG IRR=know 2SG
 ‘I know you.’ (stative; *bi=* is optional for this interpretation)
- b. *ána bi=dúgu íta.*
 1SG IRR=hit 2SG
 ‘I will/may hit you.’ (dynamic)

4.2 Intransitive/detransitive

In contrast to transitive verbs, the reduplicated form of all intransitive/detransitive verbs (stative and dynamic; passive, anticausative and antipassive) has both imperfective and potential readings when followed by an adverbial. In other words, intransitive/detransitive clauses have two ways of encoding the imperfective in clause-medial positions, (1)-(2) with the CJ form vs. (13) with the DJ form; these are distinguished by information structure, as will be discussed in Section 5.¹²

(13) a. stative intransitive

lɔpɛŋ lɔl~lɔlɔŋ-an parík.
 3SG IPFV.DJ/POT~sleep-INTR very
 ‘He is very happy.’ (imperfective)
 ‘He can/may be very happy.’ (potential)

b. dynamic intransitive

lɔpɛŋ dɔ~dɔt-o í baŋ.
 3SG IPFV.DJ/POT~sleep-INTR in house
 ‘He is sleeping at home.’ (imperfective)
 ‘He can/may sleep at home.’ (potential)

¹² The DJ form can have a post-verbal element in some Bantu languages, depending on information structure (van der Wal and Hyman 2016), in parallel with Bari.

c. passive

súkúri dé~dér-a í moda.

chicken IPFV.DJ/POT-cook-PASS in pot

‘The chicken is (being) cooked in the pot.’ (imperfective)

‘The chicken can/may be cooked in the pot.’ (potential)

d. anticausative

súkúri dé~der-ja í moda.

chicken IPFV.DJ/POT-cook-SUF in pot

‘The chicken is cooking in the pot.’ (imperfective)

‘The chicken can/may cook in the pot.’ (potential)

e. antipassive

nân dé~der-ja pérók lɪŋ.

1SG IPFV.DJ/POT-cook-SUF day.PL all

‘I cook every day.’ (imperfective)

‘I can/may cook every day.’ (potential)

On the other hand, when the identical form occurs at the end of a clause,¹³ the default reading is imperfective (14), although it still allows the potential reading. As such we label it ‘IPFV.DJ(/POT)’ in these examples.

(14) a. *lɔpɛŋ dó~dót-o.*

3SG IPFV.DJ(/POT)-sleep-INTR

‘He sleeps/is sleeping.’ (imperfective)

?‘He can/may sleep.’ (potential)

b. *súkúri dé~dér-a.*

chicken IPFV.DJ(/POT)-cook-PASS

‘Chicken is (being) cooked.’ (imperfective)

?‘Chicken can/may be cooked.’ (potential)

c. *nân dé~der-ja.*

1SG IPFV.DJ(/POT)-cook-SUF

‘I cook/am cooking chicken.’ (imperfective)

?‘I can/may cook chicken.’ (potential)

¹³ Note that there are clauses which superficially resemble verb-final clauses. When a transitive verb without a suffix is realized at the end of the clause, it implies a zero-coded object pronoun and codes the potential, e.g., *nân dé~dér Ø*. (gloss: 1SG POT-cook 3.NH) ‘I can/may cook it.’

The potential DJ, however, is encoded by a periphrastic construction with an auxiliary verb (15).¹⁴ The same verb can take an object, although our speaker prefers (9) or (10).

- (15) a. *nân bú~bulÁ der-ja.*
 1SG POT~can cook-SUF
 ‘I can cook.’ (potential)
- b. *nân bú~bulÁ dér-já súkuri.*
 1SG POT~can cook-SUF chicken
 ‘I can cook chicken.’ (potential)

4.3 Summary of the section

The distribution of the reduplicated forms is thus complex in synchronic terms; it encodes either potential or imperfective (or both) depending on clause-finality, suffixation, lexical aspect, and transitivity, as summarized in Table 1.

Table 1: Interpretation of the reduplicated forms

		Clause-medial	Clause-final
stative	<i>na~nár</i>	potential ~ imperfect.	-----
	<i>ná~nar-jô</i>	potential (rare)	potential ~ imperfect.
dyn. trans.	<i>de~dér</i>	potential	-----
	<i>dé~dér-já</i>	potential	-----
dyn. anticaus.	<i>dé~der-ja</i>	potential ~ imperfect.	imperfect. (~ potential)
dyn. antipass.	<i>dé~der-ja</i>	potential ~ imperfect.	imperfect. (~ potential)
dyn. passive	<i>dé~dér-a</i>	potential ~ imperfect.	imperfect. (~ potential)
intransitive	<i>dó~dót-o</i>	potential ~ imperfect.	imperfect. (~ potential)

We notice two interesting tendencies from the table: the dynamic transitive verbs completely lack the imperfective reading of the reduplicated form, and the (non-transitive) reduplicated forms basically encode imperfective in clause-final position.

The former seems relevant to the ‘present perfective paradox’, but the latter needs a different explanation. Before giving an answer to this, we will examine the fact that the IPFV.CJ form is homophonous with the ‘focus’ form of the verb in the next section.

¹⁴ There are several options for the auxiliary verb, e.g., *de~dén* ‘know (how to)’, *gé~geder* ‘can (Juba Arabic loanword)’.

5. IMPERFECTIVE AND FOCUS

Bari verbs have a “focus” form marked by word-initial L (homophonous with the imperfective conjoint form), which is used to focalize an argument or an adjunct (i.e., not the verb or the sentence). Although the definition of *focus* varies in the literature, two types of focus are generally distinguished: ‘information focus’ (information newly introduced into the discourse, including interrogative words and their answers) and “contrastive focus” (new information that contrasts with other potential options). In Bari, the focus form of the verb primarily encodes contrastive focus, but it can also be used in contrastive Wh-questions and their answers.

5.1 ‘Focus’ forms and focus particles

In ‘focus’ clauses, which involve the ‘focus’ form of the verb, TAM distinctions (such as preterit, imperfective, and potential) are completely neutralized. The verb form contrastively focalizes post-verbal elements, such as adverbials, in intransitive/detransitive clauses (17). Since the focus position is directly after the verb, these verb forms generally do not occur clause-finally, as shown in (18).

- (17) a. *lɔpɛŋ dot-ó í baŋ.*
 3SG FOC:sleep-INTR in house
 ‘He slept/is sleeping/can sleep [at home]_{FOC}
 (not in the hospital, etc.).’
- b. *súkúri der-á í mudá.*
 chicken FOC:cook-PASS in pot
 ‘The chicken was/is/can be cooked [in the pot]_{FOC}
 (not in the saucepan, etc., by someone).’ (passive)
- c. *súkúri der-já í mudá.*
 chicken FOC:cook-SUF in pot
 ‘The chicken cooked/is cooking/can cook [in the pot]_{FOC}
 (not in the saucepan, etc., not implying an agent).’ (anticausative)
- d. *nân der-já pérok lɪŋ.*
 1SG FOC.cook-SUF day.PL all
 ‘I cooked/cook/can cook [every day]_{FOC}
 (not sometimes, etc.).’ (antipassive)
- (18) a. **lɔpɛŋ dot-ó.*
 3SG FOC:sleep-INTR
- b. **súkúri der-á.*
 chicken FOC:cook-PASS

- c. **súkúri* *der-já.*
 chicken FOC:cook-SUF
- d. **nân* *der-já.*
 1SG FOC:cook-SUF

There is a single exception to this constraint where this form occurs in subject focus constructions (19) accompanied by the subject focus particle *lo* (M) or *na* (F), derived from the relative markers. In these cases, the focus verb form can occur clause-finally (but can also take post-verbal adverbials and objects).¹⁵

- (19) a. *lopén lo dot-ó.*
 3SG FOC.M FOC:sleep-INTR
 ‘[He]_{FOC} slept/is sleeping/can sleep.’
- b. *súkúri na der-á.*
 chicken FOC.F FOC:cook-PASS
 ‘[The chicken]_{FOC} was/is/can be cooked (by someone).’ (passive)
- c. *súkúri na der-já (í mudá).*
 chicken FOC.F FOC:cook-SUF (in pot)
 ‘[The chicken]_{FOC} cooked/is cooking/can cook (in the pot).’
 (anticausative)
- d. *nân lo der-já (súkuri).*
 1SG FOC.M FOC:cook-SUF (chicken)
 ‘[I]_{FOC} cooked/cook/can cook (chicken).’ (transitive, antipassive)

5.2 Intransitive and stative transitive verbs

In intransitive clauses, Bari uses two verbal forms to encode imperfective (word-initial L ‘IPFV.CJ’ (FOC) and reduplicated ‘IPFV.DJ’) in clause-medial position, as mentioned in Section 4.2. These two forms exhibit a complementary distribution according to the scope of focus, which we here illustrate in the context of a corresponding Wh-question, i.e., information focus (with or without contrast). The form with word-initial L tone (‘IPFV.CJ/FOC’) encodes post-verbal focus (20a) and subject focus (20b), while the reduplicated form (‘IPFV.DJ’) is used in the contexts of verb focus (20c) and sentence focus (20d).

¹⁵ Note that, in (8), the sentence needs an overt resumptive pronoun. If the subject focus particle is used, the sentence cannot have this resumptive pronoun, i.e., *súkúri ná, nân lo der-já (*ne)* ‘As for the chicken, it is I who cooked it.’

- (20) a. Q. *lɔpɛŋ dot-ó jâ?*
 3SG IPFV.CJ/FOC:sleep-INTR where
 ‘[Where]_{FOC} is he sleeping (/did he sleep/can he sleep)?’
- A1. *lɔpɛŋ dot-ó í baŋ.*
 3SG IPFV.CJ/FOC:sleep-INTR in house
 A2. *#lɔpɛŋ dó~dót-o í baŋ.*
 3SG IPFV.DJ~sleep-INTR in house
 ‘He is sleeping (/slept/can sleep) [in the house]_{FOC}.’
- b. Q. *ŋâ lɔ dot-ó í baŋ?*
 who FOC.M FOC:sleep-INTR in house
 ‘[Who]_{FOC} is sleeping (/slept/can sleep) in the house?’
- A. *lɔpɛŋ lɔ dot-ó í baŋ.*
 3SG FOC.M FOC:sleep-INTR in house
 ‘[He]_{FOC} is sleeping (/slept/can sleep) in the house.’
- c. Q. *lɔpɛŋ kɔn-djâ nɔ́ í baŋ?*
 3SG IPFV.CJ/FOC:do-SUF what in house
 ‘What is he doing in the house?’¹⁶
- A1. *#lɔpɛŋ dot-ó í baŋ.*
 3SG IPFV.CJ/FOC:sleep-INTR in house
 A2. *lɔpɛŋ dó~dót-o í baŋ.*
 3SG IPFV.DJ~sleep-INTR in house
 ‘He is [sleeping]_{FOC} in the house.’¹⁷
- d. Q. *kuɔjâ a nɔ́?*
 matter COP what
 ‘What is the matter? / What’s up?’
- A1. *#ŋótú lèlê dot-ó í baŋ.*
 man certain.M IPFV.CJ/FOC~sleep-INTR in house
 A2. *ŋótú lèlê dó~dót-o í baŋ.*
 man certain.M IPFV.DJ~sleep-INTR in house
 ‘[Someone is sleeping in the house]_{FOC}.’

Note that (20a, b) are TAM-neutral like (17) and (19), but here we only give the imperfective meaning for comparison. As such, (20a, b) A2 can also encode

¹⁶ Note that the ‘IPFV.CJ/FOC’ form is used here because it is followed by an interrogative word *nɔ́* ‘what’.

¹⁷ Since the reduplicated verb form is homophonous with ‘*ɔt*’, (20c) A2 can signal ‘he can sleep’ in some other contexts. The same applies to (20d) A2.

potential or preterit, but then it implies a contrast ('Where [in contrast to the other places] can/did he sleep?'). The imperfective clauses lack this contrastive vs. non-contrastive interrogative dichotomy.

The reduplicated form in (20c,d) should not be regarded as a dedicated "verb focus" or "sentence focus" form, but these interpretations derive from the rather information structure-neutral nature of this form. Note that the same form is used even with post-verbal focus when it encodes potential (21), and that the same form cannot be used with other TAM forms, such as preterit (22).

- (21) Q. *lɔpɛŋ dɔ~dɔt-o jâ?*
 3SG POT~sleep-INTR where
 '[Where]_{FOC} can/may he sleep?'
- A. *lɔpɛŋ dɔ~dɔt-o í baŋ.*
 3SG POT~sleep-INTR in house
 'He can/may sleep [in the house]_{FOC}.'

- (22) Q. *kuɽjâ a jɔ?*
 matter COP what
 'What is the matter? / What's up?'
- A1. *lɔpɛŋ a gwúd-djâ ŋurɔ.*
 3SG PRET hit-SUF child
 '[He hit a child]_{FOC}.'
- A2. *#lɔpɛŋ gwú~gwúd-djâ ŋurɔ.*
 3SG IPFV.DJ/POT-hit-SUF child
 (intended: 'He hit a child', interpreted: 'He can hit/is hitting a child')

In parallel with intransitive verbs, stative verbs in the focus form encode post-verbal (object) focus (23b) and the (suffix-less) reduplicated form is used as the default imperfective marking (23a). As such, (23b) is used to answer the question 'What do you like?' (object focus), while (23a) is used to answer questions such as 'What is your opinion about chicken?' (verb focus) and 'What is the matter?' (sentence focus).

- (23) a. *nân ja~jár súkuri.*¹⁸
 1SG IPFV.CJ/POT-like chicken
 'I like/may like chicken.' (imperfective or potential)

¹⁸ Stative verbs in the suffixed reduplicated form (e.g., *jár~jár-jû*) seem to have only the potential reading (see Section 4.1).

- b. *nân* *ɲar-ʃô* *súkúri*.
 1SG FOC:like-SUF chicken
 ‘I liked/like/may like [chicken]_{FOC}.’ (object focus)

5.3 Dynamic transitive verbs

Focus marking for dynamic transitive verbs stands in contrast to other verb types in two ways. First, they have two options for marking contrastive focus - adverb focus (24a) without a suffix and object focus (24b) with a suffix - apart from the subject focus (24c). The transitive adverb focus construction requires a definite object, which can be the zero pronoun (25).

- (24) a. *nân* *der* *súkúri* *ná* *kɔ́ríɾi*.
 1SG FOC:cook chicken DEF.SG.F night
 ‘I cooked/cook/can cook the chicken [at night]_{FOC} (not in the morning, etc.).’
- b. *nân* *der-ʃá* *súkuri* *ná* *(kɔ́ríɾi)*.
 1SG FOC:cook-SUF chicken DEF.SG.F (night)
 ‘I cooked/cook/can cook [the chicken]_{FOC} (not fish, etc.) at night.’
- c. *nân* *lɔ* *der-ʃá* *súkuri*.
 1SG FOC.M FOC:cook-SUF chicken
 ‘[I]_{FOC} cooked chicken.’
- (25) *nân* *der* *Ø* *kɔ́ríɾi*.
 1SG FOC:cook 3.NH night
 ‘I cooked/cook/can cook it [at night]_{FOC} (not in the morning, etc.).’

The object focus form (24b) is homophonous to the active “IPFV.CJ” form (26) and the anticausative/antipassive focus form (17c,d).

- (26) *nân* *der-ʃá* *súkuri* *ná* *(kɔ́ríɾi)*.
 1SG IPFV.CJ:cook-SUF chicken DEF.SG.F (night)
 ‘I am cooking/cook the chicken (at night).’ (non-focus imperfective)

Thus, second, while the focus form encodes both contrastive (post-verb) focus and imperfective aspect as with the intransitive/stative verbs, the reduplicated form of dynamic transitive verbs no longer encodes imperfective (see Table 1). As such, (26) is the only possible answer to any imperfective question (except for the contrastive subject focus), that is, *What are you cooking?* (object focus), *What are you doing (with the chicken)?* (verb focus), *What is the matter?* (sentence focus), and so forth.

This imperfective construction never encodes post-verb focus anymore. This observation is based on the fact that, as seen in example (8), reproduced below, the imperfective verb form must be followed by a resumptive pronoun for the topicalized (left-dislocated) object, i.e., by a constituent not in focus. In other words, Bari has created a new “imperfective” category for the dynamic transitive verbs from the focus form. The correlation of TAM and argument focus markings are summarized in Table 2.

- (8') *súkúri ná, nân der-ǵá ǵe.*
 chicken DEF.SG.F 1SG IPFV.CJ:cook-SUF 3SG
 ‘The chicken, I am cooking it.’

Table 2: Correlation of TAM and argument focus markings

	[-focus]	[+focus]
‘cooked’	<i>a dér(-ǵá)</i> ‘PRET’	<i>dér-ǵá</i> ‘FOC’
‘can cook’	<i>dẽ~dér</i> ‘POT’	<i>dér-ǵá</i> ‘FOC’
‘is cooking’	<i>dér-ǵá</i> ‘IPFV.CJ’	<i>dér-ǵá</i> ‘FOC’

We can assume that this development is related to the TAM-neutral nature of the ‘focus’ verb form: since the reduplicated form of the dynamic transitive verbs lacks the imperfective reading (‘present perfective paradox’), the gap was filled by the functional expansion of the ‘focus’ form.¹⁹

5.4 Excursus: Progressive and frequentative

As explained above, the ‘word-initial L’ form shows a high degree of ambiguity between imperfectivity and focus (especially with dynamic transitive verbs). This section introduces two other strategies to code imperfectivity to resolve this problem for the sake of descriptive adequacy.

The first strategy is to use a locative copula agreeing with the subject in gender and number, which always encodes progressive aspect, as shown in (27) and (28).²⁰ The copula is followed by the CJ/DJ imperfective form.

¹⁹ In Bantu languages, the CJ/DJ alternation is most often attested with the progressive aspect being associated with the DJ form, but the DJ form is derived from a ‘predicate focus’ form, unlike in Bari (Hyman and Watters 1984, Güldemann 2003). In other words, although Bari shares basic CJ/DJ features with Bantu languages, the trigger of the grammatical change is different (i.e., Bantu: predicate focus > DJ progressive, Bari: post-verbal focus > CJ imperfective). I thank Daisuke Shinagawa for bringing this fact to my attention.

²⁰ Remember that subject focus uses the particles *lɔ/na* (19) which are homophonous with the singular form of the proximate copula (see also Nakao 2024). However, they differ in the plural form (PL subject focus *lɔ/na* vs. PL progressive *kulɔ/kunɛ*).

- (27) a. *nân lɔ/na* *der-ja* *súkuri*.
 1SG COP.PROX.SG.M/F IPFV.CJ:cook-SUF chicken
 ‘I am cooking chicken (here).’
- b. *nân ɲilɔ/ɲina* *der-ja* *súkuri*.
 1SG COP.MED.SG.M/F IPFV.CJ:cook-SUF chicken
 ‘I am cooking chicken (near you).’
- c. *ɲé lû/nû* *der-ja* *súkuri*.
 3SG COP.DIST.M/F IPFV.CJ:cook-SUF chicken
 ‘He/she is cooking chicken (over there).’
- (28) *nân lɔ/na* *dé~der-ja*.
 1SG COP.PROX.SG.M/F IPFV.DJ~cook-SUF
 ‘I am cooking (here).’

These copulas are demonstrative predicates (Killian 2022) that need to be followed by a locative adverb (29). In the grammaticalized usage in (27) and (28), the deictic meaning of the copula is retained.

- (29) a. *nân lɔ/na* *nî*.
 1SG COP.PROX.SG.M/F here
 ‘I am here.’
- b. *nân ɲilɔ/ɲina* *nî*.
 1SG COP.MED.SG.M/F here
 ‘I am here (near you).’
- c. *ɲé lû/nû* *ɲûn*.
 3SG COP.DIST.M/F there
 ‘He is over there.’

Another device for expressing an imperfective meaning is the frequentative form (with the habitual/repeated nature implied), which is encoded by reduplication and the LHL tone pattern exemplified in (30). This form seems to have no constraints regarding information structure and clause-finality and can be used in preterit clauses (31).

- (30) Imperfective
- a. *nân dé~dér-ja* *súkúri*.
 1SG FREQ~cook-SUF chicken
 ‘I habitually cook chicken.’

- b. *nân* *dē~dér-ja*.
1SG FREQ~cook-SUF
'I habitually cook.'
- c. *súkúri* *dē~dér-a*.
chicken FREQ~cook-PASS
'Chicken is habitually cooked.'

(31) Preterit (perfective)

- a. *nân* *a* *dē~dér-ja* *súkúri*.
1SG PRET FREQ~cook-SUF chicken
'I habitually cooked chicken.'
- b. *nân* *a* *dē~dêr*.
1SG PRET FREQ~cook
'I habitually cook it.'

6. OTHER CASES OF CJ/DJ-LIKE ALTERNATION AND THE DIACHRONIC PATH

This section introduces CJ/DJ-like alternations other than imperfective, namely, causative complement, relative, and sequential clauses.

6.1 Causative complements

The complement of a periphrastic causative construction beginning with the causative verb *tín* ('give') is also encoded by the 'focus' form, which, here again, requires a post-verbal element comparable to CJ constructions and is therefore glossed 'COMP.CJ'. However, this does not mean that the focus of the clause is post-verbal; thus, (32a) can be an answer to 'Who did he make cook meat?'

- (32) a. *lɔpɛŋ* *a* *tín* *póní* *dér-ja* *lókoré*.
3SG PRET give Poni COMP.CJ:cook-SUF meat
'He made Poni cook meat.'
- b. *lɔpɛŋ* *a* *tín* *póní* *dér-ja* *kɔríri*.
3SG PRET give Poni COMP.CJ:cook-SUF evening
'He made Poni cook in the evening.'
- c. **lɔpɛŋ* *a* *tín* *póní* *dér-ja*.
3SG PRET give Poni COMP.CJ:cook-SUF

To avoid an ungrammatical sentence with the verb in clause-final position (32c), the allative preposition *ɿ* 'to' plus the infinite verb form (with -CV) is used (33a). This construction is comparable to DJ constructions. Unlike the other DJ

constructions, it also works with an object (33b), although, according to our speaker, (32a), without *ɪ*, is more common.

- (33) a. *lɔpɛŋ a tɪn pɔní ɪ dɛr-ja.*
 3SG PRET give Poni to cook-SUF
 ‘He made Poni cook.’
- b. *lɔpɛŋ a tɪn pɔní ɪ dɛr-ja lókoré.*
 3SG PRET give Poni to cook-SUF meat
 ‘He made Poni cook meat.’

6.2 Relativization

Although we do not have enough data on relativization in Bari for the time being, Bari appears to require a special paradigm of verbs for relativization (glossed ‘REL.IPFV’) that slightly differs from those in main clauses.

When a transitive imperfective clause is relativized, subject relativization (34a) is encoded with the word-initial L (‘REL.IPFV.CJ’), while object relativization (34b) is encoded with a reduplicated verb form without the -CV suffix (‘REL.IPFV.OBJ’), which in main clauses always encodes potential (10b).

- (34) a. *ŋútú lɔgwɔn dɛr-ja kɪno*
 man(M) REL.M REL.IPFV.CJ:cook-SUF food(F)
 ‘a man who is cooking food’
- b. *kɪnó nágwɔn pɔní dɛ~dɛr*
 food(F) REL.F Poni REL.IPFV.OBJ-cook
 ‘food that Poni is cooking’

Imperfective, intransitive, and de-transitive verbs are encoded with reduplication and suffixation (‘REL.IPFV.DJ’) when they occur in clause-final position, as in (35).²¹ However, when they are followed by an adverbial element, two constructions (36, 37) are possible. Note that they encode information structure in the same way as in main clauses, i.e., verb focus = DJ and post-verbal focus = CJ (see Section 5.1).

- (35) a. *ŋútú lɔgwɔn dó~dót-o*
 man(M) REL.M REL.IPFV.DJ-sleep-INTR
 ‘a man who is sleeping’ (intransitive)

²¹ As in main clauses, the reduplicated suffixed form also encodes potential. In the case of transitive verbs, it exclusively encodes potential, e.g., *ŋútú lɔgwɔn dɛ~dɛr-ja kɪno* ‘a man who can cook food’.

- b. *ηότύ λόgwôn dé~der-ja*
 man(M) REL.M REL.IPFV.DJ~cook-SUF
 ‘a man who is cooking’ (antipassive)
- c. *κίpnό nágwôn dé~der-ja*
 food(F) REL.F REL.IPFV.DJ~cook-SUF
 ‘food that is cooking’ (anticausative)
- d. *κίpnό nágwôn dé~dér-a*
 food(F) REL.F REL.IPFV.DJ~cook-PASS
 ‘food that is being cooked (by someone)’ (passive)
- (36) a. *ηότύ λόgwôn dó~dót-o í baη.*
 man(M) REL.M REL.IPFV.DJ~sleep-INTR in house
 ‘a man who is [sleeping]_{FOC} in the house’ (intransitive)
- b. *ηότύ λόgwôn dé~der-ja í baη.*
 man(M) REL.M REL.IPFV.DJ~cook-SUF in house
 ‘a man who is [cooking]_{FOC} in the house’ (antipassive)
- (37) a. *ηότύ λόgwôn dot-ó í baη.*
 man(M) REL.M REL.IPFV.CJ:sleep-INTR in house
 ‘a man who is sleeping [in the house]_{FOC}’ (intransitive)
- b. *ηότύ λόgwôn der-já í baη.*
 man(M) REL.M REL.IPFV.CJ:cook-SUF in house
 ‘a man who is cooking [in the house]_{FOC}’ (antipassive)

6.3 Sequential construction

Bari has a dependent sequential construction which is preceded by a main clause and marked by the clause-initial particle *á* and the TAM-neutral ‘sequential’ form of the verb (38). It is almost homophonous with the ‘suffixed’ imperative form shown in (4) and (7).²²

The verb forms in this construction exhibit a unique CJ/DJ alternation, where the DJ construction requires an additional infinitive verb as a post-verbal element, as shown in (38e), while the CJ construction (38a-d) does not. Moreover, the DJ construction can take a direct object (38f), but it is not common (“sounding like a redundant repetition”), according to our speaker.

²² This construction also works for the intransitive/detransitive verbs, e.g., *dót-ô* ‘sleep’, whose sequential forms are CJ *dot-o-nî* and DJ *dot-o-nî dó-t-ô*.

- (38) a. *né a tō í baŋ, á ne der-j-î kínó.*
 3SG PRET go in house SEQ 3SG cook-SUF-SEQ food
 ‘He went home and (he) cooked food.’
- b. **... á ne der-j-î.*
 ... SEQ 3SG cook-SUF-SEQ
- c. *... á ne der-j-î *(né).*
 ... SEQ 3SG cook-SUF-SEQ 3SG
 ‘... and he cooked it.’
- d. *... á ne der-j-î burá.*
 ... SEQ 3SG cook-SUF-SEQ well
 ‘... and he cooked well.’
- e. *... á ne der-j-î dér-ja.*
 ... SEQ 3SG cook-SUF-SEQ cook-SUF
 ‘... and he cooked.’
- f. *?... á ne der-j-î dér-ja kínó (or dér-ja burá).*
 ... SEQ 3SG cook-SUF-SEQ cook-SUF food cook-SUF well
 ‘... and he cooked food / cooked well.’

As mentioned in Section 3.2, the homophonous imperative form (7) does not exhibit such an alternation, while the sequential construction lacks the suffix alternation based on the topicality of the object, like in the case of the imperfective. Although it is unclear how this alternation emerged at this point, the fact that the clause-final form (38e) is marked suggests that it developed after the CJ form.

6.4 Diachronic path

As summarized in Table 3, Bari has CJ/DJ-like alternations in a few clause types, where the verb takes the ‘word-initial L’ form as the CJ counterpart (except for sequential), while there is no coherence in the DJ counterparts.

Table 3: A summary of CJ/DJ-like alternations in Bari

	clause-medial	clause-final
imperfective	<i>der-já</i>	<i>dé~der-ja</i>
causative complement	<i>der-já</i>	<i>ɪ dér-ja</i>
relative (transitive)	<i>der-já</i>	<i>de~dér</i>
relative (non-transitive)	<i>der-já</i>	<i>dé~der-ja</i>
sequential	<i>der-j-î</i>	<i>der-j-î dér-ja</i>

Returning to the question raised in Section 3, of how these diachronically new alternations developed, we can propose that the change started with the functional expansion of the TAM-neutral ‘(post-verb) focus’ form as a new imperfective marker, which was restricted only in clause-medial position (as a ‘CJ’ form) due to its original function; it triggered ‘drag chain’ shift, where the ‘DJ’ form developed from various sources in an idiosyncratic manner.

To take the imperfective as an example, Bari started to employ the ‘(post-verbal) focus’ form for the dynamic transitive as an imperfective form, as shown in Figure 1 (b), since the reduplicated form cannot signal it due to the ‘present perfective paradox’. However, this form could not be used in a clause-final position due to its historical origin. The gap was then filled by the reinterpretation of the reduplicated form as imperfective (and the bleaching of the ‘potential’ meaning), which in turn triggered the use of an auxiliary verb for the dedicated potential form in clause-final position, as shown in Figure 1 (c). The fact that the reduplicated form can still be interpreted as potential (see Section 4.2) seems to suggest that this change occurred more recently.

(a) old stage (reconstructed)

	Clause-medial	Clause-final
post-verb focus	<i>der-já</i>	_____
potential (non-past)	<i>dé~der-ja</i>	<i>dé~der-ja</i>

↓

(b) middle stage (reconstructed)

	Clause-medial	Clause-final
post-verb focus	<i>der-já</i>	_____
imperfective	<i>der-já</i>	_____
potential	<i>dé~der-ja</i>	<i>dé~der-ja</i>

↓

(c) new/current stage

	Clause-medial	Clause-final
post-verb focus	<i>der-já</i>	_____
imperfective	<i>der-já</i>	<i>dé~der-ja</i>
potential	<i>dé~der-ja</i>	<i>(dé~der-ja) ← bú~bulá der-ja</i>

Figure 1. Emergence of the imperfective paradigm

7. CONCLUSION

This study reported the attestation of a CJ/DJ-like morphosyntactic alternation in a Nilo-Saharan language, Bari, and accounted for the emergence of this system. We concluded that the verb forms for several marked clause types (imperfective, sequential, causative complement, relative) in Bari first developed from the “(post-verb) focus” form of the verb, which required a post-verbal element, leading to the emergence of the imperfective CJ form. The development of the DJ counterparts followed it, leading to the inconsistent realization of the various verb forms in clause-final (DJ) position, as summarized in Figure 1.

An interesting aspect of the development of this alternation in Bari is that the emergence of a full-fledged imperfective CJ form corresponded to the disappearance of the original ‘focus’ semantics of the original form. This was demonstrated with example (8), in which the verbal form cannot be labeled “(post-verb) focus” since the post-verbal object is a resumptive pronoun for the topic (see Section 5.3).

There is a long-standing debate in Bantu linguistics on whether or not CJ/DJ encodes focus (Buell 2006, van der Wal and Hyman 2016), which could be approached from the perspective of the non-Bantu parallel phenomena presented in this study. At the very least, the Bari case supports maintaining the concept of CJ/DJ as distinct from the concept of focus, although they are diachronically and synchronically related.

Although we could not investigate it in this study, another potentially interesting point is that Central Sudanic Moru-Ma’di languages that are spoken close to Bari have a somewhat similar constraint on certain verb forms which require a post-verbal element (dubbed ‘termination constraint’ by Blackings and Fabb 2003; cf. Andersen 2006). Although Bari (together with the closely related languages Kakwa, Mandari, Nyangbara, Kuku, Pojulu, and Nyepu) is an Eastern Nilotic language, it diverges from the rest of the branch (see also Nakao 2024), for which no such morphosyntactic alternation is reported. Further research might look at these facts in the light of language contact.

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Author's email address: agarbattii@gmail.com