

TEMPORAL REMOTENESS MARKERS IN BÙLÌ

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Abstract

This paper discusses temporal remoteness markers (TRMs) in Bùlì. I show that despite being optional, TRMs are crucially different from temporal adverbials. The paper argues that these markers should be considered to be tenses. It also discusses how the results of this paper raise important issues in the analysis of temporal marking in the Mabilia (Gur) languages in general.

Mabilia (Gur); Bùlì; tense; temporal remoteness; semantics; syntax

Gbánká dē à zōg ká nántà bāi ātē bà à wī āyēn temporal remoteness markers fēlīnē pō lā Bùlì pō. Mí dág-ság kámá āyēn ná àlì nántà bāi ātē bà à wī āyēn temporal adverbials lā dāā jááb yēŋ Bùlì pō. Gbánká āyāā pēlīm wiēn kámá āyēn nántà bālā chim ká wá-nāi ālé à dāg tám biik pō ātē bà à wī āyēn tense fēlīnē pō lā. Gbánká kpēglīm kámá àlì sinsaga nāi àlì nà määri ātē tì ming nántàná nná kírì chāgi biik sī ātē bà wī āyēn Mabilia (Mābiik) biisàná pō mēēnā.

Mabilia; Bùlì, tensi, biik-kirí; biik-nyēilā.

1. Introduction

The focus of this article will be temporal remoteness markers (TRMs)¹. In particular, those found in Bùlì, a Mabilia (Gur) language. I will argue that these markers should be considered to be tenses, since they restrict the reference time, as opposed to the event time. If this conclusion is correct, then we have discovered a new kind of temporal remoteness markers—TRMs distinct from previously studied instances of TRMs. Evidence for this analysis is provided by comparing the TRMs in Bùlì to the TRMs found in other languages, especially Medumba.

I will be giving an analysis of the morphemes (**pō:m**, **dīem**, **dā:m**) in example (1):

- (1) a. **Asibi pō:m dī:nì yēnní pō.**
Asibi CUR play house in
'Asibi played in the house'
- b. **Asibi dīem dī:nì yēnní pō.**
Asibi IMM play house in
'Asibi played in the house'
- c. **Asibi dā:m dī:nì yēnní pō.**
Asibi REM play house in
'Asibi played in the house'

They tend to indicate the degree of the pastness of a situation or event from the time of speech. I will gloss them as current past (CUR²) (1a), this is used to indicate that an event has occurred at some time before the speech time on the day of speaking. Immediate past (IMM) (1b), is used to show that an event has occurred yesterday. Remote past (REM) (1c) is used to show that an event has occurred at least two days prior to the day of speaking.

A number of things are worth pointing out here. First, TRMs are optional in Bùlì, in that not all finite clauses require them. In the absence of TRMs in clauses, temporal reference is computed based on the aspectual properties of the predicates.

¹ Unless otherwise stated, the data presented in the paper are mainly based on primary fieldwork in the language speaking area between January and February of 2019. As a native speaker, my intuitions were relied on as well.

² This is also called the Hodiernal (HOD) in the typological literature.

In an out-of-the-blue context, statives and imperfective/progressive sentences receive default present interpretations (2)-(3).

- (2)
- a. **Wà dʒiag.**
3SG. tired
'S/he is tired.'
 - b. **Wà sèbì ānsāwá.**
3SG. Know answer.DEF
'S/he knows the answer.'
 - c. **Wà kàlì yènní níŋ.**
3SG. sit house.DEF front
'S/he is sitting in front of the house.'
- (3)
- a. **Asibi à dī:nī.**
Asibi IMPF play
'Asibi plays/is playing.'
 - b. **Asibi bō-rō à dī:nī.**
Asibi BE-LOC IMPF play
'Asibi is playing'
 - c. **Wà à kārīm kù.**
3SG. IMPF read 3SG.
'S/he reads/is reading it.'
 - d. **Wà bō-rō à kārīm kù.**
3SG. BE-LOC IMPF read 3SG.
'S/he is reading it.'

These default present interpretations are not strong enough to clash with contradicting adverbials or contexts. Therefore, when a past reference time is made salient by an adverbial or a context, these sentences can receive past interpretations, as shown in (4).

- (4)
- a. **Wà dʒiag dīemwá.**
3SG. tired yesterday
'S/he was tired yesterday.'
 - b. **Asibi à dī:nī sōlīukúdē.**
Asibi IMPF play morning.DEF.DEM
'Asibi was playing this morning'
 - c. **Dīemwá, Asibi bō-rō à dī:nī.**
yesterday, Asibi BE-LOC IMPF play
'Asibi was playing yesterday'

Event predicates in the perfective³ receive either a past interpretation or one which is best translated into English as present perfect or past perfective, as shown in (5).

- (5)
- a. **Wà kārīm kù.**
3SG. read 3SG.
'S/he read/has read it'
 - b. **Wà dī:nī.**
3SG. play
'S/he played/has played'
 - c. **Wà pà:rì ŋmàzúkkú.**
3SG. reach top

³ I assume that the absence of an overt imperfective marker on event predicates corresponds to the presence of a null perfective marker.

‘He reached/has reached the top’

It is important to note that sentences without TRMs cannot be used to describe future eventualities (6). Instead, overt marking is required to describe future eventualities (7). An activity in the imperfective aspect is compatible with future-oriented adverbials (6c), but with a futurate interpretation, similar to the interpretation that the present tense has in English.

- (6) a. ***Wà dʒiag chúm.**
3SG. tired tomorrow
Intended: ‘S/he will be tired.’
- b. ***Wà dī:nì vònùŋ.**
3SG. play day.after.tomorrow
Intended: ‘S/he will played the day after tomorrow.’
- c. **Asibi à dī:nì vònùŋ.**
Asibi IMPF play day.after.tomorrow
‘Asibi plays the day after tomorrow’.
‘*Asibi will play the day after tomorrow.’
- (7) a. **Asibi àlì dī:nì yènní pō chúm.**
Asibi FUT play house in tomorrow
‘Asibi will play in the house tomorrow’
- b. **Wà àlì pā:rī ŋmàzúkkú.**
3SG. FUT reach top
‘S/he will reach the top’

Second, TRMs markers in Bùlì can only mark past remoteness and never future remoteness. These initial properties of the TRMs in Bùlì show intriguing similarities to the TRMs of Medumba (Mucha 2015) and at the same, show important differences as we shall see below.

The rest of the paper is organized as follows: I introduce the temporal remoteness markers in Section 2. In section 3, I outline the syntactic and semantic assumptions about the framework that will be used to account for the temporal remoteness markers. In section 4, I discuss the grammatical status of these morphemes and answer the following question: are the TRMs of Bùlì tenses or adverbials? I present a detailed investigation of their semantics in section 5 concluding from this that TRMs in Bùlì must always be interpreted relative to utterance time. Section 6 compares the distribution of TRMs in Bùlì and Medumba and argues that they differ significantly despite the initial similarity, and section 7 concludes the paper.

1 Temporal remoteness markers

Bùlì makes a three-level distinction in the past. The current past form in (8a) is used to describe events that occur within the day of the utterance but before the utterance time. As such, **pō:m** can co-occur with temporal adverbials that refer to a time within the day of utterance, such as *danka* ‘earlier today’ (8b) or *soluikude* ‘this morning’ (8c). However, **pō:m** is not compatible with a temporal adverbial referring to a time earlier than the day of utterance, such as *diemwa* ‘yesterday’ (8d) and *daamwa* ‘two days ago’ (8e).

- (8) a. **Asibi pō:m dī:nì yènní pō.**
Asibi CUR play house in
‘Asibi played in the house (earlier today)’
- b. **Asibi pō:m dī:nì yènní pō dáŋká.**
Asibi CUR play house in earlier
‘Asibi played in the house earlier today’
- c. **Asibi pō:m dī:nì yènní pō sòliukúdē.**

Asibi CUR play house in this.morning
 ‘Asibi played in the house this morning’

d. *Asibi pō:m dī:nì yènní pō diemwǎ.

Asibi CUR play house in yesterday

‘Asibi played in the house yesterday’

e. *Asibi pō:m dī:nì yènní pō dà:mwǎ.

Asibi CUR play house in two.days.ago

‘Asibi played in the house at least two days ago’

The immediate past form is used to describe events occurring one day prior to the day of utterance (9a). Therefore, the immediate past form can co-occur with a temporal adverbial referring to **diemwa** ‘yesterday’ (9b), but cannot co-occur with temporal adverbials referring to a time within the day of utterance (9c) or two days beforehand (9d).

(9) a. **Asibi dīem dī:nì yènní pō.**

Asibi IMM play house in

‘Asibi played in the house (a day before utterance time).’

b. **Asibi dīem dī:nì yènní pō diemwǎ.**

Asibi IMM play house in yesterday

‘Asibi played in the house yesterday.’

c. ***Asibi dīem dī:nì yènní pō sòliukúde.**

Asibi CUR play house in this.morning

‘Asibi played in the house this morning.’

d. ***Asibi dīem dī:nì yènní pō dà:mwǎ.**

Asibi CUR play house in two.days.ago

‘Asibi played in the house at least two days ago.’

Finally, the remote past is used to describe events that occurred at least two days before the day of utterance. This form is compatible with adverbials like ‘two days ago’ (10b) and ‘last week’ (10c), but not with adverbials that refer to a later time (10d).

(10) a. **Asibi dā:m dī:nì yènní pō.**

Asibi REM play house in

‘Asibi played in the house (at least two days before utterance time).’

b. **Asibi dā:m dī:nì yènní pō dà:mwǎ.**

Asibi REM play house in two.days.ago

‘Asibi played in the house two days ago’

c. **Asibi dā:m dī:nì yènní pō bàkwà-dī:-àlì-tā=m-lá.**

Asibi REM play house in last-week

‘Asibi played in the house last week.’

d. #**Asibi dā:m dī:nì yènní pō diemwǎ.**

Asibi REM play house in yesterday

‘Asibi played in the house yesterday’

For completeness, we should note that TRMs in Bùlì are compatible with imperfective/progressive aspect (11)-(12)⁴.

(11) a. **Asibi pō:m à dī:nì yènní pō.**

⁴ Like an imperfective, the imperfective marker of Bùlì can be used to express both the generic and the progressive as shown in the translations in (3a) and (3c). However, the language also has a different form for expressing the progressive as shown in (3b) and (3d) above, and also in (12). Sulemana (2021) argues that the progressive in Bùlì is a locative construction. For more on the progressive as a locative construction see (Sulemana 2021).

- Asibi CUR IMPF play house
in
‘Asibi was playing in the house.’
- b. **Asibi dīem à dī:nī yénní pō.**
Asibi IMM IMPF play house in
‘Asibi was playing in the house yesterday.’
- c. **Asibi dā:m à dī:nī yénní pō.**
Asibi REM IMPF play house in
‘Asibi was playing in the house at least two days ago.’
- (12) a. **Asibi pō:m bò-rò à dī:nī yénní pō.**
Asibi CUR BE-LOC IMPF play house in
‘Asibi was playing in the house.’
- b. **Asibi dīem bò-rò à dī:nī yénní pō.**
Asibi IMM BE-LOC IMPF play house in
‘Asibi was playing in the house yesterday.’
- c. **Asibi dā:m bò-rò à dī:nī yénní pō.**
Asibi REM BE-LOC IMPF play house in
‘Asibi was playing in the house at least two days ago.’

In sum, we have seen that in addition to the default past interpretation associated with event predicates, Bùlì also has TRMs that serve to further indicate the degree of the pastness of a situation or event. We called these temporal remoteness markers (TRMs) and glossed them as current past (CUR), immediate past (IMM) and remote past (REM). Before presenting a detailed account, I will introduce the theoretical assumptions I will be employing to discuss the data below.

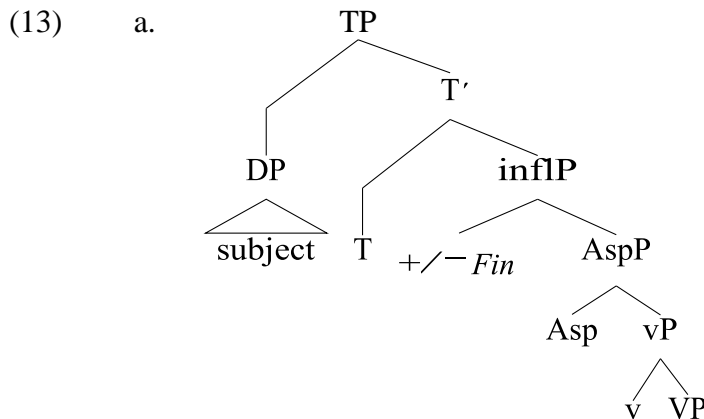
2 Preliminary Assumptions

In this section, I briefly outline my syntactic and semantic assumptions about the framework I will be using to account for temporal remoteness markers in Bùlì: namely, my assumptions about clause structure of Bùlì 3.1, and assumptions about semantics 3.2.

2.1 Syntactic assumptions

I will presuppose familiarity with various key works in Minimalist syntax (Chomsky 1995). Some of the formal assumptions made here are taken directly from these key works, while others are added based on language internal evidence from Bùlì. I will assume a structure along the lines of (13) for simple clauses in Bùlì⁵.

⁵ For more on this structure and how the various elements interact to derive the tonal patterns in the language see (Sulemana 2021, forthcoming).



I assume that every clause contains a Tense Phrase (TP), and is headed by T. I follow Sulemana (2021) in assuming that the complement of T is INFLP in Bùlì. The complement of this INFLP is an Aspect Phrase (AspP), headed by the aspectual features ‘imperfective’ (IMP), and ‘perfective’ (PERF). Next, the complement of this AspP is the (little) vP, which introduces the external argument. The complement of (little) vP is (big) VP and its arguments. I will be arguing that, when TRMs are present, they head the TP. In other words, they sit in the position of T. This is what the data in section 4 suggests.

2.2 Semantic assumptions

I follow standard assumptions in the syntax and semantics literature of tense and aspect that distinguish between (i) utterance time (UT), the speech time or the time at which the sentence is uttered; (ii) event time (ET), the time of the event; and (iii) reference time (RT), the time the speaker makes a claim about. These three distinct times can be made clear by the following English example:

(14) When we arrived at John’s house, he had already left yesterday.

In example (14), the UT is the time of speech, the ET is the time of John’s leaving, made clear by the adverbial *yesterday*, and the RT is the time introduced by the ‘when’ clause (the time of arrival at John’s house).

I also assume, following (Reichenbach 1947; Klein 1994) and subsequent works, that tense constrains the relation between UT and RT, and aspect constrains the relation between ET and RT. We can see these constraints at play in example (14), where the past tense situates RT before UT and the perfect aspect situates ET before RT. I follow a pronominal theory of tense, whereby tense is a special kind of pronoun with an index and is assigned a value by an assignment function g (Partee 1973; Kratzer 1998; Abusch 1997). Under this view, [past] and [present] are tense features that serve to place presuppositions on the temporal pronoun. The Tense head of TP is a temporal pronoun and receives its value from the assignment function g :

(15) a. $\llbracket T_7 \rrbracket^{g,i} = g(7)$

b. $\llbracket PST \rrbracket^{g,i} = [\lambda t: t < t_i. t]$

The feature [PST] introduces the presupposition that the RT denoted by T_7 is located before the UT t_i . This concludes the brief background on the terminology

I will be using to describe the Bùlì data. The following section considers the syntax of TRMs.

3 On the syntax of TRMs

In this section, I will examine in detail the grammatical status of the TRMs and attempt to answer the following question: are TRMs in Bùlì tenses or temporal adverbials? I will argue based on their syntax and semantics that these markers should be considered to be tenses, since they are located in the clausal spine, where tense has been argued to occupy, and also they restrict the reference time of the sentence, as opposed to the event time.

An important question regarding these TRMs is whether they function as grammatical tense or temporal adverbs. I will argue that despite being optional, these TRMs instantiate tense, which differentiates them from temporal adverbs. In what follows, I present arguments that illustrate the differences between TRMs and temporal adverbs in Bùlì.

In the following paragraphs we will consider whether TRMs in Bùlì should be analyzed as adverbials. There are two reasons why this might be considered a reasonable approach: i) TRMs are optional; and ii) two of the TRMs resemble adverbials and are possibly derived from them (16).

- (16) a. **Asibi d̀i:ǹi ỳenǹi p̀o diemwǎ.**
 Asibi play house in yesterday
 ‘Asibi played in the house yesterday.’
 b. **Asibi d̀i:ǹi ỳenǹi p̀o d̀a:mwǎ.**
 Asibi play house in two.days.ago
 ‘Asibi played in the house yesterday.’

The immediate and remote past markers, **d̀iem** and **d̀a:m**, have identical first syllables to the adverbials, **d̀iemwǎ** ‘yesterday’ and **d̀a:mwǎ** ‘two days ago’, respectively. The fact that there is no interpretable difference between the immediate past marker and the adverbial ‘yesterday’ further supports an analysis which would consider both of them as adverbials.

D̀a:m and **d̀a:mwǎ**, however, do have some interpretable differences: while **d̀a:m** can mark indefinite past, **d̀a:mwǎ** marks exactly the second day from the day of the utterance. A context that makes this distinction clear is given below from (17)-(19): while both **d̀a:m** and **d̀a:mwǎ** are acceptable temporal markers in the context in (17), only **d̀a:m**, the remote past is acceptable in the contexts in (18) and (19).

(17) *Context: Asibi played two days ago. Asouk says:*

- a. **Asibi d̀a:m d̀i:ǹi ỳenǹi p̀o.**
 Asibi REM play house in
 ‘Asibi played in the house.’
 b. **Asibi d̀i:ǹi ỳenǹi p̀o d̀a:mwǎ.**
 Asibi play house in two.days.ago
 ‘Asibi played in the house two days ago.’

(18) *Context: Asibi played a week ago. Asouk says:*

- a. **Asibi d̀a:m d̀i:ǹi ỳenǹi p̀o.**
 Asibi REM play house in
 ‘Asibi played in the house.’
 b. **#Asibi d̀i:ǹi ỳenǹi p̀o d̀a:mwǎ.**
 Asibi play house in two.days.ago
 ‘Asibi played in the house two days ago.’

(19) *Context: Asibi played a month/year ago. Asouk says:*

- a. **Asibi dā:m dī:nì yènní pō.**
 Asibi REM play house in
 ‘Asibi played in the house.’
- b. #**Asibi dī:nì yènní pō dā:mwǎ.**
 Asibi play house in two.days.ago
 ‘Asibi played in the house two days ago.’

Generally, adverbials in Bùlì can be combined felicitously with TRMs, although there is a slight sense of redundancy when this occurs especially in (20a)-(20b).

- (20) a. **Asibi dīem dī:nì dīemwǎ.**
 Asibi IMM play yesterday
 ‘Asibi played yesterday.’
- b. **Asibi pō:m dī:nì dāṅká.**
 Asibi CUR play earlier.today
 ‘Asibi played earlier today.’
- c. **Asibi dā:m dī:nì dā:mwǎ.**
 Asibi REM play two.days.ago
 ‘Asibi played two days ago.’

As is typical for temporal adverbials cross-linguistically, adverbials like **dīemwǎ** and **dā:mwǎ** can only occur at the periphery of the sentence, in either initial or final position. They are banned from TP internal positions, as shown in example (21).

- (21) a. ***Asibi dīemwǎ dī:nì.**
 Asibi yesterday play
 ‘Asibi played yesterday.’
- b. ***Asibi dā:mwǎ dī:nì.**
 Asibi two.days.ago play
 ‘Asibi played two days ago.’
- c. ***Asibi dāṅká dī:nì.**
 Asibi earlier.today play
 ‘Asibi played earlier today.’

TRMs, on the other hand, have the opposite distribution, as they must occur internal to TP.

- (22) a. ***Pō:m Asibi dī:nì.**
 CUR Asibi play
 Intended: ‘Asibi played earlier.’
- b. ***Asibi dī:nì pō:m.**
 Asibi play CUR
 Intended: ‘Asibi played earlier.’
- (23) a. ***Dīem Asibi dī:nì.**
 IMM Asibi play
 Intended: ‘Asibi played earlier.’
- b. ***Asibi dī:nì dīem.**
 Asibi play IMM
 Intended: ‘Asibi played yesterday.’
- (24) a. ***Dā:m Asibi dī:nì.**
 REM Asibi play
 Intended: ‘Asibi played at least two days ago.’
- b. ***Asibi dī:nì dā:m.**
 Asibi play REM
 Intended: ‘Asibi played at least two days ago.’

Another difference between adverbials and TRMs in Bùlì is that adverbials, but not TRMs, can be conjoined with other adverbials (25).

- (25) a. **Asibi d̄i:n̄i d̄iemwǎ àlì dà:mwǎ.**
Asibi play yesterday CONJ two.days.ago
'Asibi played yesterday and two days ago.'
- b. ***Asibi d̄iem àlì d̄ā:m d̄i:n̄i.**
Asibi IMM CONJ REM play
Intended: 'Asibi played yesterday and at least two days ago.'

Additionally, adverbials differ from TRMs in that they can be moved to the left periphery, but TRMs cannot undergo this movement (26)-(27).

- (26) a. **Dàṅkǎ àtì Asibi d̄i:n̄i.**
earlier ATI Asibi play
'It was earlier that Asibi played.'
- b. ***Pō:m àtì Asibi d̄i:n̄i.**
earlier ATI Asibi play
Intended: 'It was earlier that Asibi played.'
- (27) a. **D̄iemwǎ àtì Asibi d̄i:n̄i.**
yesterday ATI Asibi play
'It was yesterday that Asibi played.'
- b. ***D̄iem àtì Asibi d̄i:n̄i.**
IMM ATI Asibi play
Intended: 'It was yesterday that Asibi played.'
- (28) a. **Dà:mwǎ àtì Asibi d̄i:n̄i.**
two.days.ago ATI Asibi play
'It was two days ago that Asibi played.'
- b. ***D̄ā:m àtì Asibi d̄i:n̄i.**
REM ATI Asibi play
Intended: 'It was at least two days ago that Asibi played.'

Adverbials can be used as fragment answers, whereas TRMs cannot, as shown in Table 1.

- (29) Question: When did Asibi play?

Table 1: Adverbials as fragment answers.

ANS	ADVERB	TRM
	Dà:mwǎ	*D̄ā:m
	D̄iemwǎ	*D̄iem
	Dàṅkǎ	*Pō:m

Table 1 shows that adverbials are perfectly fine when used as fragment answers to question (29) while the TRMs are not.

Another difference is that TRMs cannot be used in response to a *when* question (30), but the adverbials are perfectly fine as responses (31).

- (30) Question: when did Asibi play?
- a. **#Asibi d̄iem d̄i:n̄i.**
Asibi IMM play
'Asibi played yesterday.'
- b. **#Asibi d̄ā:m d̄i:n̄i.**
Asibi REM play
'Asibi played two days ago.'
- c. **#Asibi pō:m d̄i:n̄i.**
Asibi CUR play

‘Asibi played earlier today.’

- (31) Question: when did Asibi play?
- a. **Asibi d̄i:n̄i d̄iemwǎ.**
Asibi play yesterday
‘Asibi played yesterday.’
 - b. **Asibi d̄i:n̄i d̄à:mwǎ.**
Asibi play two.days.ago
‘Asibi played two days ago.’
 - c. **Asibi d̄i:n̄i d̄àṅkǎ.**
Asibi play earlier.today
‘Asibi played earlier today.’

Also, whereas adverbials can bear contrastive focus (32a), TRMs cannot (32b).

- (32) a. **Asibi d̄i:n̄i d̄iemwǎ àmā: Asouk d̄i:n̄i d̄à:mwǎ.**
Asibi play yesterday but Asouk play two.days.ago
‘Asibi played yesterday but Asouk played two days ago.’
- b. **#Asibi d̄iem d̄i:n̄i àmā: Asouk d̄ā:m d̄i:n̄i.**
Asibi IMM play but Asouk REM play
Intended: ‘Asibi played yesterday but Asouk played at least two days ago.’

Additionally, adverbials can be focused with **p̄i:n̄i** ‘only’, whereas TRMs cannot (33).

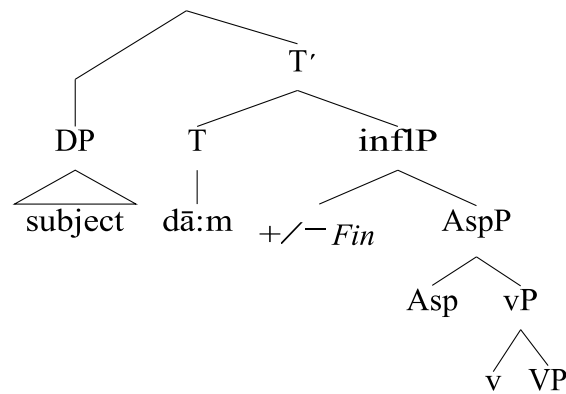
- (33) a. **Asibi d̄i:n̄i d̄iemwǎ p̄i:n̄i.**
Asibi play yesterday only
‘Asibi played only yesterday.’
- b. ***Asibi d̄iem p̄i:n̄i d̄i:n̄i.**
Asibi IMM only play
Intended: ‘Asibi played only yesterday.’

Finally, adverbials are allowed in possessive constructions (34a), but TRMs are not possible in these examples, as seen in (34b) below:

- (34) a. **Asibi kàr̄im d̄iemwǎ gb̄áṅka.**
Asibi read yesterday book
‘Asibi read yesterday’s book.’
- b. ***Asibi kàr̄im d̄iem gb̄áṅka.**
Asibi read yesterday book
‘Asibi read yesterday’s book.’

The distribution of TRMs and adverbials suggests that they are distinct syntactic elements. I assume that the TRMs are syntactic heads located in T in the clause as in (35), while adverbials are phrasal elements.

- (35) a. TP



This explains why TRMs are always preverbal, and cannot be conjoined in this position. It also explains why they cannot be focused, or used as fragment answers: since these operations involve phrasal movement into a specifier position in the left periphery. Since these are syntactic heads, they cannot undergo these operations. Adverbials, on the other hand, can undergo all these operations because they are phrases, which can be syntactically adjoined to TP, focused or used as fragment answers.

In this section, we have considered two possible analyses for TRMs: as grammatical tense or temporal adverbs. Based on their distribution, I concluded that they are syntactic heads, and thus occupy the T-node in the sentence. In the next section, we will consider data that further shed light on their semantics, which further support the tense analysis I am proposing for these elements.

4 On the semantics of TRMs

In the previous section, we saw that what we have been calling TRMs have distributions different from adverbials and must appear in the spine of the clause. A crucial question we have not yet considered is what is the exact function of these markers. In this section, I present data that will shed some light on the semantics of these markers. Based on their distribution, I will argue that these markers should be considered to be tenses, since they restrict the reference time, as opposed to the event time.

The following examples illustrate which TRM can be used in which specific context:

(36) Context: Asibi played in the morning. It is now afternoon and Asouk says:

- a. **Asibi pō:m dī:nì yènní pō.**
Asibi CUR play house in
'Asibi played in the house'
- b. **#Asibi dīem dī:nì yènní pō.**
Asibi IMM playhouse in
'Asibi played in the house.'
- c. **#Asibi dā:m dī:nì yènní pō.**
Asibi REM play house

in

'Asibi played in the house.'

(37) Context: Asibi played in the afternoon. It is now evening and Asouk says:

- a. **Asibi pō:m dī:nì yènní pō.**
Asibi CUR play house in

- ‘Asibi played in the house’
- b. **#Asibi dīem dī:nì yènnì pō.**
Asibi IMM play house in
‘Asibi played in the house.’
- c. **#Asibi dā:m dī:nì yènnì pō.**
Asibi REM play house in
‘Asibi played in the house.’
- (38) Context: Asibi played in the morning. It is now evening and Asouk says:
- a. **Asibi pō:m dī:nì yènnì pō.**
Asibi CUR play house in
‘Asibi played in the house.’
- b. **#Asibi dīem dī:nì yènnì pō.**
Asibi IMM play house in
‘Asibi played in the house.’
- c. **#Asibi dā:m dī:nì yènnì pō.**
Asibi REM play house in
‘Asibi played in the house.’
- (39) Context: Asibi played yesterday and Asouk say
- a. **#Asibi pō:m dī:nì yènnì pō.**
Asibi CUR play house in
‘Asibi played in the house.’
- b. **Asibi dīem dī:nì yènnì pō.**
Asibi IMM play house in
‘Asibi played in the house.’
- c. **#Asibi dā:m dī:nì yènnì pō.**
Asibi REM play house in
‘Asibi played in the house.’
- (40) Context: Asibi played two days ago and Asouk says:
- a. **#Asibi pō:m dī:nì yènnì pō.**
Asibi CUR play house in
‘Asibi played in the house.’
- b. **#Asibi dīem dī:nì yènnì pō.**
Asibi IMM play house in
‘Asibi played in the house.’
- c. **Asibi dā:m dī:nì yènnì pō.**
Asibi REM playhouse in
‘Asibi played in the house.’
- (41) Context: Asibi played a week ago and Asouk says:
- a. **#Asibi pō:m dī:nì yènnì pō.**
Asibi CUR playhouse in
‘Asibi played in the house.’
- b. **#Asibi dīem dī:nì yènnì pō.**
Asibi IMM play house in
‘Asibi played in the house.’
- c. **Asibi dā:m dī:nì yènnì pō.**
Asibi REM play house in
‘Asibi played in the house.’
- (42) Context: Asibi played a month/year ago and Asouk says:

- a. #**Asibi pō:m dī:nìyènní pō.**
Asibi CUR play house in
'Asibi played in the house.'
- b. #**Asibi dīem dī:nì yènní pō.**
Asibi IMM play house in
'Asibi played in the house.'
- c. **Asibi dā:m dī:nì yènní pō.**
Asibi REM play house in
'Asibi played in the house.'

From the above contexts, I will informally propose that **pō:m** restricts the reference time of the sentence to any time before the utterance time within the day of utterance, while **dīem** and **dā:m** restrict the reference time to one day before the utterance time and at least two days before the utterance time, respectively. With the background introduced in section 3.2 in mind, I propose that TRMs in Bùlì should be formally analyzed as past tense features, similar to (15b) above, but with an additional restriction in their presuppositions. Thus, I propose the following entries for the TRMs investigated here:

- (43) a. $\llbracket p\bar{o}:m \rrbracket^{s,i} = [\lambda t: t < t_i \text{ \& } t \text{ is within the day of } t_i.t]$
b. $\llbracket d\bar{i}em \rrbracket^{s,i} = [\lambda t: t < t_i \text{ \& } t \text{ is within a day before } t_i.t]$
c. $\llbracket d\bar{a}:m \rrbracket^{s,i} = [\lambda t: t < t_i \text{ \& } t \text{ is at least two days before } t_i.t]$

A fundamental difference between the past tenses of Bùlì and the past tense of a language like English is that the Bùlì past tense markers introduce additional restrictions in their presuppositions. In the following sections, I present a number of arguments to support the current analysis of TRMs in Bùlì.

The proposal presented here will become clearer in the next two sections when TRMs in Bùlì are compared to TRMs identified in other languages, specifically Medumba. As we shall see, the TRMs in Bùlì are different from those of Medumba (Mucha 2015) in that they must be interpreted relative to utterance time.

4.1 TRMs and utterance time

I argue here that TRMs resemble tenses in tense languages, and that TRMs are always interpreted relative to the utterance time. The evidence for this will come from the behavior of TRMs in complement clauses.

There are a number of possible combinations of a matrix TRM and an embedded TRM, but only two kinds of combinations are felicitous. Assuming that the TRMs are ordered on a scale of remoteness where **dā:m** is the most remote followed by **dīem** and then **pō:m**, generally, TRMs which are lower on the scale of remoteness cannot be embedded under TRMs which are higher on the scale of remoteness. The TRM in the embedded clause must either 'agree' with the matrix TRM or be more remote than the matrix marker.

Consider the examples in (44)-(46). In example (44), the embedded TRM 'agrees' with the matrix TRM.

- (44) a. **Asibi pō:m wìen āyīn Asouk pō:m dī:nì.**
Asibi CUR say C Asouk CUR play
'Asibi said that Asouk played earlier today.'
- b. **Asibi dīem wìen āyīn Asouk dīem dī:nì.**
Asibi IMM say C Asouk IMM play
'Asibi said that Asouk played yesterday.'
- c. **Asibi dā:m wìen āyīn Asouk dā:m dī:nì.**
Asibi REM say C Asouk REM play
'Asibi said that Asouk played at least two days ago.'

In example (45), the markers in the embedded clauses are further remote than their matrix counterparts.

- (45) a. **Asibi pō:m wien āyīn Asouk dīem dī:nì.**
Asibi CUR say C Asouk IMM play
'Asibi said (earlier today) that Asouk played (yesterday).'
- b. **Asibi pō:m wien āyīn Asouk dā:m dī:nì.**
Asibi CUR say C Asouk REM play
'Asibi said (earlier today) that Asouk played (at least two days ago).'
- c. **Asibi dīem wien āyīn Asouk dā:m dī:nì.**
Asibi REM say C Asouk REM play
'Asibi said (yesterday) that Asouk played (at least two days ago).'

The ungrammatical examples in (46) demonstrate the infelicitous combination where the embedded TRM is less remote than the matrix TRM.

- (46) a. ***Asibi dīem wien āyīn Asouk pō:m dī:nì.**
Asibi IMM say C Asouk CUR play
'Asibi said (yesterday) that Asouk played (earlier today).'
- b. ***Asibi dā:m wien āyīn Asouk dīem dī:nì.**
Asibi REM say C Asouk IMM play
'Asibi said (at least two days ago) that Asouk played (yesterday).'
- c. ***Asibi dā:m wien āyīn Asouk pō:m dī:nì.**
Asibi REM say C Asouk CUR play
'Asibi said (at least two days ago) that Asouk played (earlier today).'

One issue worth exploring is the interpretation of TRMs under attitude verbs. The phenomenon to explore is whether the Bùlì TRMs can have a sequence-of-tense (SOT) reading (Ogihara 1996; Enç 1987). The SOT reading is often described as the presence of a past (tense) form that does not correspond to a semantically interpretable tense. An example of this phenomenon in English is given in (47) below:

- (47) John said that Mary was pregnant.
- a. John said: 'Mary was pregnant' (shifted reading)
- b. John said: 'Mary is pregnant' (simultaneous reading)

In the shifted reading (47a), the tense of the embedded clause is relative to the time of John's saying. In other words, the time of Mary's pregnancy precedes the time of John's saying. In the simultaneous reading (47b), the time of Mary's pregnancy overlaps the time of John's saying.

The following data show that TRMs in Bùlì can receive simultaneous interpretations when embedded under report verbs. This behavior of TRMs in Bùlì indicates that they are similar to tenses in SOT languages like English. This is illustrated in (48)-(50), where the context questions induce simultaneous readings with the matrix event.

- (48) Context question (Adapted from Mucha (2015): You went to visit Mary a week ago, right? Did she tell you why she was sneezing that day?
- a. **Wà dā:m wien āyīn wà dā:m à wīag kāmā.**
3SG REM say C 3SG REM IMPF sick KAMA
'S/he said she was sick.'
- b. **Wà dā:m wien āyīn wà à wīag kāmā.**
3SG REM say C 3SG IMPF sick KAMA
'S/he said she was sick.'

- (49) Context question (Adapted from Mucha (2015)): You went to visit Mary this afternoon right? Did she tell you why she was sneezing earlier?
- a. **Wà pō:m wien āyīn wà pō:m à wīag kāmā.**
3SG CUR say C 3sg CUR IMPF sick KAMA
'S/he said she was sick.'
- b. **Wà dā:m wien āyīn wà à wīag kāmā.**
3SG REM say C 3SG IMPF sick KAMA
'S/he said she was sick'
- (50) Context question (Adapted from Mucha (2015)): You went to visit Mary yesterday, right? Did she tell you why she was sneezing yesterday?
- a. **Wà dīem wien āyīn wà dīem à wīag kāmā.**
3sg IMM say C 3sg IMM IMPF sick KAMA
'S/he said she was sick.'
- b. **Wà dīem wien āyīn wà à wīag kāmā.**
3sg IMM say C 3sg IMPF sick KAMA
'S/he said she was sick.'

The (a) examples in (48)-(50) contain a TRM in the embedded clause. The fact that these sentences are licit in these contexts is taken as evidence for the simultaneous reading of TRMs. Note that the bare embedded sentences in the (b) examples in (48)-(50) are licit in these contexts, as well.

The next question to explore is whether TRMs are interpreted relative to the utterance time or matrix evaluation time. I will argue that TRMs are always interpreted relative to the utterance time, in both matrix and embedded clauses. Consider the following context and judgments:

- (51) Context: Asouk played the day before yesterday, Asibi said this yesterday, and it is being reported today.
- a. #**Asibi dīem wien āyīn Asouk dīem dī:nì.**
Asibi IMM say C Asouk IMM play
'Asibi said that Asouk played.'
- b. **Asibi dīem wien āyīn Asouk dā:m dī:nì.**
Asibi IMM say C Asouk REM play
'Asibi said that Asouk played.'

The TRM, **dīem**, embedded under another **dīem**, doesn't backshift from the evaluation time of the matrix sentence (51a). Under the assumption that in embedded clauses TRMs backshift with respect to the matrix evaluation time, **dīem** embedded under another **dīem** should be felicitous in the context above. This is because it could backshift the matrix **dīem** to the day before. However, in this context (51a) is infelicitous and (51b) is used instead. This is not predicted under the assumption that TRMs can backshift the matrix evaluation time. In example (51b), back-shifting the matrix tense with **dā:m** should refer to *at least two days* before *yesterday* from *yesterday*. This would make using **dā:m** infelicitous in the context above, contrary to what we see. The fact that the use of **dā:m** is felicitous in this context suggests that it is interpreted relative to the utterance time: it is *at least two days* from the utterance time. I conclude that TRMs in Bùlì must always be interpreted relative to utterance time.

The fact that they are always interpreted relative to the matrix evaluation time explains the infelicity of sentences in (46) above, where the TRMs in the embedded clause occur later than the matrix TRMs. Example (46a), for instance, will mean that Asibi said 'yesterday' that Asouk played 'earlier today'. This places the event of playing in the future of the saying time. In other words, the embedded

TRM is in the future of the matrix TRM. This reading is, however, unavailable even when the TRMs ‘agree’ (52).

- (52) a. ***Asibi pō:m wien sòlùikǔ āyīn Asouk pō:m dī:nì kàntùinkǎ.**
 Asibi CUR say morning C Asouk CUR play afternoon
 ‘Asibi said in the morning that Asouk played in the afternoon’
- b. ***Asibi dā:m wien chikai-ali-taam-la po āyīn Asouk dā:m dī:nì**
 Asibi REM say last-month P C Asouk REM play
dā:mwǎ.
 2.days.ago
 ‘Asibi said last month that Asouk played two days ago.’

This reminds us of the Upper Limit Constraint (Abusch 1997; Heim 1994) in which there is no forward-shifted reading for embedded past tense. The following English sentences illustrate this point.

- (53) a. Mary believed that John was afraid during the last thunderstorm.
 (Back-shifted)
- b. *Mary believed that John was afraid during the next thunderstorm. (Forward-shifted)

I argue that the infelicity of (46) and (52) results from the Upper Limit Constraint where the embedded TRM is in the future of the matrix TRM. To express a later than matrix event (forward-shifted) meaning, an overt future marker⁶ is required, as in (54) below.

- (54) a. **Asibi dīem wien āyīn Asouk àlì pō:m dī:nì.**
 Asibi IMM say C Asouk FUT CUR play
 ‘Asibi said (yesterday) that Asouk would play (earlier today).’
- b. **Asibi dā:m wien āyīn Asouk dīem àlì dī:nì.**
 Asibi REM say C Asouk IMM FUT play
 ‘Asibi said (at least two days ago) that Asouk would play (yesterday).’
- c. **Asibi dā:m wien āyīn Asouk àlì pō:m dī:nì.**
 Asibi REM say C Asouk FUT CUR play
 ‘Asibi said (at least two days ago) that Asouk would play (earlier today).’

The upshot of this discussion is that the TRMs of Bùlì allow for SOT and must be interpreted relative to the utterance time in both matrix and embedded sentences. This makes TRMs in Bùlì similar to SOT languages like English. As in English, TRMs in Bùlì allow an earlier-than matrix event reading but not a later-than matrix event reading. It is important to note that this behavior of Bùlì TRMs makes them different from their Medumba counterparts.

In embedded attitude contexts, the TRMs in Medumba must be interpreted

⁶ In embedded clauses, with the right context and adverbials, as shown in (54) the TRMs can cooccur with **àlì**. Interestingly however, both **dā:m** and **dīem** occur to its left while **pō:m** occurs to its right. I do not currently have an explanation to why this is the case. Further investigations of these elements in embedded clauses will shed further light into their nature. I will suggest two solutions each not without further problems. First, the future **àlì** could be a modal which starts below T and then moves to T. In the embedded clauses under discussion, it remains in situ in the presence of **dā:m** and **dīem**. In the presence of **pō:m** it moves to adjoin to it. The question remains why it can only move in the presence of **pō:m**. An alternative proposal is to consider it possible to directly merge tense (TRMs) with the Future marker ignoring word order.

relative to the matrix evaluation time. This means that TRMs in Medumba allow for relative interpretations but not for simultaneous interpretations for matrix and embedded events (Mucha 2015). These facts are demonstrated in examples (55)-(56). In example (55), a near past marker is embedded under a remote past marker and is used to describe an event that occurred a few hours earlier last week. Thus, the embedded near past marker is interpreted relative to the matrix remote past marker. TRMs in Medumba also lack simultaneous interpretations, as shown by the infelicity of a remote past marker embedded under another remote past marker (56b). The bare form is used in this context (56c).

- (55) a. Context: When you visited your friend Louise last week, she told you that she had cooked a few hours earlier. Now, you want to describe what Louise said last week:
 b. **Louise ná' cúb mbə a fə ná cə?**
 Louise REM say that she near cook food
 'Louise said that she cooked.'
- (56) a. Context: You went to visit Louise and Marie a week ago, right? Did they tell you why they were in such a bad mood that day?
 b. **#Bú ná' cúb mbə bú ná' búut.**
 they REM say that they REM tired
 'They said that they were tired.'
 c. **Bú ná' cúb mbə bú búut.**
 they REM say that they tired
 'They said that they were tired.'

We can contrast these facts from Medumba with the interpretation of TRMs in Bùlì. As shown, the TRMs of Bùlì must be interpreted relative to utterance time and allow simultaneous interpretations between the matrix and embedded events. Consider (48a) above where a remote past marker embedded under another remote past marker allows for a simultaneous interpretation. In (46c), on the other hand, the current past under a remote past is infelicitous. Given that the opposite judgments are obtained in Medumba, as demonstrated above, we can see that TRMs in Bùlì are different in this way from those in Medumba.

The final point I wish to make here is that TRMs are pronominal. As we have just seen, TRMs in Bùlì must be interpreted relative to the utterance time, and thus allow simultaneous interpretations between the matrix and embedded events. This contrasts with TRMs in Medumba in embedded contexts, which must be interpreted relative to the matrix evaluation time, and thus allow for relative interpretations but not for simultaneous interpretations for matrix and embedded events. Mucha presents an example from Gíkūyū which Cable (2013) uses to argue that graded past has pronominal semantics. Recent past tenses embedded under more remote past are not possible in Gíkūyū (57b), and other Bantu languages, because the embedded tense can only be interpreted relative to the utterance time and not to the matrix evaluation time.

- (57) Context: Yesterday, your friend Mwangi said 'I danced today.' You'd like now to describe what he said yesterday. (Mucha 2015:137)
 a. **Mwangi araugire atī nīrainire.**
 Mwangi agrs-npst-say-prv that asrt-agrs-npst-dance-prv
 'Mwangi said that he danced.'
 b. ***Mwangi araugire atī nīrainire.**
 Mwangi agrs-npst-say-prv that asrt-agrs-cpst-dance-prv
 'Mwangi said that he danced.'

This is similar to what we observed for Bùlì. A current past embedded under a remote past is not possible. Example (46c) is repeated below as (58) for convenience. Based on their similarity to the Gíkūyū data, I assume that TRMs in

Bùlì are pronominal rather than quantificational as argued by Mucha (2015).

- (58) ***Asibi dā:m wien āyīn Asouk pō:m dī:nì.**
 Asibi REM say C Asouk cur play
 ‘Asibi said (at least two days ago) that Asouk played (earlier today).’

4.2 TRMs and event time

Providing conclusive evidence that some elements restrict reference time as opposed to event time is by no means easy. I will however base my claim on the diagnostics of (Cable 2013). For instance, the ‘when’ clause in (59) supplies the reference time of the main clause, which is the time of arrival, this morning. The event time, which is the time of departure, is yesterday. The fact that the current past form (59a) and not the immediate past form (59b) is used in the main clause is taken as evidence that the TRM tracks the reference time, which is this morning and is supplied by the ‘when’ clause, and not the event time. If it were the case that the TRM modified the event time, we would expect to see the immediate past marker, similar to what we saw in Gikūyū, contrary to facts (59b).

(59) Context (adapted): Asouk has been telling us for a while that he intends to travel to New York. This morning we went to his house to say goodbye, but he had already left yesterday.

- a. **Tì-àlì-pà:rì-wà-yènnì-sòlùkùdē-lá, àlì wà pō:m tà:n kāmā.**
 when-we-got-to-his-house-this-morning, ALI 3SG CUR go KAMA
 ‘When we got to his house, he had already left.’
- b. **#Tì-àlì-pà:rì-wà-yènnì-sòlùkùdē-lá, àlì wà dīem tà:n kāmā.**
 when-we-got-to-his-house-this-morning, ALI 3SG IMM go KAMA
 ‘When we got to his house, he had already left.’

In sum, since TRMs behave like a tense in the relevant respects, including relating reference time to utterance time, and also in showing the sequence of tense (SOT), I conclude that they should be analysed as past tenses. For completeness, and for the sake of cross-linguistic comparison, I also show below that the TRMs in Bùlì share some similarities and differences with those of Medumba.

5 TRMs in Bùlì and Medumba

Another language that has been recognized as having TRMs is Medumba. Reference to this has been made in the relevant examples thus far. In this section, I compare the distribution of TRMs in both languages and argue that they differ significantly despite the initial similarity. TRMs in some languages have been analyzed as having ‘presuppositional semantics’ similar to tense, although unlike tense they restrict event time as opposed to reference time. This is the analysis Cable (2013) provides for the TRMs of Gikūyū. As we have shown above, the evidence seems to suggest that TRMs restrict the reference time in Bùlì. Another option, explored by Mucha (2015) for Medumba, is that TRMs are Existential Quantifiers over time. In this section, I will test this hypothesis against empirical data. I argue that the TRMs in Bùlì are ‘optional pronominal tenses’ further supporting the analysis presented here.

The evidence for treating the TRMs in Medumba as quantificational comes from two observations: (i) TRMs are not allowed in situations where the speaker is ‘ignorant’ of the time of the situation; (ii) TRMs are optional even in situations where the speakers know the exact time of the situation.

The first observation of interest is that TRMs in Bùlì are not allowed in

situations where a speaker is ignorant of the time of the situation in accordance with the first observation made by Mucha for TRMs in Medumba, that TRMs are not allowed in contexts where the speaker is ignorant of the time of an event. The temporally unmarked form is used (60)-(62).

(60) Context (Abridged): Your friends bought a new TV but you don't know when. You report:

- a. **Bà dà TV.**
3PL buy tv
'They bought a television.'
- b. **#Bà pō:m dà TV.**
3PL CUR buy tv
'They bought a television.'
- c. **#Bà dīem dà TV.**
3PL IMM buy tv
'They bought a television.'
- d. **#Bà dā:m dà TV.**
3PL REM buy tv
'They bought a television.'

(61) Context (abridged): Your friends bought a new TV but you don't know when exactly they bought it. However, it must have been today or yesterday.

- a. **Bà dà TV.**
3PL buy tv
'They bought a television.'
- b. **#Bà pō:m dà TV.**
3PL CUR buy tv
'They bought a television.'
- c. **#Bà dīem dà TV.**
3PL IMM buy tv
'They bought a television.'
- d. **#Bà dā:m dà TV.**
3PL REM buy tv
'They bought a television.'

Also, a speaker must use the exact temporal marker in questions. A bare form is used when the speaker is ignorant of the time of the event. Consider (62).

(62) Context (Abridged): Your friend bought a new TV. You don't know when but you are curious so you ask:

- a. **Fí dá fi TVwá ká dà dīnā:?**
2SG buy 2SG tv.def Q day which
'When did you buy your television?'
- b. ***Fí pō:m dá fi TVwá ká dà dīnā:?**
2SG CUR buy 2SG tv.def Q day which
'When did you buy your television?'
- c. ***Fí dīem dá fi TVwá ká dà dīnā:?**
2SG IMM buy 2SG tv.def Q day which
'When did you buy your television?'
- d. ***Fí dā:m dá fi TVwá ká dà dīnā:?**
2SG REM buy 2SG tv.def Q day which
'When did you buy your television?'

The second observation is that TRMs in Bùlì are optional, even in situations where the speaker actually has the temporal information to motivate the use of a specific

temporal morpheme. This is again consistent with what Mucha observes for Medumba. This is demonstrated by the examples in (63), where both sentences are felicitous even though the context clearly states a past reference time which is suitable for the remote past.

(63) Context (adapted from Cable (2013)): You are visiting your friend Asouk. There is a new TV in his living room. You are not sure when he bought the TV but when you visited him a week ago, the TV was already there, so Asouk must have bought the TV more than a week ago. You report to your brother:

a. **Wà dā:m dà TV.**
3SG REM buy tv
'He bought a television.'

b. **Wà dà TV.**
3SG buy tv
'He bought a television.'

The fact that TRMs in Bùli are optional, even when the speaker has the necessary temporal information to use a specific TRM, in combination with the absence of Maximize Presupposition effects with these markers, could be used as evidence that TRMs in Bùli also have the quantificational meaning. However, upon further investigation, I conclude otherwise.

5.1 'Before' clauses

An argument Mucha advances for the quantificational analysis of Medumba TRMs comes from the inability of TRMs to occur in a *before*-clause (64). Following Sharvit (2014), who argues that past tense in Japanese is banned in *before*-clauses because they are quantificational, as opposed to the pronominal past tense in languages like English and Polish, Mucha concludes that past tense in Medumba is quantificational.

(64) Context question: Did Nana and Maurice meet each other at the party yesterday? (Mucha 2015:138)

a. **ŋga, Nana (fə) cǎ ká Maurice sə'ə.**
no, Nana NEAR leave before Maurice come
'No, Nana left before Maurice came.'

b. ***ŋga, Nana (fə) cǎ ká Maurice fə sə'ə.**
no, Nana NEAR leave before Maurice near come
Intended: 'No, Nana left before Maurice came.'

Just like in English and Polish, TRMs in *before*-clauses in Bùli are felicitous (65b), therefore, they cannot be quantificational.

(65) a. Context question: Did Asibi and Asouk meet each other at the party yesterday?

b. **Aya, Asibi dīem bàsì kāmā ālēgē-àtì Asouk (dīem) jàm**
no, Asibi IMM leave KAMA before Asouk IMM come
pā:tīwá.
party.

'No, Asibi left before Asouk came to the party.'

5.2 When questions

Another argument Mucha presents for a quantificational analysis of TRMs in Medumba is that, TRMs can be used to introduce times by way of answering when-questions. This is illustrated with the near and remote markers in (66).

- (66) Context question: When did Marie go to the market? (Mucha 2015:140)
- a. **Marie fə nɛ́n ntn.**
Marie NEAR go market
'Marie went to the market recently.'
 - b. **Marie ná nɛ́n ntn.**
'Marie REM go market'
'Marie went to the market a long time ago.'

As shown in example (30) above, TRMs in Bùlì cannot be used as responses to when questions. The context and judgments in example (67), demonstrate that TRMs cannot be quantificational.

- (67) Context question: When did Asouk go to the market?
- a. **#Asouk dīem chènḡ yābā.**
Asouk IMM go market
Intended: 'Asouk went to the market yesterday.'
 - b. **#Asouk dā:m chènḡ yābā.**
Asouk REM go market
Intended: 'Asouk went to the market some time ago.'

5.3 Contextual reference time

Also, an argument for the quantificational analysis of the TRMs in Medumba comes from the felicity of the past markers in out-of-the-blue contexts. Since these markers are quantificational and not presuppositional, they can be used in contexts where an appropriate reference time is not provided. On the contrary, presuppositional past markers should be infelicitous in these contexts. As shown in (68b) and (69) for Medumba and Bùlì respectively, in the same contexts, the TRMs of Medumba are felicitous with either the near past marker or the remote past marker, while the TRMs of Bùlì are infelicitous. These data further suggest that TRMs in Bùlì are not quantificational.

- (68) Context: You meet your friend and he asks you where Elise is. You are not sure, but you suspect: (Mucha 2015:139)
- a. **(Mu'dju) Elise fə nɛ́n Doula.**
maybe Elise NEAR go Doula
'Maybe Elise went to Doula.'
 - b. **(Mu'dju) Elise fə nɛ́n Doula.**
maybe Elise NEAR go Doula
'Maybe Elise went to Doula.'
- (69)
- a. **#Elise dīem chènḡ ka Doula.**
Elise IMM go KA Doula
'Elise went Doula.'
 - b. **#Elise dā:m chènḡ ka Doula.**
Elise REM go KA Doula
'Elise went Doula.'

Finally, as noted above, TRMs in Bùlì must be interpreted relative to the utterance time, and thus allow simultaneous interpretations between the matrix and embedded events. This contrasts with TRMs in Medumba in embedded contexts, which must be interpreted relative to the matrix evaluation time, and thus allow for relative interpretations but not for simultaneous interpretations for matrix and embedded events (Mucha 2015). If the distribution and interpretation of the TRMs in Mudemba, as observed by Mucha (2015), provide evidence for the

quantificational analysis of the Medumba TRMs, then the fact that in Bùlì they behave differently can be regarded as an argument against the quantificational analysis. Therefore, I propose that TRMs in Bùlì be analyzed as optional pronominal tenses rather than quantificational elements.

6 Conclusion

This article provides an analysis of Temporal Remoteness Markers in Bùlì. I have argued that the markers: pō:m, dīem, and dā:m should be analysed as past tenses, but unlike generic past tenses, they introduce additional restrictions in their presuppositions. These markers are contrasted with similar markers identified for other languages in particular Medumba (Mucha 2015) from these cross-linguistic comparisons, I draw the conclusion that TRMs in Bùlì are best analyzed as optional pronominal tenses.

A novel contribution of this paper has been to extend a formal account to the TRMs. The results of this paper raise important issues in the analysis of temporal marking in the Mabilia (Gur) languages in general. Many have noted the presence of temporal markers in the Mabilia languages, Dagbane (Bendor-Samuel 1971; Issah 2020), Dagaare (Bodomo 1997), Gurene (Atintono 2013) and Kusaal (Abubakari 2018; Musah 2018). Bodomo (1997), for instance, called these markers time depth and tense particles, and noted that although the particles *də* and *da* describe an action which has taken place within the last twenty-four hours in both Dagbane and Dagaare respectively, the Dagaare form can further express the meaning *sometime ago*, which can be taken as evidence that *da* in Dagaare express the neutral past. Also, Bendor-Samuel (1971) noted that some temporal markers in Dagbane can make future remoteness as well. As we have seen, none of the identified markers in Bùlì can be said to be the generic past or can mark future remoteness. My analysis thus makes precise what these markers mean in Bùlì and provides a window into the nature of cross-linguistic variation in the domain of temporal marking in Mabilia (Gur). Thus, more cross-linguistic work will be needed in order to obtain a comprehensive picture of temporal marking in the Mabilia (Gur).

I would like to end this discussion by noting that, although the focus was on temporal marking, there is much more to be investigated about aspect in Bùlì specifically and Mabilia more generally. I therefore leave this for future studies.

Abbreviations

2= second person, 3 = third person, asp = aspect, c = complementizer, conj = conjunction, cur = current, def = definite, fin = finite, fut = future, imm = immediate, impf = imperfective, infl = inflectional, loc = locative, neg = negation, pl = plural, pst = past, q = question, rel.pro = relative pronoun, rem = remote, sg = singular, tp = tense phrase

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