A TYPOLOGICAL ANALYSIS OF TEMPORAL ADVERBIAL CLAUSES IN KĨMŨTHAMBĨ

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ABSTRACT

This study explores the structure of Kĩmũthambĩ temporal adverbial clauses, a semantically diverse class of adverbial clauses that express temporal relationships in complex sentences. Existing studies on temporal adverbial clauses across different languages reveals varied realizations, a topic that has yet to be explored in Kĩmũthambĩ. Therefore, this study employs a typological analysis of the structure of temporal clauses in Kĩmũthambĩ, which focus on the nature of their left periphery guided by the Cartography of Syntax approach. Kĩmũthambĩ is a central Kenya Bantu language in central Kenya, classified within the larger Kikuyu -Kamba group (E50) as E531 Mwimbi- Muthambi. The data for this study were collected through elicitation from native Kĩmũthambĩ speakers and the author's intuition as a fluent speaker of the language. The findings establishes that Kĩmũthambĩ temporal adverbial clauses are introduced by free-standing subordinators that semantically encode the type of temporal relationship expressed. Some temporal clauses exhibited the absence of a subordinator, while others feature a morpheme that functions as a temporal marker. The positioning of temporal adverbial clauses is flexible, allowing them to appear either before or after the main clause with the exception of *until*-clauses, which displays specific restrictions. This study contributes to the descriptive understanding of Kĩmũthambĩ and enriches typological and comparative studies of focus constructions across various languages.

Key words: Adverbial clause, Kĩmũthambĩ, Left Periphery, Subordinator, Temporal clause

INTRODUCTION

Temporal adverbial clauses are subordinate clauses that provide temporal context for an event, situating it relative to the main clause. According to Thompson *et al*. (2007:243), these clauses form a category in which one clause can locate the situation expressed in another clause in time. In English, temporal adverbial clauses are introduced by adverbial subordinators such as 'after', 'before', 'until', 'since', 'when', 'while', 'before' (Kortman, 1996). These adverbial subordinators are significant in highlighting the temporal relation expressed by the temporal clause. However, Hetterle (2015: 106-107) postulates in addition to free-standing subordinators, languages may employ other mechanisms to indicate temporal clauses such as bound subordinators, derived verb forms and tense-aspect-modality (TAM) marking. This aligns with Ahn and Lee (2019), who emphasize that different languages employ various structural strategies to encode temporal relationships, further highlighting the complexity of temporal expressions.

Studies on temporal clauses indicate that temporal relations can exist in various forms. These temporal relations include simultaneity overlap 'when', simultaneity duration 'while' , anteriority 'after', posteriority 'before', terminus a quo 'since' and terminus ad quem 'until' (Cristofaro 2003: 159; Hetterle, 2015:47-48; Kortman,1996: 79-89). Zubair (2021) expands on this notion by discussing how different languages conceptualize and structure these temporal relations, providing valuable insights for typological studies. Therefore, this study explores the

diverse forms of temporal adverbial clauses in Kĩmũthambĩ and their structural characteristics. Given the complexity of temporal clauses, the present study specifically investigates 'when', 'while', 'after', 'before', 'until' and since temporal clauses. Additionally, the study analyses the left periphery of these temporal clauses in Kĩmũthambĩ to assess their compatibility with information structure aspects such as focalization and topicalization.

Furthermore, Cushing (2020) emphasizes the significance of examining the syntactic structure of temporal clauses in the context of Bantu languages, as it can reveal insights into their unique grammatical properties and the interplay between syntax and semantics. Incorporating these recent studies not only enriches the theoretical framework of this analysis but also situates it within current linguistic discourse on temporal adverbial clauses.

Research Methods

The study employs descriptive research design, which falls within the qualitative paradigm of research. The population for this study comprises all Kĩmũthambĩ complex sentences that containing temporal adverbial clauses. To select respondents, the study utilized purposive sampling focusing on native speakers of Kĩmũthambĩ from Mũthambĩ sub -county, where a significant number reside. . Five respondents participated in the narration exercise, with three narrating personal accounts and two recounting the "mute pear" story originally described by Chafe (1980) and referenced in Bellman (1982).

This approach facilitated the collection of naturally occurring data from spoken texts in authentic language use setting. The researcher recorded the respondents during these narration sessions, capturing their verbal expressions.

From both the personal accounts and the elicited pear stories, temporal adverbial clauses were identified and analysed. Additionally, the researcher used native speaker intuition to generate further sentences, enhancing the dataset. This method resonates with the findings of Guo and Wei (2020), who emphasize the importance of utilizing native speaker insights to enrich linguistic data collection. Moreover, incorporating the approach suggested by Chernova (2021), which advocates for the integration of narrative techniques in linguistic research, adds depth to the analysis of complex sentence structures. This study's methodology not only adheres to established qualitative research practices but also aligns with contemporary approaches to language data collection and analysis.

Results and Discussion
When- Temporal Clauses
'When' clauses generally imply that the event in main clause and the linked event in the subordinate clause overlap in their realization (Cristofaro 2003: 159). According to Diessel 2008: 470) *when*-clauses refer to a situation that can occur prior, posterior, or simultaneously to the situation expressed in the main clause. If the situation of the 'when' clause occurs prior or posterior to the situation in the main clause, there may be a short time interval between the two situations. but this time interval is irrelevant for the interpretation of the complex sentences and therefore the two situations are regarded as overlapping (Hetterle (2015: 47) states that *when-* clauses are not specific in the exact period, the extent of the temporal meaning is unspecified and subject to variation. *when-* clauses can therefore convey any reference of time and can also convey any time interval. In Dixon's (2009: 10) terms 'when' clauses refer to a duration of the event.

In Kĩmũthambĩ the adverbial subordinator *riria* 'when' marks a 'when' clause. The adverbial clause can either begin (1a) or follow the main clause as in (1b).

(1a) Rĩrĩa   u-   rĩ   mũo,   nĩ wega   gũ- kath- ag- a Ngaĩ

When 1SM- COP- alive, COP good   15- praise- HAB-FV God

'When you are alive, it is good to praise God'

(1b) Nĩ- wega gũ- kath- ag- a Ngaĩ   rĩrĩa ũ- rĩ   mũo

COP good 15- praise- HAB- FV God   when 1SM-COP alive

'It is good to praise God when you are alive'

Apart from being introduced by the subordinator *rĩrĩa,* Kĩmũthambĩ also manifests temporal when clauses that do not have a temporal subordinate marker introducing the temporal clause. The subordinate clause can also occur at the beginning or follow the main clause as in (2a) and (2b) respectively.

(2a) A-rũtwa   ba- kĩny- a   bũ-   tũ- rĩng- ĩr- e   thĩmũ

2-students 2SM- arrive- FV   2SM- 2OM- call- PFV- FV 9- phone

'when the students arrive, you call us'

(2b) Bũ- tũ- rĩng- ĩr- e   thĩmũ   a-rũtwa   ba- kĩny- a

2SM- OM- call- PFV- FV 9- Phone   2-students 2SM- arrive- FV

'When the students arrive, you call us'

The examples in (2) exemplify both a *when*-relation and *after*-relation meanings. In the sentences the event of 'calling' happens after that of 'arrival of students. However, it also refers to a point in time.

While -Temporal Clauses

These clauses denote the temporal relation of simultaneity. However, unlike the simultaneity overlap expressed in *when*- clauses, they indicate a simultaneity of duration (Kortmann,1996). *While*- clauses express situations of co-occurrence where the situation taking take place in the main clause and the temporal clause occur at same time within a particular duration of time (Dixon,2009:10; Hetterle, 2015:47).

In Kĩmũthambĩ 'while' clauses are realized by the presence of the morpheme *-ki-* in the subordinate clause as illustrated by (3) and (4)

(3)*A-gekũrũ ba-   ra- ĩnũk-   ĩr-   e*   *ba- kĩ- negen-   ag-   a*

    2-women 2SM- PST- go-home- PFV- 2SM- SIM- complain- IMPFV-
FV   FV

    'The women went home complaining'

(4) *A-jĩarĩ   no ba- cemanĩ- e   a-na   ba- kĩ- rĩj- ag-   a*

    1-Parents MOD   2SM- meet-   2-children 2SM- SIM- eat- IMPFV- FV
FV

    'The parents can meet while the children eat'.

The sentence indicates events that occur at the same time. In (3) 'the women complained as they went home' and in (4) 'the meeting should take place as the children are eating'. In sentence (4) the subjects of the clause are different as compared to (3) where the main clause and temporal clause share the same subject however the events denoted in both sentences occur at the same time.

Presence of *-ki-* in the temporal clause highlights the period within which the actions occur. In a similar analysis, Kihara (2017a) notes 'while' temporal clauses in Gĩkũyũ are indicated by *ke* marker which occurs in the temporal clause. Kihara identifies it as a simultaneous temporal marker and notes that though the marker captures the aspectual progression of events, the *ke*-marker cannot be analyzed as an aspectual marker but rather a temporal marker that identifies the clause as a temporal adverbial clause. Following Kihara's assertion, we note that *ki-* in Kĩmũthambĩ therefore helps indicate the temporal aspect in the simultaneous state of affairs expressed by the main and temporal clause.

Before- Temporal Clauses

Before- temporal clauses, are regarded as clauses of posteriority (Kortman, 1996: 84) indicate a situation that occurs prior to the one indicated in the main clause (Hetterle, 2015). In Kĩmũthambĩ they are realized by the presence of the subordinator *mbere* 'before' followed by the preposition *ya* 'of'. *Mbere* also has the prepositional meaning of 'in front'.

Sentence (5) indicates that the action of 'meeting' occurred before that of 'arriving home'. The *before*-clause can come after the main clause as in (5a) or be preposed as in (5b) however the verb in the main clause acquires the *nĩ-* focus marker.

(5a) *Tũ- ra- ceman- ĩr- ĩ- e nawe   mbele ya tũ- kĩny- a kwa-o mũ-jĩe*

    2SM-PST-meet- PFV-TR-FV him/her   before of 2SM- arrive- FV 3- POSS 3-home

    'We meet with him before we arrived at their home'

(5b) *mbele ya tũ- kĩny- a   kwa-o mũ-jĩe   nĩ- tũ- ra- ceman- ĩr- ĩ-e nawe*

    Before   of   2SM- arrive- FV 3.POSS 3- Foc 2SM-PST- meet- PFV- FV him/
home   her

    'Before we arrived at their home, we met with him/her'

According to Thompson *et al.* (2007; 247) *before-* clauses conceptually are negative from the point of view of the event in the main clause and as such languages may utilize the negative morpheme to express *before-* clauses. Sentence (6) shows a *before-* relation with the negative morpheme marker *–ta* in the subordinate clause. Realization of the negative prefix *–ta-* in the verb allows the clause to have a before sense.

(6) Tũ-   ta-   na-   kĩny- a   kw-ao   nĩ- tũ-   ceman- ĩr- ĩ- e nawe

       2SM-   NEG-   TNS-   arrive- FV   Foc- 2SM- meet- PFV- FV him/her

15.home

       'Before we arrived, we met with him/her'

Before clauses can also occur with word *amba* which translates to 'first' as in (7)

(7) amba ũ-   rĩ-   e   ũ-   ta-   na-   ũr-   a   ngũo

       First 1SM- eat- FV   1SM- NEG- TNS- wash- FV 10.clothes

       'First eat before you wash clothes'

After- temporal Clauses

The temporal anteriority 'after-relation' (Kortmann, 1996:85), encodes an event that happens after a prior one (Hetterle 2015). In after -relations two situations occur in a sequence with the dependent situation (*after-* clause) preceding the situation depicted in the main clause (Cristofaro 2003: 159). This is unlike 'before' constructions, where event in the dependent clause ('before' clause) follows that of the main clause in terms of time (Cristofaro 2003: 159). Just like the subordinator 'before' the main function of the 'after' subordinator is strictly temporal and often imply that the two situations follow each other immediately.

In Kĩmũthambĩ *after*-clauses are realized by the subordinator *nyuma* 'after 'which could also mean 'behind'. Consider the sentence (8)

(8a) Nyũma ya kũ- bũtw- a,   mũ-jĩe   wa- e   nĩ-   wa-   ragan-   ĩr-
                                         e

       After   of   15- sack-   3-family3-POSS Foc-3SM-disintegrate-PFV- FV

FV

       'After being sacked his family disintegrated'

(8b) mũ-jĩe   wa-e   nĩ- wa-   ragan-   ĩr-   e   nyũma ya kũ- bũtw- a

       3-family 3- POSS Foc- 3SM- disintegrate-PFV- F   after   of 15- sack- FV

       'After being sacked his family disintegrated'

In sentence (8), the subordinator *nyũma* 'after' is used to indicate temporality; the speaker states that 'the family disintegrated' after the individual was sacked. The 'after' clause can also be preposed, as shown in (8b). Notably, the temporal preposition *nyũma* 'after' obligatorily takes the preposition *wa* 'of' and the verb is usually reduced to an infinitive.

Clauses without the subordinator *nyũma* 'after' can also indicate the *after*-relation as indicated in (9)

(9a) Ũ-   ka-   rĩ-   a   ĩrĩo   wa- thamb- a

       1SM-   FUT-   eat-   FV   1SM- bathe- FV

5.food

       'You will eat after bathing'

(9b) wa- thamb- a   nĩ - rĩo   ũ-   ka-   rĩ- a   ĩrĩo

       1SM- bathe- FV   Foc- then 1SM- FUT- eat- FV 5.food

       'After you bathe it then you will eat'

The sentences in (9) describe an *after-* relation indicating that that the act of 'eating' will occur after 'bathing' it however can also have the interpretation of 'when you bathe'. If the after clause is preposed as in (9b) the word *ni-rio*, which includes the word *then* and the focus marker *nĩ-* to mean 'it is then' can introduce the main clause.

After- clauses also occur with the modal marker *amba* which confers the reading of 'you should first'. Sentence (176) refers to the event of 'eating occurring after that of 'bathing'

> (10) Ũ- ka- rĩ- a   ĩrĩo   w-   amb   kũ- thamb- a
>
>   1SM-FUT-eat-FV 5.food   1SM- MOD 15- bathe- FV
>
>   'You will eat after bathing'

Until- Temporal Clauses

This subordinator is used if the situation of the matrix clause refers to a period of time whose end is marked by the beginning of the situation of the subordinate clause. It is also referred to as the relation of *terminus ad quem* ('until') which identifies a situation posterior to the situation in the main clause and specifically marks its end point (Kortman, 1996:85 Hetterle, 2015: 48). In Kĩmũthambĩ the subordinator 'until' is marked by *kinya* 'until' which can also mean 'up to' or even 'to arrive'

> (11) Mw- ekũrũ- a-   ta-   e-   ter- ĩr- e   mũ-rũme kĩnya a-   kĩny-
> mam- a,   a mũ-jĩe
>   1-wife   1SM- NEG- 1SM- wait- PFV-FV 1-husband until1SM-arrive-
> sleep- FV   FV 3- home
>   'The wife did not sleep, she waited for the husband until he arrived at home

Sentence (11) illustrates an *until-* temporal clause with subordinator *kĩnya* 'until'. The clause marks the end point of 'not sleeping' indicated in the main clause and the end point event is the 'arrival of the husband'. The *until*-clause occurs after the main clause. It cannot be preposed as this would alter the logical sequence of events.

Kĩmũthambĩ was also noted to allow sentences where the subordinator *kĩnya* 'until' occurred followed by the subordinator *rĩrĩa* 'when' as in (12)

> (12) Tw-ana   tũ- ra- onĩ- ĩr- e   mũ-bĩra   kĩnya rĩrĩa ũ- ra- thĩr- ĩr- e
>   2-children 2SM- PST- watch- PFV- FV 3-ball   until when 3SM- PST- end- PFV-
>   FV
>   'The children watched the match until when the it came to an end'

The two subordinators can be interpreted as each expressing the temporal-relation associated with it. The *until-* clause denotes 'the end of match' as the point where the activity in the main clause came to an end; that is 'the children stopped watching' The presence of *rĩrĩa* 'when', on the other hand, in the clause conveys the period or refers to the time when children watched the match.

Since- Temporal Clauses

Clauses that express terminus a quo identify a situation anterior to the situation in the main clause and specifically indicate its starting point or starting-period (Kortmann 1996: 85). The subordinate clause indicates the starting point of the situation described in the main clause. In Kĩmũthambĩ *since-* clauses are realized by the preposition *kuuma* which translates to 'from when/from the time' as illustrated by (13) and (14)

> (13a)Kũũma Mũthee a- tham- ĩr- a Nairobi,   a- tĩ- gend - ag- a   mũjĩe
>   since   Muthee 1SM- move- PFV- FV Nairobi   1SM-NEG-   go- HAB- FV 3.home
>   'Since Muthee moved to Nairobi, he does not go home'

(13b) Muthee a- tĩ- gend - ag- a mũ- jĩe   Kũũma a- tham- ĩr- a Nairo-bi,

     Muthee 1SM- NEG- go- HAB- FV 3-home   since 1SM- move- PFV- FV Nairo-bi

     'Muthee does not go home since he moved to Nairobi.

(14) Kũũma a- tĩg- a kũ- nyũ- a ncobĩ,   a- ta- na- rũar- a kaĩrĩ

     since 1SM- stop- FV 15- take- FV 9.alcohol   1SM- NEG-TNS- sick- FV again

     'Since he stopped taking alcohol, he has not been sick again'

The temporal clause in (13) indicate the beginning point of 'Muthee not going home' and in (14) the point 'where the individual stopped getting sick'. The order is also not restricted, the temporal clause can occur before or after the main as in (13b). However, in the presence of a definite shared subject as in (14), it must occur in the clause beginning the sentence as indicated in sentence (15) where the subject moves to the main clause when the temporal clause follows the main clause.

(15a) Muthee a- tĩ- gend - ag- a mũ -jĩe   Kũũma a- tham- ĩr- a Nairo-bi,

     Muthee 1SM- NEG- go- HAB- FV 3-home   since 1SM- move- PFV- FV Nairobi

     'Muthee does not go home since he moved to Nairobi.

(15b) Kũũma Muthee a- tham- ĩr- a Nairobi,   a- tĩ- gend - ag- a mũ-jĩe

     since Muthee 1SM- move- PFV- FV Nairobi   1SM- NEG- go- HAB- FV 3-home`

     'Since Muthee moved to Nairobi, he does not go home'

Cartographic Analysis of Kĩmũthambĩ Temporal Clauses

Examining the features of the left periphery of clause structure, various studies suggest that the derivation of temporal clauses involves the movement of an operator to its CP domain (left periphery). Demirdache and Uribe-Etxebarria's (2004) and followed by Haegeman (2010,2012) postulate that operator movement mirrors that of a relative clause and therefore treat temporal adverbial clauses as relative clauses. Building on this theoretical framework, this study investigates the syntactic behaviour of Kĩmũthambĩ temporal adverbial clauses with regard to the left periphery. Arregi and Nevins (2019) supports this perspective by highlighting the role of operator movement in various languages, suggesting that such movement is a common feature of clause structure. Additionally, the work of Poletto (2021) provides insights into how the left periphery can be employed to encode specific discourse-related functions, further elucidating the complex interplay between syntax and semantics in temporal expressions. This examination aims to contribute to the understanding of Kĩmũthambĩ temporal adverbial clauses by analyzing their syntactic positioning and behaviour in relation to the left periphery, thereby enhancing the broader discourse on the typological diversity of temporal expressions in Bantu languages.

Sentence (16) illustrates a typical temporal adverbial clause introduced by the subordinator *riria* 'when' and (17) is a situative clause indicating a *when-clause* relation but not introduced by the subordinator.

(16) A- ga- ŭk- a mŭ-jĩe rĩrĩa jĩ-ana jĩ- ae ĩ- ka-ĩng- a cŭkŭrŭ

1SM-FUT-come- FV 3-home when 8-children 8-POSS 8SM- FUT- close- FV 9.school

'He will come home when his/her children will close school'

(17) A- ga- ŭk- a mŭ-jĩe jĩ-ana jĩ-ae ĩ- ka- ĩng- a cŭkŭrŭ

1SM- FUT- come- FV 3- 8-children 8-POSS 8SM- FUT- close- FV 9. School
home

'He/She will come home when his/her children close school'

According to Haegeman (2012) and Danckaert & Haegeman (2012) such clauses are derived by movement of the wh-phrase to the left periphery of the clause as indicated by the example in English in (18)
(18) When I heard this song.
    [CP when [TP I [VP heard this song] ~~when~~]]]
                                        (Haegeman, 2009: 5)

Significantly, evidence for the operator movement analysis in English temporal clause (Demirdache & Uribe -Etxebarria 2004; Haegeman 2010,2012) is based on the unavailability of root transformations or Main Clause Phenomena (MCP) that is, syntactic phenomena such as argument fronting, locative Inversion, pre-posing around *be*, VP preposing and negative inversion, in English temporal clause. These transformations are however available in main clauses.

Focusing on argument fronting, Haegeman (2010; 2012) indicates temporal clauses in English do not allow argument fronting to occur in the clause. For instance, in sentence (18) if the argument 'the song' is fronted to pre-subject position the sentence would be ungrammatical as indicated in (19)
 (19) *When this song I heard ..,
    [CP when this song [IP I [VP heard ~~this song~~] ~~when~~]]]
                                        (Haegeman, 2009: 5)

The ungrammaticality according Haegeman (2012) is as a result of movement of the argument 'the gift' to the left periphery causing an intervention effect for movement of the operator 'when'. The argument lands in a peripheral position that intervenes between the base position and surface position of the moving operator. Such an intervention effect does not occur with adjuncts since operators may cross a circumstantial adjunct. Analysis of temporal 'when' clauses in Kĩmŭthambĩ illustrate that unlike English temporal 'when' clauses, they can allow argument fronting as illustrated in (20) and (21)

(20a) Kanana e- jŭrĩ- a nyomba ŭ- tŭ- ĭt- e tŭ- ĭj- e tŭ- on- e

Kanana 1SM- complete- FV 9-house 1SM- 2OM- call- FV 2SM- come- FV 2SM- see- FV

'When Kanana completes the house, call us we come and see'

 (20b) Nyomba, Kanana a- mĩ- jŭrĩ- a ŭ- tŭ- ĭt- e tŭ- ĭj- e tŭ- on- e

9.house Kanana 1SM-9OM- complete- FV 1SM- 2OM- call- FV 2SM- come- FV 2SM- see- FV

'The house, when Kanana completes it, call us we come and see'

(21a) Mŭ- thaka a- kŭ- gŭr- a ngaarĩ ĩ- the a- ra- ken- ĩr- e mŭno.

1-son 1SM- PST- buy- FV 9.car 1-father 1SM- PST- happy- PFV- FV very

'When his son bought a car, the father was very happy'

 (21b) Ngaarĩ, mŭ- thaka a- kŭ- mĩ- gŭr- a, ĩ-the a- ra- ken- ĩr- e mŭno.

9.car, 1-son 1SM- PST- 9OM- buy- FV 1-father 1SM- PST- happy- PFV- FV very

'When the car, the son bought, the father was very happy'

Sentences (20b) and (21b) illustrate the presence of a direct object *nyomba* 'house' and *ngaarĩ* 'car' respectively to the left of the subject of the subordinate clause and they yield grammatical sentences in Kĩmũthambĩ. The sentences illustrate that Kĩmũthambĩ temporal clauses allow argument fronting this is unlike in English temporal clauses in (19) where argument fronting is restricted. The moved direct object also triggers a clitic of its own on the verb also referred to as a resumptive pronoun as indicated by the object marker *–mi-* in sentence (20b) and (21b) which binds the object in topic position. Occurrence of the resumptive pronoun signals topicalization (Cinque 1990; Beninca & Polleto 2004). It indicates movement of the object to left periphery while leaving a trace at its extraction point.

It was also observed that Kĩmũthambĩ exhibits temporal clauses with the subject of the main clause preposed to the left of the temporal clause as in sentence (22)

(22) Tw-ana rĩ, gĩna a- kũ- ĩnũk-a, tũ- a-thĩn- ĩr- e mwanka tũ-a-torok-a
   2-children TM 1-mother 1SM- PRS- left- FV 2SM-PST-suffer-FV until 2SM-PST-go-FV
   'The children, when the mother left, suffered until they went away'

The temporal clause *gina akwinũka* 'when the mother left' could be interpreted as a when-clause or after-clause. The fronted constituent *twana* 'children' is considered to be topicalized from the main clause as it bears the topic marker *ri-* and the element is pronounced with a definite pause meant to emphasize it.

Compatibility of temporal clauses in Kĩmũthambĩ with a fronted object in the left periphery indicates the presence of an articulated left periphery. Since fronted arguments occupy TopP in the left periphery as postulated by the Cartography enterprise, it can be deduced therefore that temporal clauses in Kĩmũthambĩ project TopP in their left periphery.

Apart from arguments, adjuncts also can be fronted to pre-subject position as illustrated in (23)

(23a) A-jĩarĩ be- ej- a aũke ũ- tũ- ĩt- e
   2- parents 2SM- come- FV day after tomorrow   2SM- 2OM- call- FV

   'When the parents come the day after tomorrow, call us'

(23b) Aũke, a- jĩari be- ej- a, ũ- tũ- ĩt- e
   Day after tomorrow 2- parents   2SM- come- FV   2SM- 2OM- call- FV

   'The day after tomorrow, when the parents come, call us'

While topicalization is possible in Kĩmũthambĩ temporal clauses, the presence of constituents under focus within the temporal clause is not possible as indicated by sentence (24)

(24a) Ba- kũ- rĩkĩ- a kũ- and- a mboco, kũ- ra- ũr- ĩr- e mbũra nene mono
   2SM- PST- complete- FV   15- plant- FV   15- PST- rain- PFV- FV 10. rain heavy very
10.beans
   'When they completed planting, it rained very heavily'

(24b)*Nĩ- mboco ba- kũ- rĩkĩ- a kũ- a- nd- a kũ- ra- ũr- ĩr- e mbũra nene mono
   Foc- 10 beans 2SM- PST-complete - FV15- plant- 15- PST- rain- PFV- FV 10. rain heavy very
FV

   'When, beans, they completed planting, it rained very heavily'

Object focus or verbal focus is not possible in the subordinate clause as indicated in (24b). Kihara (2017a) notes that the focus marker does not occur in any constituent within the temporal adverbial clauses in Gĩkũyũ. The focus marker in Kĩmũthambĩ was also noted not to be allowed in individual constituents within the temporal clause. However, while focus on a constituent within the temporal clause is not possible, the focus marker can occur before the whole temporal clause, marking focus on the whole clause as in (25).

(25) *Nĩ- ba- kũ- rĩkĩ- a   kũ- and- a   mboco,*   *mbũra ĩ- ra- ũr- ĩr- e   nene mono*

Foc- 2SM- PST- complete- FV   15- plant- FV   10-rain 10SM PST- rain- PFV- FV   heavy very
10.beans

'It is when they completed planting beans that it rained heavily'

This clause has the structure of a cleft sentence, with the main clause being the complement of the temporal clause.

As such, the aspect of focalization is not possible in the temporal clause indicating that FocP cannot be projected in the left periphery. So, while left periphery of temporal clauses is articulate, the unavailability of FocP projection indicates that unlike that of the main clause, temporary clauses in Kĩmũthambĩ restrict focalization in the left periphery. However, the whole temporal clause can be under focus in the form of a cleft sentence.

CONCLUSION

In summary, this study examined the structure of temporal clauses in Kĩmũthambĩ and analysed the features of their left periphery. It was found out that the language expresses various types of temporal clauses, some introduced by free-standing subordinators and others by morphemes, such as the morpheme *-ki*. With exception of until clauses, the order of occurrence is not strictly restricted, allowing most temporal clauses to either precede or follow the main clause. Regarding the syntax of the left periphery, Kĩmũthambĩ exhibits unique characteristics compared to English temporal clauses. Specifically, Kĩmũthambĩ permits argument fronting to left periphery, suggesting the presence of Topic Phrase projection (TopP). However, focus constituents are subject to restriction as the presence of the focus marker on individual constituents renders the clause ungrammatical. Focus marking, however, on the whole temporal clause is allowed. Overall, while Kĩmũthambĩ temporal clauses displays a well-defined left periphery, it is not as intricate as that of main clauses. This study contributes to the understanding of syntactic structures in Kĩmũthambĩ, shedding light on the complexity of temporal expressions within the language.

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