I músu fu woóko taάnga: Restructuring in Saamáka

Marleen van de Vate
CASTL, Universitetet i Tromsø

Abstract

This paper addresses FU constructions in Saamáka. FU constructions are composed of a lexical or auxiliary verb and the complementizer/preposition fu. They convey an aspectual or modality reading. FU constructions have a fixed position in the TMA sequence, and they are placed in between the core TMA morphemes of Saamáka. In this paper, I show that verbs in FU constructions are restructuring verbs and therefore they have a mono-clausal structure.

1. Introduction

The morpheme fu in Saamáka co-occurs with lexical and auxiliary verbs to form a complex predicate. They convey an aspectual or modality reading. For now, I will refer to them as FU constructions. In the literature (see e.g. Byrne 1985, 1987; Wijnen and Alleyne 1987; McWhorter 1997; Aboh 2006; Lefebvre and Loranger 2006), the morpheme fu has been given a great deal of attention. However, constructions such as those in (1) and (2) have not been paid much attention.4

(1) A kabá u mbéi huiswerk
3SG finish FU make homework
’S/he finished making her/his homework’.

* This study is based on data collected in Wageningen, the Netherlands and Pikinslee, Suriname. I would like to thank my consultants for their time and patience. I am also thankful to Gillian Ramchand for discussion and Øystein Nilsen, Minjeong Son and Peter Svenonius for comments on an earlier draft of this paper. All remaining errors are my own.

1 In speech the morpheme is often reduced to u. In addition, when fu combines with certain pronouns coalescence takes place. Fu combined with the second person singular pronoun i results in fi.

2 Saamáka is an English-based creole spoken along the Suriname river, Suriname. In the literature, the language is also referred to as Saramaccan.

3 Abbreviations: SG = singular; PL = Plural; MOD = modal marker; ANT = Anterior; IMP = Imperfective; NEG = Negation; BE = Copula; COMP = Complementizer; DET = Determiner; ART = Article; LOC = Locative; Q = Question marker; NARR = narrative marker.

4 Saamáka is a tone language. It distinguishes high and low tones.

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(2) Híi sembe ábi u nyá u dée sa lfbì.
    all person have FU eat FU 3PL MOD live
    ‘Everyone must eat so they can live’.

FU constructions in Saamáka can be analyzed as restructuring verbs (see e.g. Cinque 2004; Wurmbrand 2008) or as constructions which fall under modal and aspectual categories. Building on Cinque (2004), FU constructions can be analyzed as either being mono-clausal or bi-clausal. This paper discusses the position of FU constructions in the tense-aspect-modality sequence. I show that FU constructions have a fixed position in the IP domain of Saamáka. There is no evidence for a restart after fu. Thus, I argue that for the Saamáka data presented, a mono-clausal analysis is favored. Furthermore, I address the question of whether fu in FU constructions is the same morpheme as complementizer fu or if they are different morphemes. The two morphemes cannot occur together. As a result, I argue that they are in complementary position and they are placed in ForceP, in the sense of Rizzi (1997).

2. Interpretations of fu

2.1. Multiple functions of fu

Fu is a polysemous morpheme. It can be used as preposition, complementizer and, in some varieties of Saamáka, as modal morpheme expressing obligation.

When used as a preposition, fu introduces a beneficiary or a possessor, as in (3).

(3)  a. Amato bái dí bûku fu mi.
    Amato buy DET book FU 1SG
    ‘Amato bought the book for me’ (Aboh 2006:12).

    b. Freddy hën téi dí móni u mi hën dé fufûuma.
       Freddy 3SG take DET money FU 1SG 3SG BE thief
    ‘Freddy has taken my money, he is a thief’.

Fu can also be used as a complementizer to introduce both tensed and tenseless clauses (Aboh 2006).

(4)  a. Amato bói dí ganía fu nyá.
    Amato cook DET chicken FU eat
    ‘Amato cooked the chicken to eat’. (Aboh 2006:33).

    b. Mi musu kulé u mi sa kisi í ë bus étì.
       1SG MOD run FU 1SG MOD catch DET bus yet
    ‘I have to run in order to be able to catch the bus’.

My consultants interpret sentence (4a), as in (5). In (5), the pronoun u, expressing first person plural, is attached to the complementizer fu, resulting
in *fuu*. Thus, a full clause is embedded under *fu* in (5).

(5) Amato bóí dí ganía *fuu nyá.

\[ \text{Amato cook DET chicken FU.1PL eat} \]

‘Amato cooked the chicken for us to eat’.

*‘Amato cooked the chicken (for him) to eat’.

Another function of *fu* is to express modality i.e. obligation, as claimed for example by Byrne (1987), McWhorter (1997), and Aboh (2006). However, the use of *fu* as a modality marker is debatable. Others have claimed that their consultants reject the use of *fu* as a modal marker (see Wijnen and Alleyne 1987). My consultants systematically judge a sentence like (6a) to be ungrammatical and replace it with (6b). One possibility to explain the discrepancy in judgement is to say that the language has several varieties. In the variety spoken by my consultants the morpheme *fu* by itself cannot occur as an obligation modal marker.

(6) a. %Amato *fu* bóí dí ganía.

\[ \text{Amato FU cook DET chicken} \]

‘Amato should cook the chicken’ (Aboh 2006:12).

b. Amato á(bi) *fu* bóí dí ganía.

\[ \text{Amato have FU cook DET chicken} \]

‘Amato must cook the chicken’.

This paper focuses on the use of *fu* in *FU* constructions shown in (1) and (2). What is interesting about these *FU* constructions is that they have a fixed surface position in the syntactic structure. Together with core tense, aspect and modality morphemes (TMA), *FU* constructions occur between the subject and the main verb. The ordering of core TMA morphemes and *FU* constructions is very rigid. The past time reference marker *bi*, if present, is always the first morpheme in the TMA sequence and the imperfective marker *ta*, if present, is the final morpheme. Core modals and *FU* constructions occur in between these two morphemes.

(7) A bi ló u ta feé dágu.

\[ \text{3SG ANT love MOD IMP fear dog} \]

‘S/he had been fearing dogs regularly’.

(8) Ésíde a bi bigí u ta lésí wán búku.

\[ \text{yesterday 3SG ANT begin FU IMP read ART book} \]

‘Yesterday s/he had begun reading a book’.

I discuss the interaction between *FU* constructions and core TMA morphemes in more detail in Section 4. First, I concentrate on the different *FU* constructions and their interpretation in Section 2.2. Section 3 discusses the outline of the problem. The paper concludes with a functional sequence approach analysis in Section 5.

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2.2. *FU* constructions and their interpretations

*FU* constructions involve lexical and auxiliary verbs like *lóbi* ‘love’, *kahá* ‘finish’, *bigí* ‘begin’, *músa* ‘must’, *ábi* ‘have’, and *sábi* ‘know’, combined with the morpheme *fu*. The constructions and their interpretations are listed in Table 1.

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Modality</th>
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<tbody>
<tr>
<td>habitual</td>
<td>necessity</td>
</tr>
<tr>
<td>completive</td>
<td>mental ability</td>
</tr>
<tr>
<td>inceptive</td>
<td>obligatory</td>
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Table 1: *FU* constructions

2.2.1. The *FU* constructions expressing modality

When *fu* combines with the necessity modal morpheme *músu*, the combination expresses either obligation, as in (9) or deductive epistemic modality, as in (10).

(9) I *músu fu* go duumí.

2SG MOD *fu go sleep*

‘You must go to bed’ (Lit. ‘You must go and sleep’).

(10) Freddy *músu fu* dòu a wósu kaa a di yúu akí

Freddy MOD *fu arrive LOC house already LOC DET hour here*

a ta kó, a *músu fu* dòu.

3SG IMP come 3SG MOD *fu arrive*

‘Freddy must have arrived at home at this time, he has been coming, he must have arrived’.

The second modal expression is *ábi fu*. Here the verb *ábi* ‘have’, combines with *fu*. It conveys a strong obligation interpretation, particularly an obligation of natural forces.


3SG *have FU kill animal*

‘He has to kill animals’ (in order for him to eat).

The last modal construction is *sá u*. This construction is derived from the verb *sábi* ‘know’ and expresses a learned ability, as in (12) and (13).

(12) A *sá u* tákí Saaná.

3SG *know FU talk: Sranan*

‘S/he knows how to speak Sranan’.

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Dí mûi de sà u sún.

‘That child knows how to swim’.

2.2.2. The FU constructions expressing aspect

Ló u is composed of lóbi ‘love’ and fu and has a habitual interpretation.

(14) Mi ló u hópo a ganá kandá.

1SG love FU stand up LOC chicken sing
‘I always get up at dawn’.

(15) Hú düka dü sómu ló u hópo a sîkísi yúu mámate.

every day DET sun love FU lift LOC six hour morning
‘The sun raises at six o’clock every morning’.

Kabá fu consists of the lexical verb kabá ‘finish’ and fu. It expresses the end stage of an event, i.e. completion.

(16) Dí muyée-muí kabá u seeká dee físi.

DET woman-child finish FU clean DET.PL fish
‘The girl has finished cleaning the fish’.

(17) A kabá u fón dü alísi.

3SG finish FU hit DET rice
‘S/he has finished to pound the rice’.

The final construction is bigí fu, which is composed of the lexical verb bigí ‘begin’ and fu. The construction has an inceptive meaning.

(18) Jan bigí fu lési dü bûku.

John begin FU read DET book
‘John starts to read the book’.

(19) Dí muyée bigí u bói.

DET woman begin FU cook
‘The woman begins to cook’.

3. The Puzzle

Based on the data presented in Section 2, fu appears to have multiple functions. It can be used as a preposition, a complementizer or in the FU constructions. As a complementizer, fu has a [+IRR] feature (also noted by Aboh 2006). An argument in favor of this comes from the temporal orientation of unmarked non-stative verbs. In Saamáka, unmarked non-stative verbs convey a past time reference. However, if embedded under the complementizer fu, unmarked predicates express present/future orientation.
(20) Á dé fii nyá di nyanyá fii kabá a
3SG.NEG BE FU.2SG eat DET food of.2SG finish LOC
paabí tidè.
plate today
Mother to child on her/his birthday: ‘You don’t have to finish your plate completely today’.

Fu in its FU construction use also conveys an [+IRR] feature, except when fu is combined with kabá with a completive interpretation.

This paper aims to establish how FU constructions are analyzed. Moreover, I will try to figure out how many different fu’s there are in Saamáka. Thus, whether the complementizer fu and the fu used in the FU constructions are the same morpheme or different morphemes. The prepositional use of fu is set aside in this paper.

If we follow Cinque (2004), there are two options of analyzing a predicate of which its semantic content matches a functional head. First, the verb can be analyzed as a regular lexical verb that can take a CP as a complement. Second, the verb can be analyzed as a functional head which is inserted in a functional position dominating the main verb in its extended projection. The former results in a bi-clausal structure and the latter in a mono-clausal structure. Cinque (2004) argues that restructuring verbs in Italian are functional verbs. He gives a number of arguments for his reasoning. I only point out those that might be of relevance for Saamáka. First, restructuring verbs cannot assign θ roles and therefore have no arguments. Furthermore, the ordering of restructuring verbs is rigid. This is due to the rigid ordering of functional heads in the structure.

In the literature, it has been pointed out that creoles have a rigid word order (see e.g. Bickerton 1984). Previous work on Saamáka has confirmed this claim (see e.g. Byrne 1987; Veenstra 1996). Therefore, a mono-clausal approach for FU constructions in Saamáka should be considered. However, fu as a complementizer can embed a full clause. One would expect a restart of the functional sequence after fu. Thus, both suggested analyses are possible in Saamáka. Section 4 discusses the syntactic distribution of FU constructions and the ordering of core TMA morphemes. In Section 5, the FU constructions are analyzed.

4. Syntactic Distribution of the FU constructions

In this section, the interaction between core TMA markers and FU constructions in Saamáka is studied. For readers unfamiliar with the core TMA system of Saamáka, I first provide a brief overview in Section 4.1.

4.1. Interpretations of core TMA morphemes

Unmarked non-stative verbs in Saamáka denote a past time reference, as in (21). Unmarked stative verbs are states and thus, they refer to present
moment, as in (22).

(21) A sun.
3SG swim
‘S/he has swum’.
or ‘S/he swam’.

(22) A dé a wósu.
3SG BE LOC house
‘S/he is at home’.

Saamáka has five core TMA morphemes, as listed in Table 2 and exemplified in (23) - (27).

<table>
<thead>
<tr>
<th>Tense</th>
<th>Aspect</th>
<th>Modality</th>
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<tbody>
<tr>
<td>bi</td>
<td>past time reference</td>
<td>ta</td>
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Table 2: Core Tense-Aspect-Modality morphemes

Bi expresses past time reference and is analysed as a relative past tense marker.

(23) A bi wáka a mútu dändu.
3SG ANT walk LOC forest in(side)
‘S/he had walked in the forest’.
or ‘S/he walked in the forest’.

The imperfective marker ta expresses progression and habituality.

(24) Someone on the phone asks what Senni, who is sitting next to you, is doing.

a. Senni ta woóko nóunóu akí.
Senni IMP work now here
‘Senni is working here right now’.

Sa is a possibility modal morpheme that expresses permission, ability and speculative epistemic. Sa differs from the learned ability construction sá u in that sa is used as marker for general ability or physical ability and sá u can only express learned ability.5

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5A difference between sá u and sa is that the former is derived from the verb sábi which has its origin in the Portuguese word saber (‘know’). In addition, sá u has a high tone. For the modal morpheme sa it has been argued that it is derived from English shall (Smith 1987) or Dutch zal (=future time reference morpheme) (Donald Winford p.c.).
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(25) a. A sa gó peé a lío.
   3SG MOD go play LOC river
   ‘S/he might have gone to the river to play’.
   or ‘S/he is allowed to go to the river and play’.

   b. Sínsi dí mú lá fí wá nóó a sa léi
      since DET child find ART glasses NARR 3SG MOD read
      móó búnu, more good
      ‘Since the child has glasses, s/he can read better’.

Musu expresses necessity is ambiguous between an obligatory and a deductive epistemic reading, as illustrated in (26). The difference between musu and múlu fu is that the use of the latter expresses a greater certainty or stronger obligation.

(26) a. I musu wási yu máu bí yóo i gó nyáá.
   2SG MOD wash 2SG hand before 2SG go eat
   Mother to child: ‘You must wash your hands before you eat’.

   b. Wán sembe ta náki mi dío, a múlu dé Freddy.
      ART person IMP hit 1SG door 3SG MOD BE Freddy
      ‘Someone is knocking on the door: It must be Freddy’.

Future time reference is expressed by the morpheme o.6

(27) What are you going to do tomorrow?
   a. Mi o gó a goón gó wóóko amanyá.
      1SG MOD go LOC vegetable garden go work tomorrow
      ‘Tomorrow I will go to my vegetable garden to work’.

   The past time reference marker bi, the imperfective marker ta and the possibility modal sa can co-occur with all other core TMA morphemes. The modals musu and o cannot be combined with each other. These modals can co-occur with other core TMA morphemes. Core TMA morphemes occur, when combined, in a fixed order, i.e. T-M-A.7

(28) A bi o sa ta súm.
    3SG ANT MOD MOD IMP swim
    ‘He would be able to swim regularly’.

(29) Senni bi musu sa ta dé a wósu.
    Senni ANT MOD MOD IMP BE LOC house
    ‘Senni had to stay home’ (there was no opportunity, but at that moment he should have been at home).

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6I assume future time reference markers to be modal morphemes, following Iatridou (2000).
7For a detailed study of the interaction of the core TMA morphemes in Saamáka, I refer readers to van de Vate (in progress).
4.2. Ordering of **FU** constructions and core TMA morphemes

4.2.1. **Músu fu**

The modal construction *músu fu* can combine with the past time reference marker *bi*, the possibility modal *sa* and the imperfective marker *ta*. It cannot co-occur with the future time reference marker *o*.

(30)  
(a) *A músu fu o kulé gó a sikóó.*  
3SG MOD FU MOD run go LOC school  
(b) *A o músu fu kulé gó a sikóó.*  
3SG MOD MOD FU run go LOC school

With regard to word order, the past time reference marker *bi* precedes *músu fu*, while the other two core TMA morphemes, possibility modal marker *sa* and imperfective *ta*, follow it. The epistemic interpretation of *músu fu* is ungrammatical when combined with *bi*.

(31)  
A bi musu u mbéi / tapá dí singi  (baúku)  
3SG ANT MOD FU make / close DET wooden roof hole  
yesterday  
‘S/he was obliged to repair the roof yesterday’.  
*‘It must be that s/he had repaired the roof yesterday’.*

In combination with the modal *sa*, *músu fu* can be ambiguous between an obligation and a deductive epistemic reading. *Sa* can only convey a permissive or ability reading. My consultants prefer a bi-clausal construction when epistemic *sa* combines with obligative *músu fu*.

(32)  
(a) A músu fu sa sún.  
3SG MOD FU MOD swim  
‘It must have been that s/he was able to swim’.  
or ‘It must have been that s/he was allowed to swim’.

(b) I músu u sa sikíí e fu i sa féni dí  
2SG MOD FU MOD write NARR FU 2SG MOD find DET  
woóko.  
work  
‘You are obliged to be able to write in order for you to be able to find a job’.

In combination with imperfective *ta*, *músu fu* is usually interpreted as an epistemic necessity.

(33)  
A músu fu tá duumí kaa.  
3SG MOD FU IMP sleep already  
‘S/he must be sleeping already’.
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To summarize, músu fu can combine with bi, sa, and ta, but not with the modal a. This gives the following order:

(34) bi > músu fu > sa > ta

4.2.2. Êabi fu

The obligatory modal construction Êabi fu co-occurs with the past time reference marker bi and the future time reference marker a, which precede Êabi fu, and imperfective ta, which follows Êabi fu.

(35) Dí wúmi bi Êabi fu woóko a dí bakáa wúsu.
    DET man ANT have FU work LOC DET white person house
    ‘The man was obliged to work at/in the white person’s house’ (Byrne 1987).

(36) A o Êabi u gó a hóndí amánján.
    3SG MOD have FU go LOC hunt tomorrow
    ‘S/he will be obliged to go hunting tomorrow (otherwise there is nothing to eat)’.

(37) Dí wúmi Êabi fu ta woóko a dí bakáa wúsu.
    DET man have FU IMP work LOC DET white person house
    ‘The man is obliged to be working at/in the white person’s house’ (Byrne 1987).

Êabi fu cannot co-occur with musu, both denote obligation. With musu as epistemic marker, my consultants prefer to use a bi-clausal structure, as in (39).

(38) *A musu Êabi fu kíi físi.
    3SG MOD have FU catch fish

(39) A musu dë taa a Êabi fu gó kíi físi.
    3SG MOD BE COMP 3SG have FU go catch fish
    ‘It must be that s/he is obliged to go catch fish’.

Êabi fu can only combine with epistemic sa. The permissive and ability reading of sa do not rise.

(40) a. *A Êabi u sa kíi dí mbéti.
    3SG have FU MOD kill DET animal

b. *A sa Êabi fu kíi déé mbéti.
    3SG MOD have FU kill DET+PL animal

(41) Senni sa Êabi fu gó a hóndí.
    Senni MOD have FU go LOC hunt
    ‘It might be that Senni is obliged to go hunting’.

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To summarize, ábi fu can combine with bi, o, epistemic sa, and ta. Combinations with deontic/dynamic sa and musu are ungrammatical. This gives the following order:

(42) \[ bi > o > sa > ábi fu > ta \]

4.2.3. Sá u

The learned ability construction sá u combines with all of the aforementioned core modals musu, sa and o, imperfective ta and the past time reference marker bi. All core TMA morphemes precede sá u, as shown below.

(43) A bi sá u waka a dúngu.

\[ 3SG \text{ ANT} \text{ know} \text{ FU} \text{ walk LOC} \text{ dark} \]

‘He knew how to walk in the dark (but he lost the ability)’.

(44) Abitimoo a o sá u lési.

\[ \text{later } 3SG \text{ MOD know FU read} \]

Teacher to parent: ‘In a little while, she (=your daughter) will know how to read’.

In cases where the learned ability marker, sá u, combines with the modal sa, the latter always gives rise to an epistemic reading.

(45) A sa sá u mbéi dí ladio.

\[ 3SG \text{ MOD know FU make DET radio} \]

‘It may be that s/he knows how to fix the radio’.

Both the deductive epistemic and the obligative reading of musu are available when combined with sá u.

(46) I musu sá u skífi fìi sa woóko akí.

\[ 2SG \text{ MOD know FU write FU.2SG MOD work here} \]

‘You must know how to write in order for you to be able to work here’.

When sá u combines with imperfective ta, the aspect marker follows the FU construction. Note that not all my consultants accept the combination of sá u and ta.

(47) %A sá u ta mbéi dí ladio.

\[ 3SG \text{ know FU IMP make DET radio} \]

‘S/he knows how to fix a radio’.

To summarize, sá u can combine with all core TMA morphemes. This gives the following order:

(48) \[ bi > o/\text{musu} > sa > sá u > ta \]
4.2.4. Ló u

The habitual construction ló u co-occurs with the past time reference marker bi, necessity modal musu and imperfective ta. Ta follows ló u, and bi and musu precede ló u. For the necessity modal musu both readings are available when combined with the ló u.

(49) A dí tén de Jan bi ló u kandá.
    LOC DET time there John ANT love FU sing
    ‘In those days John used to sing’.

(50) A musu ló u hôpo a ganía kandá.
    3SG MOD love FU get up LOC chicken sing
    ‘It must be that s/he gets up early in the morning regularly’.
    or ‘S/he is obliged to get up early in the morning regularly’.

(51) A ló u ta lési búku.
    3SG love FU IMP read book
    ‘S/he loves to read books at certain times’.

Combinations of ló u and the future time reference marker o are ungrammatical.

(52) *A o ló u gó péé bálí.
    3SG MOD love FU go play ball

Ló u can only combine with epistemic sa. The permissive and ability reading of sa do not rise.

(53) *A sa ló u gó péé bálí.
    3SG MOD love FU go play ball

(54) A sa ló u lési.
    3SG love FU IMP read
    ‘It might be that s/he reads habitually’.

To summarize, ló u can combine with bi, musu, epistemic sa and ta. Combinations with o and deontic/dynamic sa are judged ungrammatical by my consultants. This gives the following order:

(55) bi > musu > sa > ló u > ta

4.2.5. Kabá fu

The completive marker kabá fu can co-occur with the modals musu, o and sa and the past time reference marker bi. When they combine, kabá fu always follows these four core TMA markers. In my corpus, I do not have an example in which the completive marker combines with the imperfective marker ta. My corpus also lacks examples of the epistemic reading of musu when combined with kabá fu.
(56) Dí muyée-mi bi kabá u kötì déé fisì.  
*DET woman child ANT finish FU cut DET.PL fish*  
‘The girl had finished cleaning the fish’.

(57) Dí muyée mi o kabá fu kötì déé fisì bifó ú  
*DET woman child MOD finish FU cut DET.PL fish before 1PL*  
dóu a wósu.  
*arrive LOC house*  
‘The girl will have cleaned the fish, before we arrive home’.

(58) a. Dí muyée sa kabá fu kötì dì alísì feen bifó  
*DET woman MOD finish FU cut DET rice FU.3SG before*  
yán.  
*year*  
‘The woman is able to harvest her rice before the new year’.

b. A sa kabá u seeká deec fisì.  
*3SG MOD finish FU clean DET.PL fish*  
‘She might have finished cleaning the fish’.

(59) Té u mi tooná kó i musu kabá u sikìfi dì  
*when FU 1SG return come 2SG MOD finish FU write DET*  
sóndì aki.  
*thing here*  
Teacher to student: ‘When I come back, you must have finished writing this letter’.

To summarize, *kabá fu* can combine with *bi,* *musu,* *o* and *sa.* This gives the following order:

(60) bi > o/musu > sa > kabá fu

4.2.6. Bigí fu

The inceptive marker *bigí fu* co-occurs with all core TMA morphemes. The imperfective marker *ta* follows this construction, while the modals, *o,* *sa* and *musu* and the past time reference marker *bi* precede it. Unfortunately, my corpus lacks the combination of inceptive *bigí fu* and the epistemic reading of the modals *musu* and *sa."

(61) Jan bi bigí fu lésì dì bùkù èsìde bifó a gó  
*John ANT begin FU read DET book yesterday before 3SG go*  
a sikóo.  
*LOC school*  
‘Jan had started to read the book yesterday before he went to school’.

(62) Jan bigí fu ta nákì dì oto wán.  
*John begin FU IMP hit DET other one*  
‘John starts hitting the other one’.

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(63) Jan o bigí fu kotí di alísí amanyá.
    John MOD begin FU cat DET rice tomorrow
    ‘John will start harvesting the rice tomorrow’.

(64) a. Dí muyée sa bigí u náki di alísí.
    DET woman MOD begin FU hit DET rice
    Everything is set: ‘The woman is able to begin to husk the rice’.

   b. Senni sa bigí u nyá nyán.
    Senni MOD begin FU eat food
    ‘Senni is allowed to begin to eat rice’.

(65) A musu bigí u balí di wósu.
    3SG MOD begin FU sweep DET house
    ‘S/he must begin to sweep the house (to be ready in time before her/his mother comes back)’.

To summarize, *bigí fu can combine with all core TMA morphemes. This gives the following order:

(66) bi > o/musu > sa > bigí fu > ta

4.3. Summary

FU constructions can be grouped into a modality class, containing músu fu, ábi fu, and sá u, and an aspectual class, containing ló u, kabá fu, and bigí fu. In addition, when used in FU constructions, the lexical/auxiliary verb is obliged to take fu. Without fu, the aspectual or modality interpretation is lost, only their lexical/auxiliary meaning surfaces. The ordering of the morphemes, as presented in Section 4.2, is the only possible order in Saamåka. Deviations from these orderings are ungrammatical. From this, we can conclude that the ordering of TMA markers in Saamåka is rigid. A FU construction cannot be placed on top of another FU construction, i.e. they cannot combine. A sentence with two FU constructions, as in (67a), is ungrammatical. Fu in the second construction is deleted to make the sentence grammatical (67b).

(67) a. *A sá u bigí u mbéí di wósu.
    3SG know FU begin FU make DET house

   b. A sá u bigí mbéí di wósu.
    3SG know FU begin make DET house
    ‘He knows how to start building the house’.

When músu fu is combined with another FU construction, the structure is judged to be grammatical. I will come back to this doubling effect in Section 5.2.

Before discussing the syntactic distribution of FU constructions with respect to core TMA markers in Saamåka, the surface ordering of core TMA
morphemes is given. The past time reference marker *bi* is always the first morpheme in the sequence when it co-occurs with other TMA morphemes. *Bi* places the event referred to at some point in time before the reference time. This reference time may be the utterance time, but this is not obligatory. The interpretation of *bi* scopes over the whole event, including the modality or aspectual feature expressed by other TMA morphemes present. Since the necessity modal *musu* and the future time reference marker *o* cannot co-occur with each other, I assume that they occupy the same syntactic position. A reason to assume this is that there is no semantic reason for these two morphemes not to co-occur. Both *musu* and *o* follow the past time reference marker *bi*. *Musu* is interpreted either as an obligation morpheme or as a deducitive epistemic morpheme. The morpheme *o* gives a future time reference reading of an event. The possibility modal morpheme *sa* follows the modal morphemes *musu* and *o* when they co-occur. *Sa* gives either a permissive or an ability reading. Only in combination with imperfective *ta* is the epistemic reading available. The imperfective morpheme *ta* is always the final morpheme in the sequence. It conveys a progressive or habitual reading of an event. The surface structure of core TMA morphemes in Saamáka is as follows:

\[
\text{bi} > \text{musu} > \text{sa} > \text{ta} > \text{o}
\]

Now, I discuss the surface order of *FU* constructions and core TMA morphemes in Saamáka. The necessity construction *másu fu* behaves differently from the other constructions. It can precede other *FU* constructions. Second, as only *FU* construction it can precede the possibility modal morpheme *sa*. The other *FU* constructions follow *sa*. Furthermore, *másu fu* is the only *FU* construction which is not derived from a lexical verb, but an auxiliary, *musu*. Because *másu fu* behaves differently from the other *FU* constructions, I put the marker aside for now. I assume that in the surface structure it is in the same position as the modals *musu* and *o*.

The following generalizations can be made for other *FU* constructions based on the data presented in Section 4.2. All follow the past time reference marker *bi* and the necessity modal *musu*. In addition, if they can co-occur with the modals *o* and *sa*, modals precede *FU* constructions. Imperfective *ta*, if present, always follows *FU* constructions. Furthermore, a *FU* construction cannot co-occur with another *FU* construction. Since semantic restrictions for certain combinations are ruled out, I assume that all *FU* constructions appear in the same position in the surface structure. Going back to the surface structure of core TMA morphemes, *FU* construction...
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tions are placed in between the modal sa and the imperfective marker ta. Moreover, I assume fu not to be in the same slot as the FU constructions, but in a position right after them. As a result, there will only be one fu present in the surface structure, instead of six different ones. The surface structure of TMA expressions in Saamáka is then as follows:

\[
\begin{align*}
\text{bi} & \quad > \quad \text{musu} & \quad > \quad \text{ló} & \quad > \quad \text{fu} & \quad > \quad \text{ta} \\
& \quad > \quad \text{o} & \quad > \quad \text{kabá} \\
& \quad > \quad \text{mísu} & \quad > \quad \text{bigí} \\
& \quad > \quad \text{sá} & \quad > \quad \text{ábi}
\end{align*}
\]

5. Analysis

In Section 4.2, the attested surface ordering of core TMA morphemes and FU constructions was given. Building on Cinque (1999) and Starke (2007), I propose a more fine-grained underlying order of functional heads in the IP domain in Saamáka. First, the FU constructions are divided into at least two different heads; an aspectual and a root modality head. Ló ‘love’, kabá ‘finish’ and bigí ‘begin’ are placed under the aspectual head. Inceptive and completive refer to a certain point/time span of the event; inceptive refers to the beginning and completive to the end. Based on their semantic characteristics, it is logical to place them under the same aspectual head. One could argue that habitual, ló, is located in a different position than inceptive and completive, because their characteristics are quite distinct and there are no semantic restrictions on the co-occurrence of the habitual marker and the other two aspect markers. Thus, the habitual marker is placed above the inceptive and the completive marker in Saamáka. Ábi ‘have’ and sá ‘know’ are root modals. However, the former expresses deontic modality and the latter dynamic modality. Therefore, I assume that they occupy two different positions. The head containing ábi will precede the head containing sá. These modal heads will precede the aspectual heads containing ló, kabá and bigí in the structure.10 The core modals are divided into two

\[\text{The hierarchy of functional heads as given in (Cinque 1999:106):}\]

(i) \[\text{Mood:speech act \text{Mood:evaluative \text{Mood:evidential \text{Mod:epistemic \text{[T(Past)} \\
\text{T(Future) \text{Mood:realis \text{Mod:necessity \text{Mod:possibility \text{Asp:habitual}} \\
\text{Asp:delayed \text{Asp:dispositional \text{Asp:repetitive(I) \text{Asp:frequency(I)}} \\
\text{Mod:volitional \text{Asp:progressive(I) \text{Asp:terminative \text{Asp:continuative}} \\
\text{Asp:perfect(?)} \text{Asp:prospective \text{Asp:inceptive(I) \text{Asp:obliteration}} \\
\text{Mod:ability \text{Asp:frustrative/success \text{Mod:perception \text{Asp:conative}} \\
\text{Asp:compleitive(I) \text{Voice \text{Asp:compleitive(II) \text{Asp:inceptive(II) \text{Asp:compleitive(II)}} \\
\text{Asp:repetitive(II) \text{Asp:frequency(II)}}} \]

\[\text{The suggested order of TMA heads is influenced by Cinque (1999) and the claims regarding the functional sequence made there.}\]
groups, universal modals, *musu*, *o* and *músu*, and an existential modal, *sa*. The past time reference marker *bi* is placed on top of the modals. At the moment *fu* is left aside. I come back to its position in the syntactic structure later in this paper. The structure of the IP domain in Saamáka is given in (68).

\texttt{(68)}

\begin{center}
\begin{tikzpicture}
  \node (BI) {BI};
  \node [below] at (BI.south) {bi \textit{Necessity/Universal}};
  \node [below] at (BI.south) {\textit{musu} \textit{Possibility/Existential}};
  \node [below] at (BI.south) {\textit{músu} \textit{Obligation}};
  \node [below] at (BI.south) {\textit{ábi} \textit{Learned ability}};
  \node [below] at (BI.south) {\textit{ša} \textit{Habitual}};
  \node [below] at (BI.south) {\textit{ša} \textit{AspP}};
  \node [below] at (BI.south) {\textit{ši} \textit{Imperfective}};
  \node [below] at (BI.south) {\textit{ši} \textit{ta}};
\end{tikzpicture}
\end{center}

As pointed out in Section 3, Cinque (2004) argues that restructuring verbs are functional verbs in a mono-clausal structure. Additionally, restructuring verbs form a complex verb in which a complement and a matrix verb are combined. Moreover, restructuring verbs occur, when they co-occur, in a very rigid order. Since restructuring verbs are functional verbs, they do not have arguments and thus do not assign $\theta$ roles. I suggested two possible options for the analysis of *FU* constructions in Saamáka; a restart approach or a continuous functional sequence approach. Having examined the data, I suggest some adaptations to the restart analysis. The embedding analysis suggests a restart under *FU*. From the rigid word order in Saamáka it follows that *fu* in the *FU* constructions can only embed something as small as an aspectual head containing imperfective *ta*. The continuous functional sequence approach does not need to be adapted.

In Saamáka, verbs that are used as complex predicates (*ábi*, *bigi*, *kabá*, *šiši*, *músu*, and *sáši*) do not take DP arguments, unlike their lexical counterparts. Furthermore, Section 4.2 has shown that the ordering of TMA morphemes and *FU* constructions is very rigid. This is in favour of a monoclusal approach. However, a bi-clausal approach has not been rejected yet. The following data show that imperfective *ta* can also precede the verb in *FU* constructions with the interpretation of habituality, as in (69) - (71).
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(69) A ta bigí fu nákí dí oto wán.
    3SG IMP* begin FU hit  DET other one
'S/he regularly begins to hit the other one'.

(70) A ta sá u lesi.
    3SG IMP know FU read
'S/he regularly learns how to read'.

(71) Dí wómi bi ta ãbi fu wóóko a dí baká
    DET man  ANT IMP have FU work  LOC DET white person
    wósu.
    house
'The man was obliged to regularly work at/in the white person’s house'.

The difference between ta in the above examples and ta discussed earlier (see e.g. (62)) is that it in the latter gives rise to a progressive interpretation while in the former it has a habitual interpretation. 11 Keeping in mind the rigid word order in Saamáka, a possible conclusion we can draw from these different interpretations is that ta has two positions in the structure. Doubling of ta is then expected. This is shown in (72).

(72) A ta bigí fu ta nákí dí oto wán.
    3SG IMP begin FU IMP hit  DET other one
'S/he begins hitting the other one regularly'.

From this example, I conclude that imperfective ta has two positions in the structure, one above the FU constructions for its habitual interpretation and one below the FU construction for its progressive reading. Thus, there is no evidence for a restart after FU constructions in Saamáka. I argue that FU constructions in Saamáka are restructuring verbs, and therefore have a mono-clausal structure.

Another question raised in Section 3 concerned whether complementizer fu and restructuring fu are the same morpheme or two different morphemes. There is no evidence that complementizer fu and fu in FU constructions are different morphemes. They are in complementary distribution. As (73) and (74) show, the morphemes cannot co-occur. The fu in the FU construction is deleted. 12

11 Imperfective ta can also precede ló u. However, it cannot precede másu fu. This is another difference between másu fu and other FU constructions.

12 The impossibility of having complementizer fu and FU constructions fu in one sentence is also pointed out by Damonte (2002). Aboh (2006), however, claims that these two morphemes can co-occur. Veenstra (2008) argues that Aboh has mis-analysed sentences containing two fu’s. In Aboh’s examples, the two fu’s present are prepositional fu and complementizer fu. I agree with Veenstra analysis.
As a result, I argue that *fu as a complementizer and fu in FU constructions are the same morpheme. As mentioned earlier, *fu has an irrealis feature. Following Rizzi (1997), complementizers can be placed under Force. Abuh (2006) also places complementizer *fu under Force. Thus, *fu is base generated in ForceP. The difference in word order between complementizer *fu and restructuring *fu is due to movement. The tree structure of the CP and IP domain in Saamáka, regarding TMA expressions, is shown in (75).13

13I argue that the past time reference marker *bi is an anchor point shifter, in the sense of Enç (1987). As a result, *bi is situated in FinP. For a detailed argument for this position, I refer the reader to van de Vate (2007).
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Summarizing, this paper has shown that FU constructions in Saamáka are composed of a lexical/auxiliary verb and the morpheme fu to form a complex predicate. Saamáka has a rigid word order, both on a clausal level and in the TMA sequence. As a result, FU constructions have a fixed position in the structure. They follow all core TMA morphemes, except for progressive ta which follows the FU constructions. They are restructuring verbs and should be analyzed as having a mono-clausal structure. I also have demonstrated that complementizer fu and restructuring fu are the same morpheme. Fu is located under ForceP.14 Cinque (1999, 2004) was

14Saamáka has two complementizers fu and tua ‘that’. They can co-occur, as observed by Veenstra (1996) and confirmed by my consultants.

(i) I taki tua faa naki di dagu.

2SG say COMP FU:3SG hit DET dog
taken as a guideline regarding ideas about the functional hierarchy of heads and restructuring verbs. This paper adds to Cinque (2004) the discussion of a prepositional complementizer, \( fu \), and its position in the underlying structure, which is, as shown, high in the CP domain.

In the final pages of this paper I will demonstrate how the analysis works with an actual example. Furthermore, I will come back to the doubling of \( m\text{\text{"}isu} \ fu \), pointed out in Section 4.3.

5.1. The analysis at work: \( A \ \text{\text{"}abi} \ fu \ \text{ta k\text{"}isi f\text{"}isi} \)

In (76), obligation construction \( \text{\text{"}abi} \ fu \) co-occurs with past time reference marker \( \text{\text{"}abi} \) and progressive \( \text{ta} \).

\[
\begin{align*}
(76) & \quad A \ \text{\text{"}abi} \ fu \ \text{ta k\text{"}isi f\text{"}isi}. \\
& \quad 3SG \ ANT \ have \ FU \ IMP \ catch \ fish \\
& \quad \text{‘S/he was obliged to be catching fish (in order to eat)’}.
\end{align*}
\]

In order for the surface structure to come out right, now that \( fu \) is located under ForceP, two movements have to take place. First, the complement of \( \text{\text{"}abi} \), \( \text{ta k\text{"}isi f\text{"}isi} \), will have to move, leaving a remnant behind, \( a \ \text{\text{"}abi} \). This remnant will, after movement, be placed in the specifier position of ForceP. The reasoning behind these movements is as follows: I argue that \( \text{\text{"}abi} \) carries a FOCUS feature which forces the complement selected to be backgrounded. As a result, the constituent of ModP\textsubscript{3}, AspP\textsubscript{4}, is moved to specXP. Now, we are left with a remnant under FinP. FinP has a [+IRR] feature. \( Fu \), positioned under ForceP, has an unchecked strong [IRR] feature. Consequently, the constituent FinP is moved to specForceP. The structure of (76) is given in (77).

\[
\text{‘You told him to hit the dog’ (Veenstra 1996:156).}
\]

Because of this co-occurrence, Damonte (2002) argues that \( taa \) is located in ForceP and \( fu \) in FinP. Since I have strong arguments in favor of the past time reference marker \( bi \) being located in FinP, I disagree with Damonte’s analysis. I would like to argue that to explain languages like Saamâk, in which two complementizers can co-occur, we need to expand the CP domain with an extra position for prepositional complementizers like \( fu \). How this works exactly, I leave for future research.
It is the FOCUS feature of ābi that first triggers the backgrounding of the complement of ābi followed by the movement of the complement to XP. Resulting in a remnant movement of a bi ābi. These movements will not take place if complementizer fu is present in the clause, because there will not be an element carrying this FOCUS feature that the verbs in the FU constructions carry. Thus, there is no trigger for the movement story. Other focus constructions in Saamáka are triggered by the focus particle we. For detailed discussion of focus constructions in Saamáka, I refer to Smith (1996).

5.2. Future research: Doubling of músu fu

Doubling of fu appears in cases where músu fu is placed on top of another FU construction like ló u, kabá fu and sá u. This raises a problem for the movement story.

(78) A músu fu ló u hópo a ganían kandá.

‘She must like to get up early in the morning’ (cause s/he is always up with dawn).

I leave this problem for further research. Nevertheless, I would like to propose two possible solutions. Since I only have examples in which músu
fu co-occurs with another FU construction, it is possible that músu fu is grammaticalized. In addition, as pointed out in Section 4.2, músu fu behaves differently from the other FU constructions.

The second option is recursion of FORCE. In (78), the movement story is as before, taking ló as the morpheme which combines with fu and leaving músu as a ‘normal’ morpheme. After all movement has taken place, recursion of FORCE triggers the movement of músu. With the second option, the question arises why there is no recursion in case of complementizer fu.

References


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