An account of the stative vs. dynamic split in Saamáka

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Abstract

In this paper, I intend to shed light on the stative vs. dynamic distinction in Saamáka. As in many other creoles, utterances containing an unmarked stative verb have a present interpretation, while those containing an unmarked dynamic verb have a past interpretation. Based on detailed fieldwork, I will demonstrate that the discourse contexts in which the bare verb form occurs matches with those in which Present Perfect is known to occur cross-linguistically. I postulate that the language has a morphological null Perfect morpheme in its TAM paradigm. The Perfect analysis proposed in this paper exploits the independently acknowledged difference between states and events concerning the inability of the latter to co-occur with a point-like Present Tense. The 'perfect' must be inserted in these contexts to create a derived Resultant state, creating the illusion of past tense in many interpretational contexts. An advantage of the Perfect analysis is that it provides a natural account of why the temporal distinction splits along the stative vs. eventive divide without additional stipulations for non-default readings of the bare verb form.

1 Introduction

This paper discusses morphologically unmarked verbs in Saamáka[1]. In Saamáka, as in many other creole (and non-creole) languages, verbs are often unmarked[2] for tense, aspect and modality. A sentence containing an eventive verb has a past interpretation, while one containing a stative verb has a present interpretation, as in (1) and (2) respectively (see also Byrne 1987; Rountree 1992; Veenstra 1996)[3].

(1) Context: Who swam to the other side of the river this afternoon?
Dí womímíi ***wáka*** *a mátu.*
DET boy walk LOC forest
'The boy walked in the forest'.
or 'The boy has walked in the forest'.

(2) Context: What does the man fear?
Dí wómi ***feée*** *dí dágu.*
DET man fear DET dog
'The man fears the dog'.

Since in these examples there is no overt tense, aspect or modality (TAM) morphology present, we must address the question of what triggers the temporal interpretation of these sentences, and of how the difference between stative and eventive verbs might be explained. The observed difference with regard to temporal interpretation between stative and eventive verbs is not an isolated phenomenon (see Welmers 1973 on Igbo and Yoruba, Manfredi 1991 on Igbo, Essegbey 1999 on Ewegbe, Satre 2002 on Ngomba (Benue-Congo; Bamileke), Aboh 2004 on Gungbe, Harley 2008 on Tuwuli (Kwa)). This correlation is interesting for readings that emerge where little morphology is involved. An explanation is, therefore, necessary. This paper presents new data to discuss an old problem. I aim to investigate the bare verb form in

[1]Saamáka is an English/Portuguese-based creole spoken along the Suriname River, Suriname. The substrate languages are the Gbe languages and Kikongo (Smith 1987). The language was created by slaves who fled the plantations towards the end of the 17^{th} century (Price 1983). Currently, the language has 50.000 speaker (Aboh et al. to appear) who reside on the banks of the Suriname River, in Paramaribo, in French Guiana, and in The Netherlands. In the literature, the language is also referred to as Saramaccan.

[2]Unmarked means that there is no overt morphology present that marks a verb for tense, aspect or modality.

[3]Abbreviations: SG = singular; PL = Plural; MOD = modal marker; PST = Past interpretation; IMP = Imperfective; NEG = Negation; BE = Copula; COMP = Complementizer; DET = Determiner; ART = Article; LOC = Locative; Q = Question marker; RQ = Rhetorical Question marker; NARR = Narrative marker; FU = Prepositional complementizer *fu*; IDEO = Ideophone.

Saamáka in a formal fashion, and I will examine different ways of formalizing the decomposition of eventive and stative verbs with regard to their temporal interpretation.

Before I start, a point of terminology is in order which is fundamental for the discussion in this paper. Perfect and Perfective Aspect differ from each other in the following way: 'the former refers to a construction with particular temporal and aspectual characteristics, the latter refers to a closed aspectual viewpoint' (Smith, 1997, 106). Perfective Aspect (and Imperfective Aspect) are 'concerned with different ways of representing the internal temporal constitution of a situation', whereas Perfect 'tells us nothing directly about the situation in itself, but rather relates some state to a preceding situation' (Comrie, 1976, 52).

The above described distinction in temporal interpretation is common across creole languages. To elucidate this phenomenon, it has often been argued that unmarked (eventive) verbs convey a Perfective Aspect reading (see Gibson 1992 on Guyanese Creole, Hackert 2004 on Bahamian Creole, Hagemeijer 2007 on Santome, Gooden 2008 on Belizean Creole, Yakpo 2009 on Pichi). In the present study, Winford's (2000) analysis of the unmarked verb form in Sranan (Section 3), Saamáka's sister creole, is taken as inspiration for this perfective analysis. The expectations and consequences of the Selection for Covert Perfective analysis are spelled out in a formal fashion, and it is investigated whether this can account for the difference in temporal interpretation between stative and eventive verbs. I will demonstrate that a perfective analysis cannot account for the Saamáka data (Section 5). The data discussed in this paper is based on fieldwork which was undertaken in the core of the Saamáka speech community. Questionnaires which specifically targeted simple past, perfective or perfect readings were developed to tease apart the interpretation of the bare verb form. The data I collected was elicited in a discourse context, and these contexts do not match with a discourse context in which only a perfective could be used. They do match with a discourse context in which a perfect is used. To explain the difference in temporal interpretation, I, therefore, postulate that Saamáka has a morphological null Perfect morpheme in its TAM paradigm. This null Perfect is obligatorily present in the underlying structure of a sentence containing an unmarked eventive verb, while it is optionally present for stative verbs. I postulate that Present Tense in Saamáka is momentary and, therefore, it can only embed stative predicates. Eventive verbs have to be merged with a state deriving functional head (e.g. modal, perfect) to be able to combine with Present Tense (Section 6). The stativity requirement placed by Present Tense on its complements, and the obligatorily presence of the

morphological null Perfect morpheme when the verb is eventive provides a natural account of why the temporal distinction splits along the stative vs. eventive divide, rather than according to a boundedness criterion (which would be the case under a perfective analysis). I will demonstrate that the null Perfect analysis proposed in the present study is a more compelling analysis than the Perfective analysis. The null Perfect analysis can account for all readings of the bare verb form in Saamáka, and no additional stipulations are required to explain non-default readings. Such stipulations would be necessary under a Perfective analysis.

This paper is organised as follows. Section 2 presents an overview of the several temporal interpretations of the unmarked verb form in Saamáka. Section 3 presents an overview of Winford's (2000) ideas regarding the unmarked verb form in Sranan. This is followed by an overview of my theoretical assumptions regarding the composition of Tense and Aspect in Section 4. In Section 5, I lay out the Selection for Covert Perfective analysis which argues that eventive verbs select for a null aspectual head which is interpreted as 'perfective'. With respect to the Saamáka data, I will present empirical and conceptual problems against this analysis. Section 6 presents my own account which argues that the temporal difference between stative and eventive verbs is to be explained by the presence of a morphological null Perfect morpheme in Saamáka's TAM paradigm. I end this paper with some concluding remarks.

2 Temporal interpretations of the bare verb form

As (1) and (2) respectively exemplify, eventive verbs can give rise to a past interpretation, and stative verbs to a present interpretation. Furthermore, in temporal 'when' clauses, as in (3), and in conditionals, as in (4), an unmarked eventive verb can have a future interpretation.

(3) *Té i* ***tooná kó*** *nóo mi ó skífi í biífi aki kabá.*
when 2SG return come NARR 1SG MOD write DET letter here finish
'When you come back I will have finished writing this letter'.

(4) *Ée i* ***butá*** *wán stónu ai tási aki déndu nóo á*
if 2SG put ART stone LOC.DET bag here in(side) NARR 3SG.NEG
ó boóko.
MOD break
'If you put a stone in this bag, it won't break'.

Additionally, stative verbs can be interpreted with a past reading of the eventuality[4] when the discourse setting is situated in the past, as illustrated for the copula in (5)[5].

(5) Context: This extract discusses the flood of 2006. Due to heavy rainfall in Brazil, the Suriname River was flooded and destroyed parts of several villages along the Suriname River.

a. *Yoó dá u to? Únfa dí gaánwáta bigí u kó únfa i dú.*
3SG.MOD give 1PL right how DET flood start FU come how 2SG do
F: 'You will give us something, right? When the flood started to come, what did you do?'

b. *Mé bi* ***dé*** *akí.*
1SG.NEG PST BE here
S: 'I was not here.'

c. *Oh yá bi* ***dé*** *akí?*
oh 2SG.NEG PST BE here
F: 'Oh, you were not here?'

d. *Mi* ***dé*** *a Semoisi.*
1SG BE LOC Semoisi
S: 'I was in Semoisi.'

e. *Oh yá bi dé akí nó?*
oh 2SG.NEG PST BE here RQ
M: 'Oh, you were not here?'

f. *Nóno mi* ***dé*** *a Semoisi. Di a kó a dóu té.*
no 1SG BE LOC Semoisi when 3SG come 3SG arrive until
S: 'No, I was in Semoisi. When it came, it reached up to there.'

For the moment, sentences as (3) - (5) are set aside and I will focus on (1) and (2). In Section 6.8, I will return to these examples to discuss how they can be explained under the Perfect analysis.

[4]The term eventuality is used as cover-term for states, events and processes. The term state refers to stative eventualities, and the term event to event/process eventualities throughout this study (in the sense of Bach 1986a).

[5]Abbreviations: F = Fonteni, interpreter; S = Sina, an elderly monolingual woman and main narrator; M = Marleen. Please note that the Saamáka of the author is that of a second language learner. This interview was recorded in March 2009 in Pikin Slee, Suriname. Semoisi is a different Saamáka village and it is also located along the Suriname River.

3 The unmarked verb form in Sranan

This section provides an overview of morphologically unmarked verbs in Sranan. The description is based on Winford (2000) (see also Voorhoeve 1957; Seuren 1981). Winford's (2000, 393) descriptive analysis that unmarked verbs in Sranan express 'states and events seen as unanalysed wholes', i.e., Perfective Aspect, will be the inspiration for a perfective hypothesis which is spelled out in a formal fashion and investigated for Saamáka (Section 5).

Dahl's (1985) idea of a dominant vs. a secondary meaning of a functional item is adopted by Winford. Dahl postulates that when a functional item conveys several interpretations, there is one meaning which is dominant. He further distinguishes between prototypical use and peripheral use. The dominant meaning correlates with the prototypical use of a functional item. The secondary meaning depends on the usage of a certain functional category in discourse. The dominant meaning will be taken to label a functional item.

Winford (2000) postulates that unmarked verbs in Sranan convey various readings depending on the discourse context in which they occur. This makes it difficult to designate a specific interpretation to them. In Sranan, the prototypical use of unmarked verbs is present for statives, and past for eventives, as illustrated in (6) and (7) respectively.

(6) *A pikin* ***wani*** *go sribi.*
the child want go sleep
'The child wants to go and sleep' (Winford, 2000, 395).

(7) *A kamra kowru bikaa mi* ***opo*** *a fensre.*
the room cold because I open the window
'The room is cold because I opened the window' (Winford, 2000, 395).

A secondary use of the unmarked verb form is a past interpretation for statives, as exemplified in (8). A past interpretation for stative verbs is constrained by a past discourse context.

(8) *Dus mi ben go a wan tu suma kaba. Dan mi* ***prakseri*** *kon*
So 1SG PST go LOC one two person COMP then 1SG think come
mi kon na oom N.
1SG come LOC uncle N.
'So I already went to one or two people. Then I thought, let me come to uncle N' (Winford, 2000, 396).

Another secondary use of unmarked verbs in Sranan is that they can convey a present perfect reading, as illustrated below.

(9) a. *Ayi, unu go na en?*
yes you go LOC him
A: 'Yes, did you go to him?'
b. *Neen, mi no* ***go*** *ete. Te mi e drai.....*
no I NEG go yet when I IMP return
B: 'No, I haven't gone yet. When I'm going back.....' (Winford, 2000, 397).

A third secondary use of unmarked verb form is open conditionals, as (10) exemplifies. In these type of constructions, unmarked eventive verbs can convey a future interpretation.

(10) *En efu a man dati* ***wini*** *en, a kondre e kon bun zeker.*
and if the man that win it the country IMP come good surely
'And if that man wins it (the election), the country will surely improve' (Winford 2000, 397).

Winford postulates that the discourse function of the unmarked verb form is to indicate that the eventuality has current relevance. This is an interpretation that is strongly connected to the interpretation of the Perfect. Additionally, the temporal interpretation of unmarked verbs is established by the discourse context. The basic meaning of unmarked verbs in Sranan is that 'it presents a situation in its totality, without regard for its internal structure' (Winford 2000, 395, in the sense of Comrie 1976). Unmarked verbs are an instantiation of the Perfective Aspect category, and Perfective is conveyed via zero marking.

Since it is commonly assumed that in creoles the unmarked verb form conveys a perfective interpretation (see Gibson 1992 for Guyanese Creole, Hackert 2004 for Bahamian Creole, Hagemeijer 2007 for Santome, Gooden 2008 for Belizean Creole, Yakpo 2009 for Pichi), it is important to investigate whether this can also account for the difference in temporal interpretation between sentences containing a stative verb and those containing an eventive verb in Saamáka. A perfective analysis poses a number of questions. The first is one of implementation; how do we cash out the intuition that the default interpretation of eventives is 'perfective', and that in turn, the default interpretation of perfective is 'past'? I will spell out such a system in Section 5. The second question that arises is empirical; is there independent evidence

that unmarked eventive verbs in Saamáka are actually interpreted perfectively when they have a past interpretation (note that it need not be interpreted perfectively *all* the time, but crucially for the perfective analysis to go through, it would need to be perfective under the null past interpretation)? In Section 5.3, I will show from my fieldwork questionnaires that this is not the case. The final issue is conceptual; under a formalization of the default perfective strategy, it simply must be *stipulated* that eventives are always perfective: the aktionsart properties of the eventuality which classify it as being bounded or unbounded appear to be irrelevant, so a semantic explanation is not readily available under standard assumptions. This issue will also be addressed in Section 5.3.

4 Assumptions concerning the composition of Tense and Aspect

The theoretical assumptions in the present study are adapted from Klein (1992; 1994) and Demirdache & Uribe-Etxebarria (2000; 2007). Aspect is concerned with the temporal perspective of an eventuality (Comrie 1976; Smith 1997) and it can refer to viewpoint aspect and situation type aspect (Smith 1997), or outer and inner aspect (Travis 1991; MacDonald 2008). Viewpoint aspect views an eventuality as a whole (i.e. perfective) or in its subparts (i.e. imperfective). Situation type aspect refers to aktionsart, which is the way a predicate is structured in relation to time (Dowty 1979; Comrie 1976; Smith 1997; MacDonald 2008).

In Klein's (1992; 1994) system of temporal interpretation, three time spans are distinguished: time of utterance (TU), topic time (TT) and time of situation (TSit). The former refers to the moment when an utterance is made. Topic time refers to the time for which a particular utterance makes an assertion. It refers to a time span to which the assertion made is constrained. Time of situation is the time at which an eventuality occurs (Klein 1992, 535-538).

I postulate that Tense and Aspect are 'dyadic spatiotemporal ordering verbs taking time-denoting phrases as arguments' (Demirdache and Uribe-Etxebarria 2000, 162, see also Zagona 1995; Stowell 1996). The external argument of Aspect is topic time and its internal argument is time of situation. The external argument of Tense is time of utterance and its internal argument is topic time (Zagona 1995; Stowell 1996; Demirdache and Uribe-Etxebarria 2000).

Viewpoint Aspect denotes a temporal ordering relation between topic time and time of situation. Perfective Aspect indicates that topic time fully includes time of situation, or formally, TT ON TSit. For Imperfective Aspect, topic time is fully

included in time of situation, or, TT IN TSit (in the sense of Partee 1984; Klein 1994; Kratzer 1998; Zagona 2007). This is presented below.

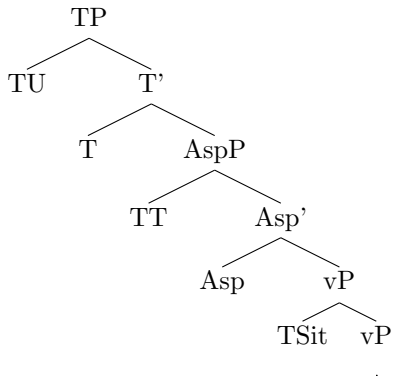
TT fully includes TSit	perfective	ON
TSit fully includes TT	imperfective	IN

Tense orders time of utterance with regard to topic time. This relation can be one of precedence or simultaneity. Past Tense expresses that time of utterance is located after topic time, or, TU AFTER TT. Present Tense indicates a simultaneous relation between time of utterance and topic time, or, TU WITHIN TT. Future Tense expresses that time of utterance is located prior to topic time, or, TU BEFORE TT (in sense of Demirdache & Uribe-Etxebarria 2000; 2007). This is presented below.

TT precedes TU	past	AFTER
TU simultaneous with TT	present	WITHIN
TU precedes TT	future	BEFORE

The phrase structure of Tense and Aspect is presented in (11) and is adapted from Demirdache & Uribe-Etxebarria (2007, 333). It is modified so that the relations are labeled according to the terminology used in the present study.

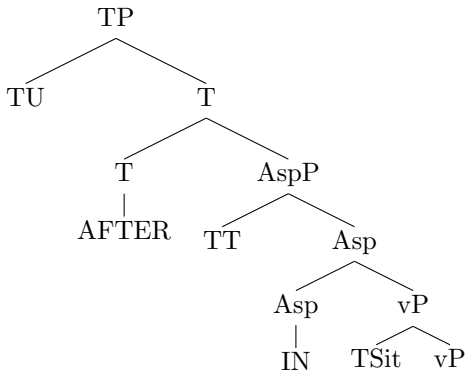
(11)



This phrase structure is exemplified in (12). Here, the Tense head expresses Past, and the Aspect head Imperfective. The temporal relation between topic time and

time of utterance is one of precedence, or, TU AFTER TT. The relation in Aspect between topic time and time of situation is one of inclusion, or, TT IN TSit.

(12) a. Henry was building a house (Demirdache and Uribe-Etxebarria, 2000, 166).

b. 

In the next section, I will argue that the difference in temporal interpretation between stative and eventive verbs can be explained by means of a selectional mechanism whereby eventives select for a null aspect head with the interpretation 'perfective' and where 'perfective' in turn select for a null tense head with the interpretation 'past'.

5 Hypothesis I: Selection for Covert Perfective

This section investigates how one might account for the difference in temporal interpretation between a sentence containing a stative and an eventive verb in Saamáka under the hypothesis that eventive verbs come with a default perfective specification. This hypothesis is inspired by Winford's (2000) analysis of unmarked verbs in Sranan where they are treated as 'unanalysed wholes' i.e. Perfective Aspect (see Section 3). This idea is spelled out in a formal fashion by assuming a number of selectional criteria; an eventive verb would select for a null Aspect head with a [+perfective] value which in turn would select for a null Tense head with a [+past] value. Since there is a semantic mismatch between Perfective and Present Tense (in the sense of Comrie 1976; Klein 1994; Smith 1997; Malchukov 2010), it would be problematic to assume that stative verbs would also have a Perfective specification. Consequently under this hypothesis a stative verb would select for a null Aspect head with the value [+imperfective] which in turn would select for a null Tense head with a [+present]

value.

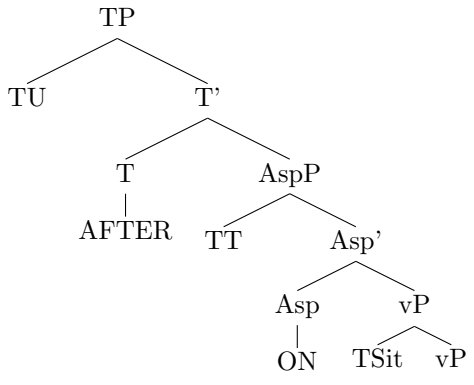
This section is organised as follows. Section 5.1 provides a short overview of the meaning and interpretation of Perfective Aspect. Additionally, the Selection for Covert Perfective analysis is formulated. Section 5.2 presents an overview of aktionsart in Saamáka. In Section 5.3, some empirical and conceptual problems against this analysis are discussed.

5.1 Perfective Aspect

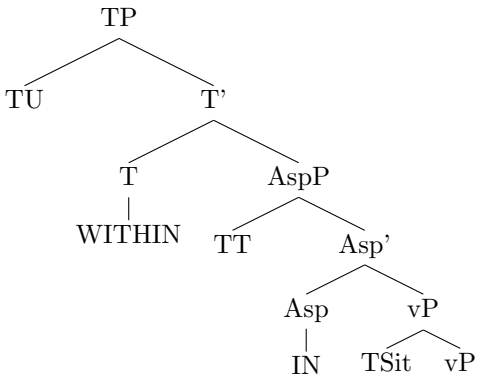
Perfective aspect views an eventuality as a whole, from the outside. An eventuality modified by perfective is a complete action and all parts of an eventuality are viewed as a single whole including the initial and final endpoints of this eventuality (in the sense of Comrie 1976; Smith 1997). More formally, perfective has been analysed as denoting a temporal ordering relation of inclusion between time of situation and topic time; or, TT ON TSit (Partee 1984; Klein 1994; Kratzer 1998; Zagona 2008).

The hypothesis investigated in this section states that verbs select for a certain aspectual head. The nature of these selectional features depends on dynamicity. Eventive verbs would select for null aspectual head with the interpretation 'perfective', and stative verbs for a null aspectual head with the interpretation 'imperfective'. These null aspectual heads in turn would select for a null Tense head. Following Dahl (1985) and Bybee et al. (1994), I assume that the tense interpretation of perfective aspect would be past tense and for imperfective aspect present tense. The phrase structure for eventive verbs would be as in (13) and for stative verbs as in (14).

(13)



(14)



To evaluate the proposed Selection for Covert Perfective analysis, I will investigate

whether there is independent evidence that the class of eventive verbs in Saamáka is perfective. In the next section, it is examined what the influence of aktionsart is on the temporal interpretation of an utterance.

5.2 Situation type Aspect

Situation type aspect is concerned with inherent aspectual features of verbs, especially the internal temporal structure of an eventuality (Comrie 1976; Parsons 1990; Smith 1997; MacDonald 2008). Vendler (1957) distinguishes four aspectual classes: states, activities, accomplishments, and achievements (see also Dowty 1979)[6]. These four primitive semantic categories are distinct from each other in denoting different values for the lexical aspectual properties of dynamicity, durativity, and telicity. States continue endlessly i.e. they do not need a constant input of energy. This implies that they do not have a natural endpoint, they are unbounded. This characteristic is also true for activity verbs. Activities differ from states in that they need a continuous input of energy to continue. Accomplishment and achievement verbs also have this characteristic. Accomplishments and achievements have in common that their eventualities have a natural endpoint, and they indicate a change. The difference between accomplishments and achievements is that the latter is instantaneous, while the former is a process with internal transitions (see Comrie 1976; Parsons 1990; Smith 1997; MacDonald 2008). English examples of a state, activity, accomplishment and achievement predicate are presented in (15) respectively (Smith, 1997, 44-47).

(15) a. The baby was asleep at noon.
b. Emily pushes the cart.
c. Sam opened the door with a key.
d. Mary deliberately broke the glass.

The four primitive semantic categories and their binary values for the lexical aspectual properties of dynamicity, durativity, and telicity are presented below (Smith, 1997, 20).

[6]In recent years, Vendler's classification, although still very accurate, has been expanded. Smith (1997) classifies the class of semelfactive verbs as a specific class. Semelfactives are dynamic, atelic and punctual. van Valin (2006) subdivides achievements into those with agents and those without agents. These additional verb classes do not add anything to the point made here.

	Static	Durative	Telic
States	+	+	-
Activities	-	+	-
Accomplishments	-	+	+
Achievements	-	-	+

5.2.1 Situation type Aspect in Saamáka

In this section, I investigate the influence of aktionsart on the temporal interpretation of a clause, and I demonstrate that the difference in temporal interpretation depends on dynamicity only.

As (16) - (17) demonstrate, a sentence containing a stative verb has a present interpretation.

(16) Context: Has your sister returned from Paramaribo already?
Nóno a ***dé*** *a fóto éti.*
no 3SG BE LOC Paramaribo still
'No, she is still in Paramaribo'.

(17) *Senni* ***lóbi*** *Lathoya.*
Senni love Lathoya
'Senni loves Lathoya'.

A sentence containing an unmarked activity verb is interpreted with a past interpretation.

(18) Context: What has your wife done today?
Kapie ***woóko*** *a goón tidé.*
K work LOC vegetable garden today
'Kapie worked in her vegetable garden today'.

(19) Context: Some girls are talking about the boókodídía (a night vigil) from the previous night.
Nóo u ***bayá*** *nóo u* ***bayá*** *téee nóo u* ***bebé****.*
NARR 1PL dance NARR 1PL dance IDEO NARR 1PL drink
'Then we danced, we danced a lot and then we drank.'

Utterances containing an accomplishment predicate have a past interpretation.

(20) Context: An elderly man is talking about a certain time when he was setting up a camp in the forest for him and his wife.
Naandé a ***mbéi fáya*** *fu dí gudyu labu mbéti dí u kíi dí*
there 3SG make fire FU DET type of wild pig DET 1PL kill when
u kó de.
1PL come there
'There she made a fire for the wild big which we killed when we came there'.

(21) Context: Where is Senni?
Senni ***gó*** *a fóto*
Senni go LOC Paramaribo
'Senni has gone to Paramaribo'.

Sentences containing an achievement verbs have a past interpretation.

(22) Context: An elderly man is telling hunting stories. One day, while he was hunting he met some people who were gathering food for a wake.
U sí wánlo sembe. U bi téi háfu fu gó pasá dáka. Híi fu didé
1PL see some person 1PL PST take half FU go pass day all FU that
sembe ***déde*** *a gandá.*
person die LOC village
'We saw some people. We took something to pass the day. Someone in the village passed away'.

(23) a. *Andí i kíi éside?*
what 2SG kill yesterday
'What did you kill yesterday?'
b. *Mi* ***kíi*** *wán dyanga.*
1SG kill ART deer
'I have killed a deer'.

To sum up from (16) - (23), I conclude that the lexical aspectual properties of telicity and durativity do not influence the temporal interpretation of a sentence. This temporal difference is influenced by dynamicity only. There exists a correlation between the temporal interpretation of a sentence and the dynamicity of a verb. Stative verbs give rise to a present interpretation of a sentence and eventive verbs to a past interpretation.

In the remainder of this section, it is investigated whether the Selection for Covert Perfective analysis can account for the difference in temporal interpretation between eventive and stative verbs. This hypothesis argues that verbs would select for a

certain null aspectual head depending on the stativity of the predicate; eventive verbs select for a head with the interpretation 'perfective' and stative verbs with the interpretation 'imperfective'.

5.3 Problems and discussion

In Section 3, I raised an empirical issue which concerns the question whether there is independent evidence that bare eventive verbs are interpreted perfectively when a sentence has a past interpretation. My fieldwork questionnaires investigated this issue by making use of specific diagnostics (like adverbial tests) and discourse contexts, and those indicate that this is not the case in Saamáka.

5.3.1 Problem 1

A characteristic of Perfective is that it indicates boundedness of an eventuality (Comrie 1976; Smith 1997; Bhat 1999). Boundedness implies that an eventuality has endpoints; an initial point and a final point. It, however, does not indicate the termination of an eventuality. Telicity indicates the natural endpoint of an eventuality. Since both perfective and telicity emphasize the boundaries of an eventuality, there is a natural correlation between them. It is therefore expected that activities and states, which are atelic, behave similarly, and that accomplishments and achievements, which are telic, behave similarly (see Bohnemeyer and Swift 2004 for discussion). In Section 5.2.1, it was shown that in Saamáka, the lexical aspectual property of dynamicity influences the temporal interpretation of a sentence and not the other parameters of telicity and durativity. In Saamáka, all eventive verbs including activity verbs convey a past interpretation when they are unmarked, as illustrated in (18) - (23). It is, therefore, important to establish wether activity verbs in Saamáka are telic or atelic. This is done by using the 'for/in an hour' diagnostic. Accomplishments and achievements are telic events, as illustrated in (24), while activities are atelic, as exemplified in (25)[7].

(24) *A wán yúu déndu a* ***sún akí gó alá.***
LOC ART hour inside 3SG swim here go there
'In an hour, s/he has swum from here to there'.

[7]The predicate *sún akí gó alá* ('to swim from here to there') in (24) indicates a goal and, therefore, is an accomplishment, while the predicate *sún a dí lío* ('to swim in the river') in (25) does not indicate a goal and is, therefore, an activity.

(25) a. *Wán híi yúu lánga a* ***sún*** *a dí lío.*
ART whole hour long 3SG swim LOC DET river
'For a whole hour, s/he swam in the river'.
b. **A wán yúu déndu a* ***sún*** *a dí lío.*
LOC ART hour inside 3SG swim LOC DET river
Intended interpretation 'In an hour, s/he has swum in the river'.

In other words, Saamáka distinguishes between activities on the one hand, and accomplishments and achievements on the other with regard to boundedness. This is in contrast with the temporal interpretation of unmarked verbs in the language. The lexical aspectual property of dynamicity influence the temporal interpretation, and not telicity. Since boundedness is an important characteristic of Perfective (in the sense of Comrie 1976; Klein 1994; Smith 1997; Bhat 1999), it makes one wonder whether it would be accurate to claim that all eventive verbs in Saamáka would select for a null Aspect head with a [+perfective] value.

Languages in which the interpretation of viewpoint Aspect depends on aktionsart demonstrate a division along the lines of telicity (see e.g. Bohnemeyer and Swift 2004 for a cross-linguistics discussion, Smith 1997; Lin 2005 for Chinese, Swift 2004 for Inuktitut, Kiyota 2008 for Senčáθen (Salish)). As the Chinese examples in (26) and (27) illustrate, stative and activity verbs are interpreted imperfectively and have a present interpretation, while accomplishments and achievements are interpreted perfectively and have a past interpretation.

(26) *Ni da lanqiu ma?*
you play basketball Q
'Do you play basketball?' (Lin, 2005, 3)

(27) *Zhangsan dapuo yi-ge huaping.*
Z break one.CL vase
'Zhangsan broke a vase' (Lin, 2005, 3).

Furthermore, research on first language acquisition demonstrate that a similar semantic bias exists in the acquisition of tense and aspect cross-linguistically. A child's earliest use of grammatical temporal expressions demonstrate a prototypical use of progressive/imperfective forms for activity/atelic verbs and perfective/past forms for telic verbs (see Bronckart and Sinclair 1973 for French, Brown 1973 for English, Antinucci and Miller 1976 for Italian, Aksu 1978 for Turkish, Stephany 1981 for Greek, Weist et al. 1984 for Polish, Li 1990 for Chinese, Behrens 1993 for German, Shirai 1993 for Japanese, Stoll 1998 for Russian). Andersen and Shirai (1996) explain

this semantic correlation between perfectivity and telicity with the Aspect Hypothesis which is presented below:

The Aspect Hypothesis (Andersen and Shirai, 1996, 533):

1. Learners first use past marking (e.g. English) or perfective marking (Chinese, Spanish etc.) on achievement and accomplishment verbs, eventually extending its use to activities and stative verbs

2. In languages that encode the perfective/imperfective distinction, imperfective past appears later than perfective past, and imperfective past marking begins with stative verbs and activity verbs, then extending to accomplishment and achievement verbs

3. In languages that have progressive aspect, progressive marking begins with activity verbs, then extends to accomplishment or achievement verbs

4. Progressive markings are not incorrectly overextended to stative verbs

Based on these studies, it is possible to claim that cross-linguistically there exists a strong correlation between perfective aspect and the lexical aspectual property of telicity. The question that needs to be answered is: If verbs come with a perfective interpretation in Saamáka, why would the language divide along a stative vs. eventive split? Problematic is that there is no semantic explanation which can account for the idea that dynamic eventualities come with a default perfective interpretation. This can only be formulated as a stipulation, and such a stipulation would predict that past eventualities would always be interpreted as perfective. As problem 2 and problem 3 in the next two sections will show, such a stipulation would predict the wrong data pattern in Saamáka. The results from my fieldwork questionnaires indicate that it is simply not the case that past eventive eventualities are interpreted perfectively in the language.

In Section 6, I will argue that the difference in temporal interpretation between stative and eventive verbs can be attributed to the assumption that the language has a morphological null Perfect morpheme. The difference between statives and eventives with regard to their internals semantics is exploited by the Perfect analysis. Statives have no internal structure, while eventives do. As a result, only the former can co-occur with a momentary Present Tense, whereas the latter requires to be embedded by a state deriving functional head before it can combine with a

momentary Present Tense. This difference in internal semantics results in a difference in temporal interpretation. In other words, the stative vs. eventive distinction is naturally accounted for under the Perfect analysis.

5.3.2 Problem 2

Malchukov (2010) and Schaden (2011) demonstrate that cross-linguistically perfective aspect and present tense are incompatible. A perfective eventuality cannot be temporally located at the time of utterance (see also Comrie 1976; Dahl 1985; Klein 1994; Smith 1997; Bhat 1999)[8]. Perfective aspect refers to a complete and bounded eventuality, while time of utterance denotes a point in time (in the sense of Comrie 1976; Bach 1986b; Dowty 1986; Smith 1997; Hallman 2009). Moreover, '[t]here is a pragmatic principle of interpretation for sentences about Present time, requiring that they be interpreted in a certain way: Present senteces may not include the endpoints of situations' (Smith, 1997, 110). Consequently, there is a semantic mismatch between perfective aspect and present tense. Another point is that temporal adverbials referring to the time of utterance, like 'now' in English, modify the topic time (in the sense of Musan 2001; Demirdache and Uribe-Etxebarria 2007; Zagona 2007), as in (28). In order to get the right semantics of these utterances, topic time must coincide with the time of utterance i.e. expressing Present Tense. Otherwise there would be a mismatch between the time expressed by the temporal adverbial (which is 'now') and the time expressed by the topic time (which would be 'not now').

(28) Amina has left by now (Demirdache and Uribe-Etxebarria, 2007, 49).

In Saamáka, temporal adverbials referring to the time of utterance can co-occur with unmarked eventive verbs, as illustrated in (29) - (30).

(29) Context: From a distance, you and your friend follow a man who is climbing a mountain. When you see that this man is standing at the top of the mountain, you say to your friend:
Nóúnóu nóo dí wómi ***dóu*** *a dí kúnunu hédi.*
now NARR DET man arrive LOC DET mountain head
'The man has reached the top of the mountain now'.

[8]This does not imply that perfective morphology cannot co-occur with present tense morphology. However, if they do co-occur either one is reinterpreted or both are reinterpreted (see Malchukov 2010; Schaden 2011). For example in East Slavic, present tense is reinterpreted as future, whereas perfective remains perfective, as illustrated in (31) for Russian, while in South Slavic the combination of perfective and present tense results in a generic present (narrative or habitual) interpretation (see Malchukov 2010 for discussion).

(30) Context: Someone is talking about the time she lived in Paramaribo. Since a couple of months, she lives in Pikin Slee again.
Mi líbi féifi yáa a fóto ma nóúnóu mi ***tooná kó*** *a*
1SG live five year LOC Paramaribo but now 1SG return come LOC
mi kónde.
1SG village
'I lived five years in Paramaribo, but now I have returned to my village'.

In these examples, the temporal adverbial *nóúnóu* refers to the time of utterance and, thus, modifies the topic time. To get the right semantics of these examples, the temporal ordering relation between topic time and time of utterance must be one of simultaneity, or, TT = TU, and, thus, expresses Present Tense. Based on a cross-linguistic incompatibility between perfective and present tense (Comrie 1976; Smith 1997; Malchukov 2010; Schaden 2011), it is highly unlikely that in these examples unmarked eventive verbs would select for a null aspect head with a [+perfective] value. If unmarked eventive verbs would select for a [+perfective] value, there would be a semantic mismatch. The internal semantics of perfective aspect make it impossible for it to combine with Present Tense: the former expresses a complete and bounded situation (in the sense of Comrie 1976; Smith 1997), while the latter refers to a point in time (in the sense of Bach 1986b; Dowty 1986; Hallman 2009).

In Reichenbachian terms, these sentences have a Present Perfect interpretation. The eventuality occurred prior to the time of utterance. As a result, time of situation is situated prior to topic time, or, TSit < TT = TU. I will return to them in Section 6.2.

5.3.3 Problem 3

The Selection for Covert Perfective analysis aims to cash out the idea that the default interpretation of eventive verbs is 'perfective', and that in turn, the default interpretation of perfective is 'past'. This analysis argues in favour of a selectional mechanism whereby bare eventive verbs select for a null Aspect head with a [+perfective] value and where 'perfective' selects for a null Tense head with a [+past] value. These selectional mechanisms are based on the assumption that there is a correlation between perfective and past tense (as argued for in Dahl 1985; Bybee et al. 1994). Under the analysis investigated here, it is important to point out that the correlation between perfective and past tense does not follow from the composition of tense and aspect assumed here. Tense expresses a temporal ordering relation between topic time and time of utterance, while aspect expresses a temporal ordering relation between topic

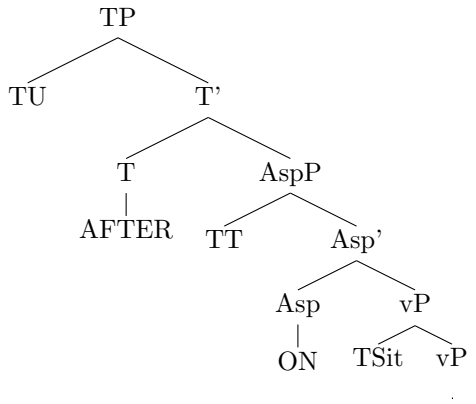
time and time of situation. These relations do not depend on each other. Thus to explain the past interpretation of eventive verbs, this correlation between perfective and past tense needs to be stipulated independently.

Cross-linguistically, it is possible for perfective to combine with both past, as (27) above illustrates for Chinese, and future, as (31) illustrates for Russian.

(31) *Ja napišu statju k ponedel'niky.*
1SG PFV.write.PRES.1SG article by monday
'I will have written the paper by Monday' (Borik, 2006, 200).

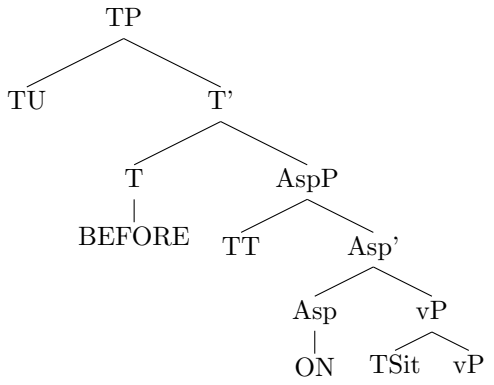
The phrase structure of the Chinese example is presented in (32) where the temporal ordering relation between topic time and time of utterance conveys a past reading. The phrase structure of the Russian example is presented in (33) where the temporal ordering relation between topic time and time of utterance conveys a future interpretation.

(32) a. *Zhangsan dapuo yi-ge huaping.*
Z break one.CL vase
'Zhangsan broke a vase' (Lin, 2005, 3).

b. 

(33) a. *Ja napišu statju k ponedel'niky.*
1SG PFV-write-PRES.1SG article by monday
'I will have written the paper by Monday' (Borik, 2006, 200).

b.



These examples illustrate that, cross-linguistically, there is no indication that Perfective must co-occur with Past Tense. This is also pointed out by Youssef (2003, 84) who argues that 'while past tense is often associated with perfective by virtue of the fact that what is complete is often also past, there is no necessary relationship between the two; perfectives can occur in the future' (see also Bhat 1999, 48). This so-called correlation between Perfective and Past Tense cannot be derived logically from the semantic decomposition and, therefore, should be stated independently and, thus, functionally motivated. To complete the Selection for Covert Perfective analysis, we would have to stipulate a selectional relationship between Perfective Aspect and Past Tense. This correlation should be a fixed selectional relation i.e. such a stipulation would imply that a Perfective Aspect head would always select for a Past Tense head. Problematic for this selectional relation would be the temporal interpretation of bare verbs in temporal 'when' clauses. Unmarked (eventive) verbs can, depending on the context, refer to an eventuality situated in the future, as exemplified in (34).

(34) *Té a* ***kísi*** *móni nóo a ó bái wán sondí dá máti feen.*
when 3SG catch money NARR 3SG MOD buy ART thing give friend FU.3SG
'When s/he gets money, s/he will buy something for her/his friend'.

Under an analysis which assumes a rigid selectional relationship between Perfective Aspect and Past Tense, the future interpretation of unmarked eventive verbs in temporal 'when' clauses would be a deviation and cannot be explained.

Section 6 will present evidence in favour of a morphological null Perfect morpheme

in Saamáka's TAM paradigm. Since the Perfect inherently encodes past shifting of the embedded eventuality, the past interpretation of bare eventive verbs is naturally accounted for without any additional stipulations. In Section 6.8, I will return to temporal 'when' clauses and will demonstrate how they are accounted for under the Perfect analysis.

5.4 Summary

Winford's (2000) analysis of unmarked verbs in Sranan was taken as inspiration for the Selection for Covert Perfective analysis. The idea that unmarked verbs are perfective was spelled out in a formal fashion. The expectations of this formal analysis were presented in terms of selectional criteria. Under this analysis, eventive verbs would select for a null aspect head with a 'perfective' interpretation and 'perfective' would select for a null tense head with a 'past' interpretation. Stative verbs, on the other hand, would select for null aspect head with a 'imperfective' interpretation which in turn would select for a null tense head with a 'present' interpretation. A number of arguments against the Selection for Covert Perfective analysis were formulated. Problematic is that my fieldwork investigations revealed that there is no independent evidence that bare verbs with a past interpretation in Saamáka are interpreted perfectively.

For the Selection for Covert Perfective analysis to work, there would have to be two null aspectual heads with opposite values (perfective for events and imperfective for states), and two null tense heads with opposite values (past for perfectives and present for imperfectives). In the solution I will propose (Section 6), there will be a null 'perfect' but only one value for null Aspect (imperfective) and null Tense (present). This gives a more parsimonious system, and reduces the learning of null functional items to one paradigmatic default.

Before I conclude this section, I would like to point out that it would be possible to stipulate that eventives select for a [+perfective] value. Logically there would be nothing wrong with doing so for an individual language. Since it does not follow from anything else, it would, however, be a stipulation. More importantly, based on detailed questionnaires which teased apart simple past, perfective and perfect readings, I argue for Saamáka that it is simply not true that eventive verbs which have a past interpretation are interpreted perfectively.

6 An alternative: The morphological null Perfect analysis

The analysis to explain the difference in temporal interpretation between stative and eventive verbs in Saamáka studied in this section involves a null aspectual head which has the characteristics of Perfect (in the sense of Comrie 1976; Parsons 1990; Smith 1997; Iatridou et al. 2003; Portner 2003). Under this analysis, I exploit the independently acknowledged difference between states and events concerning the inability of the latter to occur with a point-like Present Tense (in the sense of Taylor 1977; Bach 1986b; Dowty 1986; Hallman 2009). The 'perfect' morpheme must be inserted in these contexts to create a derived Resultant state (in the sense of Parsons 1990), creating the illusion of past tense in many interpretational contexts. While it is notoriously difficult to diagnose the difference between a simple past and a present perfect in many well-studied languages, I argue that it is possible to do so by careful use of adverbial tests and the setting up of specific discourse contexts. I will show from my fieldwork investigations that the unmarked eventive verbs in Saamáka show all the hallmarks of a perfect, and non of the hallmarks of a perfective. This section will demonstrate that the Perfect analysis is a more compelling analysis for the stative vs. eventive split in Saamáka than the Selection for Covert Perfective analysis, because all the readings of the bare verb form in Saamáka are accounted for under one mechanism (without any extra stipulations for non-default readings).

This section is organised as follows: Section 6.1 presents an overview of the characteristics of the Present Perfect. Section 6.2 demonstrates that unmarked verbs in Saamáka can have different perfect readings. My theoretical assumptions are laid out in Section 6.3, and the composition of Perfect in Sections 6.5 and 6.6. Section 6.7 discusses an apparent counterargument against the Perfect analysis. However, I demonstrate that this is actually an argument in favour of my analysis. In Section 6.8, non-default readings of the bare verb form are addressed.

6.1 Interpretations of Perfect

Perfect is a complex category with both temporal and aspectual features. Its exact specification is not always made clear. Comrie (1976, 52) defines Perfect as something which 'tells us nothing directly about the eventuality itself, but rather relates some state to a preceding situation'. The phenomenon that is called Perfect has been intensively studied in the literature. However, no uniform analysis of the Perfect exists. This is partly due to the fact that the characteristics of this phenomenon

differ cross-linguistically. Studies comparing the perfect in several Germanic (and Romance) languages show that the phenomenon that is called Perfect in these languages differs from language to language (see de Swart 2007; Rothstein 2008).

The Perfect has been analysed in the traditional Reichenbachian framework (see Klein 1994), assuming an Extended Now (see Portner 2003; Iatridou et al. 2003; Pancheva and von Stechow 2004; Rothstein 2008), or as expressing a Resultant state (see Comrie 1976; Parsons 1990; Musan 2001). In a Reichenbachian framework, Perfect expresses that time of situation precedes topic time and topic time is simultaneous with time of utterance i.e. TSit $<$ TT $=$ TU (Klein 1992; 1994). Extended Now theory assumes that Perfect expresses a time span i.e. the perfect time span (as in Iatridou et al. 2003). This time span has a left and a right boundary. For English, the right boundary ends at the time of utterance (for Present Perfect), and the left boundary is unspecified. The eventuality modified by Perfect falls within this perfect time span. The perfect time span is located with regard to topic time, which is indicated via a Tense feature on the auxiliary, and it cannot be positioned after this topic time (Portner 2003; Iatridou et al. 2003; Pancheva and von Stechow 2004; Rothstein 2008). The Resultant state analysis argues that Perfect creates a Resultant state from a previous eventuality. Parsons (1990, 231) postulates that 'because the state in question is a resultant state, the sentence requires for its truth that some event has happened prior to the time indicated by the tense of the sentence'. Thus, the eventuality from which a Resultant state has been created must be located prior to this Resultant state. Note that Resultant state differs from target state in the following way. 'If I throw a ball onto the roof, the target state of this event is the ball's being on the roof, a state that may or may not last for a long time. What I am calling the Resultant-state is different; it is the state of my having thrown the ball onto the roof, and it is a state that cannot cease holding at some later time' (Parsons, 1990, 235). In this study, I adopt Parsons' (1990) assumptions regarding Perfect and argue that Perfect is a derived state, or to be more precise a Resultant state.

Although, studies investigating the Perfect differ in the type of analysis they assign to it, they do agree about the meanings utterances with the Perfect can receive. Four different types of Present Perfect are classified in the literature (Comrie 1976; Smith 1997; Iatridou et al. 2003). Experiential perfect implies that the agent is in a state of a certain experience and it indicates a noncontinuous reading. Universal Perfect indicates a continuous reading and it specifies an eventuality which began at a moment prior to the time of utterance, but still obtains at the time of utterance.

The eventuality is true for each point in time of this interval. Perfect of recent past indicates temporal closeness. Perfect of result indicates a resultant state which has come about from a prior situation. The result of this prior situation still continues at the time of utterance. The table below presents the different readings of the Present Perfect in English (Comrie, 1976, 56-61).

Bill has been to America.	experiential perfect
I have been waiting for hours.	universal perfect
Bill has just arrived.	perfect of recent past
I have had a bath.	perfect of result

Klein (1994) argues that these different readings are not part of the core meaning of the Present Perfect, but they indicate a difference in distance between topic time and time of situation (see also Musan 2001; Zagona 2007). Cross-linguistically, there is a correlation between dynamicity and different perfect readings: stative verbs convey a universal perfect reading and eventive verbs an experiential perfect reading (Iatridou et al. 2003).

6.2 Perfect Readings in Saamáka

As pointed out in Section 5.3, unmarked eventive verbs can co-occur in a sentence with temporal adverbials denoting time of utterance, as in (35) which is repeated.

(35) *Nóúnóu nóo dí wómi dóu a dí kúnunu hédi.*
now NARR DET man arrive LOC DET mountain head
'The man has reached the top of the mountain now'.

It was demonstrated in Section 5.3 that a superficial analysis of (35) indicates that in Reichenbachian terms we are dealing with a Present Perfect i.e. TSit < TT = TT.

In Germanic languages, Present Perfect can combine with a temporal adverbial denoting the speech moment, as exemplified for Swedish[9] in (36).

(36) *Jag har klarat testet nu.*
1SG have pass test.DET now
'I have passed the test now'.

[9]Thanks to Björn Lundquist (personal communication) for providing this example.

Furthermore in certain Germanic languages (as Dutch), Present Perfect also combines with temporal adverbials denoting a past moment, as exemplified in (37).

(37) *In 1988 heeft Nederland het Europees Kampioenschap gewonnen.*
in 1988 has Netherlands DET european championship won
'In 1988, The Netherlands won the European Cup'.

The combination of Present Perfect and temporal adverbials denoting a past moment is not possible in English and mainland Scandinavian. This phenomenon is called the present perfect puzzle (see Klein 1992; Portner 2003 for discussion). Bare eventive verbs in Saamáka can combine with past temporal adverbials, as in (38) and (39).

(38) Context: Do you know what happened to me yesterday?
Éside mi ***feegéte*** *dí dóo u mi yabí-yabí, nóo híni wán*
yesterday 1SG forget DET door of 1SG open NARR every ART
sembe bi sa kó a mi wósu.
person PST MOD come LOC 1SG house
'Yesterday I forgot to lock my door, anyone could come in'.

(39) Context: When did Senni go to his vegetable garden this morning?
Senni ***gó*** *a dí féífi yúu neén goón.*
Senni go LOC DET five hour LOC.3SG ground
'At five o'clock, Senni went to his vegetable garden'.

Furthermore, eventualities expressed by unmarked verbs in Saamáka are relevant at the time of utterance, as exemplified in (40) - (42). Current relevance implies that an eventuality has a certain connection with the conversation topic under discussion. The consequence of a previous eventuality are still felt at time of utterance[10].

(40) It is cold in the room. The window is closed.
a. *%Di* ***yabí*** *dí fénse?*
2SG open DET window
'Did you open the window?'
b. *I bi* ***yabí*** *dí fénse?*
2SG PST open DET window
'Did you open the window?'

[10]Some of my consultants judge (40-a) to be grammatical. Others judge this sentence in this context ungrammatical. Those who judge (40-a) to be ungrammatical say that the use of the unmarked verb *yabí* ('to open') indicates that the window is still open. Each individual consultant is consistent in her/his judgement of these type of sentences in a similar discourse context. This was cross-checked with several similar examples.

(41) The window is open but A has not noticed that. A asks B: why is it so cold in the room? B replies:

a. *Mi* ***yabí*** *dí fénse.*
1SG open DET window
'I have opened the window'.

b. **Mi bi* ***yabí*** *dí fénse.*
1SG PST open DET window
'I (had) opened the window'.

(42) a. *Mi* ***lási*** *dí beéi um ma mé féndi én éti.*
1SG lost DET glasses FU.1SG but 1SG.NEG find 3SG yet
'I have lost my glasses, but I haven't found them yet'.

b. %*Dí beéi u mi a* ***lási*** *ma mi féndi én báka.*
DET glasses FU 1SG 3SG lost but 1SG find 3SG back
'My glasses were lost, but I found them'.

Perfect of recent past in Saamáka is usually indicated by an adverbial, as in (43) and (44). Here, the adverb *dyúnsu* ('just now') indicates that the eventuality happened right before the time of utterance.

(43) *Mi* ***seeká*** *wán físi dyúnsu.*
1SG clean ART fish just now
'I have just cleaned a fish'.

(44) *Dyúnsu mi* ***sí*** *Senni a woyowóyo nóo á dé a wósu.*
just now 1SG see Senni LOC market NARR 3SG.NEG BE LOC house
'I just saw Senni at the market, he isn't at home'.

Unmarked verbs in Saamáka can also be interpreted with an experiential perfect reading, as exemplified in (45) - (46).

(45) Context: Have you ever visited the Netherlands, since my last visit in 2000?
Sénsi mi bi sí i ai 2000 hén mi ***gó*** *wán pási*
since 1SG PST see 2SG LOC.DET 2000 NARR 1SG go ART time
ai 2003.
LOC.DET 2003
'Since I saw you in 2000, I have gone one time in 2003'.

(46) *Mi* ***nyá*** *hía pói.*
1SG eat many very
'I have eaten too much'.

Since stativity plays an important role in the temporal interpretation of a sentence, and stative verbs, in the default, are interpreted with a simple present interpretation, one might wonder whether stative verbs can convey a perfect reading. In the right discourse context, unmarked stative verbs convey a universal perfect interpretation, as illustrated in (47) - (48).

(47) *Híi mi líbi kaa mi* ***líbi*** *a See.*
all 1SG life already 1SG live LOC Pikinslee
'All my life, I have lived in Pikinslee'.

(48) *Sénsi dí yáa 2006 hén mi* ***dé*** *ku síki.*
since DET year 2006 NARR 1SG BE with ill
'I have been ill since 2006'.

To summarize, (35) and (38) - (48) have in common that they are interpreted with the interpretation that an eventuality occurred prior to the time of utterance. The eventuality is relevant at the time of utterance i.e. the discourse topic is such that it includes the eventuality. I postulate that unmarked verbs express a Resultant state of the embedded eventuality. Resultant state implies that we are talking about 'the state of e's having culminated' (Parsons 1990, 234). Unmarked verbs can convey a perfect of result, an experiential perfect, a perfect of recent past or a universal perfect reading. There is a correlation between the stativity of verbs and the temporal interpretation of a sentence. Eventive verbs convey an experiential perfect, perfect of recent past or perfect of result reading, while there are two options for stative verbs; a universal perfect interpretation, and a simple present interpretation. The possible interpretations of utterances containing unmarked verbs in Saamáka are summarized below.

indicate that e is relevant at TU		
express Resultant state of e		
		Optional interpretation
aktionsart sensitive	→ stative	simple present universal perfect
	→ eventive	experiential perfect perfect of recent past perfect of result

I postulate that Saamáka has a morphological null Perfect morpheme in its TAM paradigm[11]. In the next sections, I will discuss the syntactic composition of this morpheme and explain how it accounts for the difference in temporal interpretation between bare eventives and statives.

6.3 Assumptions regarding the composition of Perfect

I adapt Musan's (2001) semantics of the perfect and spell these out in terms of syntactic heads in a Kleinian (1992; 1994) structure. In Musan's decomposition, Perfect is a separate head. She follows Parsons (1990) in that Perfect expresses a Resultant state of a prior situation and it consists of three elements: Tense, Aspect and Perfect. All three components are functional heads and expresses a temporal ordering relation between two time denoting arguments. Perfect creates a Resultant state (Rstate_e) of a previous eventuality and it relates Rstate_e to time of situation. This temporal ordering relation is aktionsart dependent. Accomplishment and achievement verbs contribute a precedence relation (Rstate_e is located right after the eventuality has ended), while activity and stative verbs contribute a partial inclusion relation (Rstate_e starts a moment of an interval after the eventuality has begun). Aspect expresses an inclusion relation between topic time and Rstate_e. When topic time encloses Rstate_e, it gives rise to a perfective interpretation, while when Rstate_e encloses topic time, it gives rise to an imperfective reading. Tense expresses a precedence or

[11] An anonymous reviewer wondered whether the morphological null Perfect morpheme can combine with other TAM morphemes. In combination with the past morpheme *bi*, it conveys a past-before-past interpretation, as in (i), and in combination with the future morpheme *ó* a past-in-the-future reading, as in (ii).

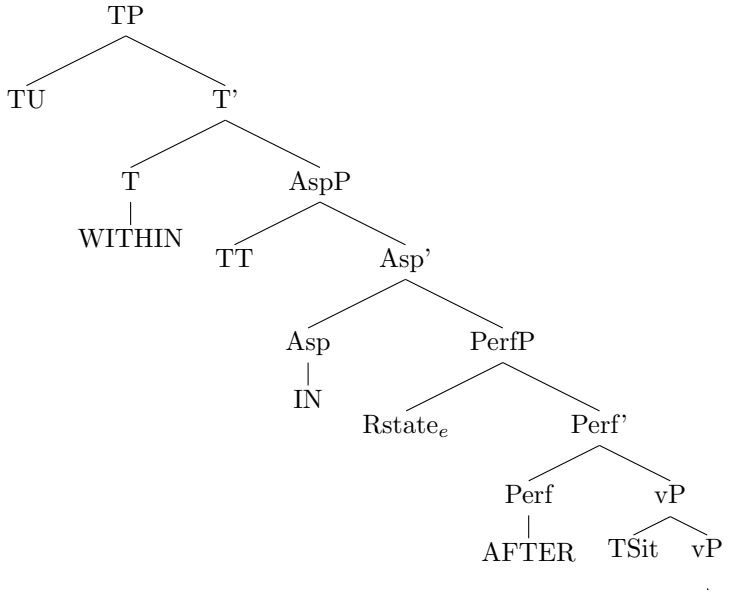
(i) *Éside dí Freddy kó a wósu nóo a wéi biká a bi* ***woóko*** *híi dáka.*
yesterday when Freddy come LOC house NARR 3SG tired because 3SG PST work all day
'Yesterday when Freddy came home, he was tired, because he had worked all day'.

(ii) Context: Discussing the work on the vegetable gardens. This specific extract concerns planting rice and what the women usually do.
Dí yoó ***paandí*** *alísi té i kabá i nángo ta lúku én ée a lépi no?*
when 2SG.MOD plant rice until 2SG finish 2SG IMP.go IMP look 3SG if 3SG ripe Q
'When you will have planted the rice completely, you go and check regularly if it is ripe, don't you?'

simultaneous temporal ordering relation between time of utterance and topic time which is interpreted as past, present or future. The syntactic structure of the Present Perfect is presented in (49).

(49) a. Henry has built a house (Demirdache and Uribe-Etxebarria, 2000, 168).

b.



6.4 The temporal interpretation of modal sentences

Before I continue with the decomposition of the Perfect, I would like to address an extra argument in favour of the assumption that Saamáka has a morphological null Perfect morpheme in its TAM paradigm. This is provided by the temporal interpretation of sentences containing a modal (in the sense of Condoravdi 2002; Laca 2008). When a modal morpheme is interpreted with a circumstantial interpretation, the temporal orientation of the modal evaluation time has a future interpretation, whereas an epistemic reading gives rise to a past temporal orientation of the modal evaluation time, as exemplified for the necessity modal *musu* in (50) and (51) respectively.

(50) Context: In order to be on time for an appointment
Mi musu ***dóu*** *bifó féífi yúu a fóto.*
1SG MOD arrive before five hour LOC Paramaribo
'I must arrive before 5 o'clock in Paramaribo'.

a. EvT = Future

(51) Context: The speaker is expecting Freddy to come, someone knocks on the door. The speaker says:
Dí dóo dí ta náki dé Freddy noómo. A dóu hén musu DET door DET IMP hit BE Freddy continuously 3SG arrive 3SG MOD ***dóu***.
arrive
'The person knocking on the door is Freddy. He has arrived, he must have arrived'.

a. EvT = Past

In both sentences, the achievement verb *dóu* ('to arrive') is modified by the necessity modal *musu*. There is no other overt TAM marking present in these sentences except for the modal. The question that has to be answered here is: How can this difference in the temporal orientation be accounted for? Cross-linguistically, it is quite common for epistemic modals to combine with the Present Perfect to trigger a past orientation of an eventuality embedded under a modal (see Condoravdi 2002; Laca 2008; Eide 2011). To explain the difference in temporal orientation between (50) and (51), I postulate that the morphological null Perfect morpheme is present in the underlying structure of (51). Its presence gives rise to the past temporal orientation of the embedded eventuality. The morphological null Perfect morpheme is absent in the underlying structure of (50). The future temporal orientation of this clause is due to the modal itself: modal morphemes expand the modal evaluation time into the future (in the sense of Palmer 2001; Condoravdi 2002; Hacquard 2006). This difference in temporal orientation is completely expected under the hypothesis that Saamáka possesses a morphological null Perfect morpheme.

To conclude, (50) and (51) not only demonstrate that verbs in Saamáka have different temporal interpretations depending on the modal context in which they occur (circumstantial vs. epistemic), but they also provide extra evidence in favour of the morphological null Perfect hypothesis.

6.5 Accounting for the relation to dynamicity

The Perfect analysis exploits the idea that states and events have different semantics. The former are true at a moment, while the latter are true at a subinterval of a moment. States do not have the property of temporality, whereas events do. As a consequence, events are unable to combine with a point-like Present Tense (see

Prior 1967; Taylor 1977; Bach 1986b; Dowty 1986; Hallman 2009). In other words, a point-like Present Tense is restricted to only combine with stative predicates. Eventive predicates need to be embedded by a state deriving functional head before they can combine with Present Tense. This functional head can be a modal, a perfect or some other operator. When eventive verbs are unmarked in Saamáka, the 'perfect' morpheme is inserted. It creates a derived Resultant state, as well as that it give rise to a past interpretation of the eventuality.

In English, for example, Present Tense is restricted to combine only with states, as in (52). Events, when modified by Present Tense, are interpreted with a habitual interpretation, as illustrated in (53). Habitual aspect creates a derived state (in the sense of Parsons 1990).

(52) Max is here (Hallman, 2009, 7).

(53) Max runs (Hallman, 2009, 7).

English Present Tense is momentary and, consequently, constraints are placed on the type of complement it modifies. Events need a subinterval of a moment to become true and, therefore, they cannot be true at a moment. As a consequence, events are coerced into a state when combined with Present Tense (which gives rise to a habitual interpretation). States have no internal structure and can combine with Present Tense without any problems (which gives rise to a simple present interpretation).

Turning to Saamáka, I postulate that the language possesses a covert Tense head expressing an identity temporal ordering relation between topic time and time of utterance, or, TU = TT, expressing Present. As in English, Present Tense is momentary and it is, thus, constrained to embed only stative predicates. Due to their semantics, events cannot combine with a point-like Present Tense. In order for eventive verbs to combine with Present Tense, they have to be modified by a state deriving functional head (like modals or perfect). Perfect creates a Resultant state (in the sense of Comrie 1976; Parsons 1990; Musan 2001). Rstate_e satisfies the stativity requirement of Present Tense and can, thus, be taken as complement of a momentary Present Tense. A feature of the Perfect is that it gives rise to a past interpretation of the eventuality. In other words, Perfect inherently encodes past-shifting of the eventuality. The presence of the morphological null Perfect explains without any additional stipulations the past interpretation of bare eventive verbs in Saamáka. Note that eventive verbs only require a 'perfect' auxiliary in their underlying structure when this is forced by the presence of the Present Tense head. The story for stative

verbs is slightly different. Their semantics are such that they can, unproblematically, combine with a momentary Present Tense. This explains why bare stative verbs have a simple present interpretation. Although the Perfect is forced on unmarked eventive verbs in the Present Tense and not on stative verbs, there is nothing preventing stative verbs to combine with it in principle. In fact, I predict the possibility of universal perfect readings of statives (see (47) - (48) in Section 6.2) alongside the default simple present ones. Please note that the universal perfect reading for statives is not accounted for straightforwardly under the Winford-style account. This is summarized below.

verb type	Tense		
eventive	PRESENT	PERFECT	$e <$ TU
stative	PRESENT		$e \bigcirc$ TU

6.6 Decomposition of the morphological null Perfect morpheme

The morphological null Perfect morpheme is built up from three components: Tense, Aspect and Perfect (in the sense of Parsons 1990; Musan 2001). All three components are functional heads which denote a temporal ordering relation between two arguments. Perfect creates a Resultant state of an eventuality and relates Rstate_e to time of situation. Aspect denotes an inclusion relation between topic time and Rstate_e with the interpretation Imperfective. Tense expresses an identity relation between time of utterance and topic time with the interpretation Present.

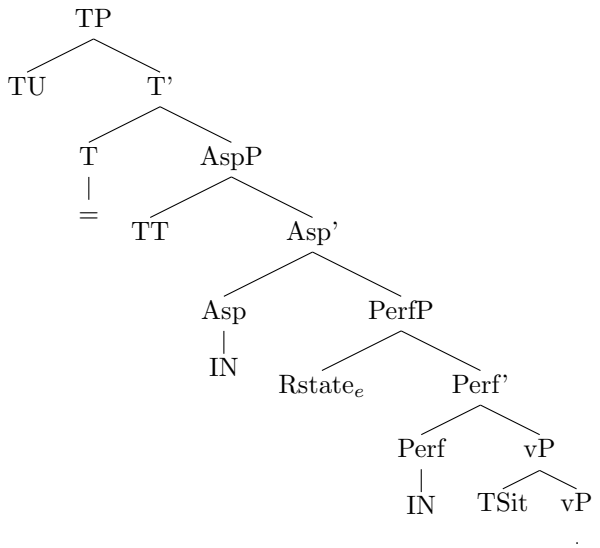
Decomposition of the morphological null Perfect
Rstate_e partly included in TSit
Rstate_e IN TT = TU
$\Rightarrow$ this entails that e < TU

The phrase structure of (1), which is repeated below, is exemplified in (54).

(54) a. *Dí womímíi wáka a mátu.*
DET boy walk LOC forest

'The boy has walked in the forest'.

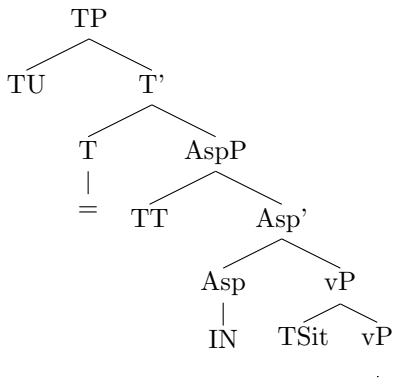
b.



Recall that stative verbs already fulfill the stativity requirement of Present Tense and, therefore, do not need to combine with the morphological null Perfect morpheme. The phrase structure of (2), which is repeated below, is presented in (55). However, nothing prevents stative verbs to combine with the Perfect morpheme. This combination results in universal perfect interpretation and the phrase structure of (48), which is repeated below, is presented in (56).

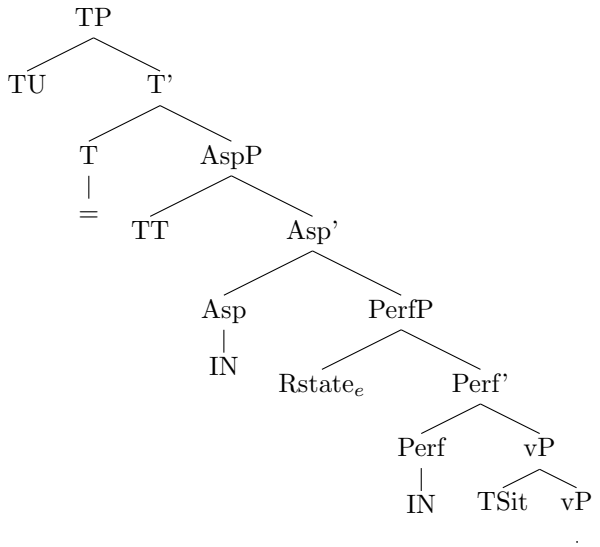
(55) a. *Dí wómi sábi néngétóngo.*
DET man know Sranan
'The man knows Sranan'.

b.



(56) a. *Sénsi dí yáa 2006 hén mi dé ku síki.*
since DET year 2006 NARR 1SG BE with ill
'I have been ill since 2006'.

b.



6.7 Narratives: A counterargument against the null Perfect analysis?

This section discusses a possible argument against the Perfect analysis. I focus on discourse data and demonstrate that eventualities expressed by the unmarked verb form can occur as sequentially ordered events. Since Perfect expresses a Resultant state of a prior eventuality and states cannot move a narrative forward in time (see Hinrichs 1986; Kamp and Reyle 1993), the assumption that Saamáka has a morphological null Perfect morpheme might be problematic. However, it is argued that other elements in the clause indicate a sense of progression in time, and it is shown that the data presented in this section provides additional evidence for the Perfect analysis.

In narratives, events and states behave differently. Events create a new topic time and, as a result, a feeling of progression is created. States, however, do not mark another step in a narrative. Their topic time is anchored to the topic time of the previous eventuality (see Hinrichs 1986; Kamp and Reyle 1993). This is illustrated for English in (57).

(57) Jameson entered the room$_{e_1}$, shut the door carefully$_{e_2}$ and switched off the light$_{e_3}$. It was pitch-dark around him$_{s_1}$ because the Venetian blinds were closed$_{s_2}$ (Hinrichs, 1986, 68).

Previously in this section, I argued that Saamáka has a morphological null Perfect morpheme which is obligatory present in the underlying structure of the clause when eventive verbs are morphological unmarked for TAM. Perfect expresses a Resultant state, and thus, unmarked eventive verbs in Saamáka are (derived) states. Stative eventualities are not typically sequentially ordered. Thus, it would be expected that unmarked eventive verbs in Saamáka cannot be embedded by the morphological null Perfect morpheme if they indicate temporal development of a narrative. This expectation is not borne out. The morphological null Perfect morpheme does appear in narratives. However, it is not the predicate that gives a sense of progression, but the narrative marker *hén*. *Hén* is a 'conjunction used at beginning of clause to indicate another step in the narrative'[12], and it introduces a new anchor time. It relates two stative eventualities and places them in a subsequent relation which results in a feeling of temporal progression. Thus, not the predicate, which is a Rstate$_e$, indicates a new temporal step in the storyline, but the narrative morpheme *hén*. The language also makes extensive use of the conjunction *nóo* which introduces an explanatory clause[13], the phrase *té u kabá* ('until we have finished') which expresses the completion of an eventuality, and the phrase *té u kumútu* ('until we have come out') which expresses the transition to another eventuality. The usage of these elements is illustrated in (58).

(58) a. *Mi gó seei gewoonu gó a goón déndu gó a pandási*
1SG go self normally go LOC vegetable garden go LOC fieldwork
té u kumútu kó sindó bói sondí nyá, kó píi pindá.
until 1PL come.out come sit cook thing eat come gather peanut
'I went, just went to my vegetable garden to work on the field until we came, sat down and cooked something to eat, we came to gather peanuts'.

b. *Hén u kó a gangása kó butá fáya a gufálu té*
NARR 1PL come LOC open hut come put fire LOC bale-fire until
u kabá.
1PL finish

[12]This description is taken from the Summer Institute of Linguistics English-Saamáka dictionary at http://www.sil.org/americas/suriname/Saramaccan/English/SaramEngDictIndex.html.

[13]This description can be found in the Summer Institute of Linguistics English-Saamáka dictionary at http://www.sil.org/americas/suriname/Saramaccan/English/SaramEngDictIndex.html.

'Then we went to the hut to make a bale-fire until we were done'.

c. *Nóo hén u kó.*
NARR NARR 1PL come
'Then we went'.

d. *Nóo hén di u kumútu.*
NARR NARR when 1PL come.out
'Then when we came out'.

e. *Hén kó gó a kiíki gó ba wáta u bebé té u kabá.*
NARR come go LOC creek go scoop water FU drink until 1PL finish
'Then we went to the creek to fetch water to drink until we were done'.

f. *Hén u kó boóko baákáúwíi.*
NARR 1PL come break type of leafy vegetable
'Then we collected baakauwii'.

g. *Hén u kó a gandá.*
NARR 1PL come LOC village
'Then we went to the village'.

A close examination of Saamáka narratives reveals that the language has many instances of conjunctions *hén* and *nóo*, and the completion phrase *té i kabá* ('until you have finished') in discourse. The language, as expected, relies more on these elements than languages like English and Dutch. Since unmarked verbs in Saamáka are (derived) states, they cannot progress a narrative in time. The task of *hén* and the completion phrase is to give a sense of progression in time. As a result, the narrative data presented in this section actually support the morphological null Perfect analysis.

6.8 Explaining non-default temporal interpretations

Section 2 presented examples in which unmarked eventive verbs have a future interpretation and unmarked stative verbs a past interpretation. This section will demonstrate how these interpretations can be accounted for under the Perfect analysis.

In temporal 'when' clauses and in conditionals, unmarked eventive verbs are interpreted with a future interpretation, as the repeated examples illustrate.

(59) *Té i tooná kó nóo mi ó skífi í biífi aki kabá.*
when 2SG return come NARR 1SG MOD write DET letter here finish
'When you come back I will have finished writing this letter'.

(60) *Ée i butá wán stónu ai tási aki déndu nóo á*
if 2SG put ART stone LOC.DET bag here in(side) NARR 3SG.NEG
ó boóko.
MOD break
'If you put a stone in this bag, it won't break'.

It is important to stress that eventive verbs only get the morphological null Perfect morpheme added when forced by the presence of the Present Tense head. When eventive verbs are embedded under a modal or other state deriving operator no such coercion is necessary, because these operators also create a derived state of the embedded eventuality, and thus, fulfill the stativity requirement of Present Tense. I postulate that in (59) and (60), other (state deriving) operators are present. In the former, the adverbial *té* (='when') establishes that the eventuality is not located at the time of utterance, but at some contextually relevant future time. This adverb establishes a contextually relevant anchor time which does not equal the time of utterance. Consequently, the temporal ordering relation under Tense does not express a momentary Present Tense, and the presence of the morphological null Perfect morpheme is not forced in the underlying structure.

In (60), the conditional is the operator which makes the presence of the null Perfect morpheme unnecessary, while the forward shifting effect is predicted by the semantics of the conditional (in the sense of Condoravdi 2002).

In (61), which is repeated below, a stative verb has a past interpretation.

(61) a. *Yoó dá u to? Únfa dí gaánwáta bigí u kó únfa*
3SG.MOD give 1PL right how DET flood start FU come how
i dú.
2SG do
F: 'You will give us something, right? When the flood started to come, what did you do?'

b. *Mé bi dé akí.*
1SG.NEG PST BE here
S: 'I was not here.'

c. *Oh yá bi dé akí?*
oh 2SG.NEG PST BE here
F: 'Oh, you were not here?'

d. *Mi dé a Semoisi.*
1SG BE LOC Semoisi
S: 'I was in Semoisi.'

e. *Oh yá bi dé akí nó?*
oh 2SG.NEG PST BE here RQ
M: 'Oh, you were not here?'

f. *Nóno mi dé a Semoisi. Di a kó a dóu té.*
no 1SG BE LOC Semoisi when 3SG come 3SG arrive until
S: 'No, I was in Semoisi. When it came, it reached up to there.'

This can be explained by the presence and function of the morpheme *bi*. This morpheme is a situational pronominal which establishes an anchor time (in the sense of Partee 1984; Enç 1987). This anchor time is restricted to be situated prior to the time of utterance. Once the anchor time has been established, all eventualities are anchored to this anchor time and the overt presence of *bi* is no longer necessary. In other words, a past discourse context is created and all bare eventualities are located at this past time. As a result, a sentence containing an unmarked stative verb can also be interpreted with a past interpretation. On an additional note, when storyline A is interrupted by another storyline and storyline A is continued afterward, the anchor time of storyline A needs to be re-established (and this is done by the presence of the morpheme *bi*)[14].

The default temporal ordering relation under Tense expresses Present Tense, or, AT = TT = TU. When operators as *té* (='when') or *bi* appear in the discourse, their function is to establish a new anchor time. This anchor time is either situated prior to the time of utterance (in the case of *bi* and *té*), i.e. AT = TT < TU, or after the time of utterance (in the case of *té*), i.e. AT = TT > TU. In all these cases, the anchor time equals the topic time, but not the time of utterance. Consequently, the temporal ordering relation under Tense does not express a point-like Present Tense.

This section discussed non-default readings of the bare verb form and it was shown how they can be accounted for under the Perfect analysis. A Winford-style analysis, however, must assume that the interpretations of bare verbs that are not past for events and not present for states are departures form the default that must be explained in functional and/or pragmatic ways. The Perfect analysis attempts to account for all possible readings of the bare verb form with the same mechanisms, but showing that the bare verb form independently does have all of these possible interpretations.

[14]For a detailed discussion of the morpheme *bi*, I refer the interested reader to van de Vate (2011).

6.9 Summary

This section discussed how the Perfect analysis accounts for the temporal interpretation of the bare verb form in Saamáka. This analysis exploits the idea that the internal semantics of stative and eventive verbs differ. The former are true at a moment, while the latter need a subinterval of a moment to become true. It was argued that Saamáka has a momentary Present Tense which requires a stative complement. In other words, eventive verbs need to be embedded by a state deriving functional head before they can combine with Present Tense. This requirement triggers the presence of the morphological null Perfect morpheme in the underlying structure when no other (overt) operator is present to fulfill it. The past interpretation of unmarked eventive verbs follows from the composition of the Perfect, while the present interpretation of stative verbs follows from their ability to, unproblematically, combine with a momentary Present Tense. The perfect analysis provides a unified account of stative and eventive verbs with regard to their temporal interpretation by simply resorting to independently-motivated assumptions regarding the semantic nature of these verbs. It provides a natural account of why the temporal distinction splits along the stative vs. eventive divide rather than according a boundedness criterion (as proposed by Winford for Sranan).

7 Conclusion

This paper discussed morphological unmarked verbs in Saamáka and aimed to explain the difference in temporal interpretation between sentences containing a stative verb (present) and those containing an eventive verb (past). The data discussed in this paper is based on fieldwork for which questionnaires were developed that specifically targeted simple past, perfective and perfect discourse contexts to tease apart the temporal interpretation of utterances containing a bare verb form. It was demonstrated that the constructional flexibility of the unmarked verb form in Saamáka is very difficult to account for under the assumption that eventive verbs select rigidly for a null Aspect head with the interpretation 'perfective'. My fieldwork findings established that the interpretation of bare eventive verbs matches with those of a Present Perfect. Therefore, I postulated that in order to elucidate the characteristics of the morphological unmarked verb form, Saamáka has a morphological null Perfect morpheme in its TAM paradigm.

The perfect analysis provides a natural account of the stative vs. eventive split found in Saamáka. This analysis is more appealing to explain the Saamáka data

than a perfective analysis in that it is able to cover more data without any additional stipulations. Distributionally, the bare verb form fits in with what is known of the Present Perfect cross-linguistically. Under a Winford-style perfective analysis, only the default interpretation and distribution (i.e. present for states and past for eventives) is accounted for, and stipulations are required in order to get the right truth conditions for non-default interpretations and distributions.

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