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VERB SERIALIZATION AND PREDICATE COMPLEMENTATION IN SARAMACCAN

by

Francis Byrne, Jr.

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF LINGUISTICS
In Partial Fulfillment of the Requirements For the Degree of
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1985

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As members of the Final Examination Committee, we certify that we have read
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PREFACE

When I first decided to study elements of Saramaccan syntax, I was a bit naive about all that it would entail. I knew nothing about the numerous difficulties involved with working in a rain forest nor did I have any knowledge of the political situation within Suriname. On my first trip to the country, both of these deficiencies were soon made readily apparent. During a short three-day journey to the northern part of Afobaka Dam, I was bitten by a still undetermined creature whose venom, thankfully, was not lethal. Also during the trip, many of my Surinamese acquaintances tended to quiz me about their country; to my embarrassment, I could answer few of their questions. This prompted many of these Surinamese to give me a crash course on the recent history of the country and to offer excellent advice about where not to go and what not to do. This information was to serve me well during the later tense and tragic political developments.

Concerning the fieldwork, the first trip to Suriname was largely an orientation period; I developed a "feel" for Saramaccan, but, as is also usually true, more questions were raised than were answered. The second trip was more systematic in that I then had more specific objectives and definite questions that I hoped could be answered. It was
not until the third trip to Suriname, however, that I made the first major discoveries about Saramaccan and, by implication, about creole languages. In fact, these discoveries set the tone for the remaining trips to Suriname and led to the analyses in this work.

There were numerous individuals and organizations who aided me in the successful completion of this present project. To risk repeating an overused cliché (which has nevertheless been found to be accurate in this case), the lack of any of the assistance could have led to the suspension of the project.

In Suriname, Naomi Glock, George Huttar, Robert Mantell and Catherine Rountree of the Summer Institute of Linguistics graciously gave of their time to advise and introduce me to Saramaccan and to help plan and coordinate trips to the interior. Additionally, I am greatly indebted to Sambrie Koëse, my assistant in Suriname who efficiently aided me during all trips to the country. Finally, thanks go to Ch. Eersel, Chancellor of the University of Suriname.

At the Universidad de Oriente, Venezuela, which was my home base during the Saramaccan project, I am grateful to many of my colleagues for their encouragement and insightful comments. These include Anilio Abadia, Henri Bourgeois, Gordon Hart, Djalil Larbi, J.S. Lárraga, Abdias Moreno and Andrés Romero. I am additionally grateful to many of the officials of the Universidad de Oriente for their support
during the fieldwork and while I was preparing the many drafts of this work. These include Ezequiel Salazar, Chairman of the Departamento de Idiomas Modernos; Jorge Vivas, Dean of the Escuela de Humanidades y Educación; Luis Acuña, Dean of the Núcleo de Sucre; Hernán Córdova, Director of the Consejo de Investigación; and Gerónimo D'LaCoste, Academic Vice-Rector of the Universidad de Oriente.

Others who commented on or offered input to my analyses are Richard Demers, James Gair, Ian Hancock, John Holm, Eloise Jelinek, Hilda Koopman, Thomas Markey, Mark Sebba, Pieter Seuren, Norval Smith and Herman Wekker. Thanks also go to Richard Oehrle for his extensive, insightful and penetrating comments on the penultimate draft of this work. To Derek Bickerton and Adrienne Lehrer, there are no words to express my gratitude. They consistently and generously offered advice, recommendations and encouragement throughout the entire project. There were instances when my spirits took a downward turn and the only motivation I had to continue were their words of support.

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Finally, I offer loving and appreciative gratitude to my wife, Julia, and son, Frankie, for their patience and understanding during the long and tedious process and to my parents for their encouragement and unflagging confidence that I would finish the project.

Francis Byrne
Tucson, May 1985
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ABSTRACT

One of the most striking features of Saramaccan syntax is the almost categorically finite status of its sentential complements and serial verbs. In fact, a study of these constituents in the language is to primarily observe how characteristics of finite sentential structures are beginning to be lost in certain instances.

The first three chapters are largely preliminary in nature. Chapter I briefly introduces Saramaccan, discusses the Government and Binding grammatical model and outlines why it is superior to competing approaches. This chapter also defines many of the pertinent concepts needed for the analyses. Chapter II looks at tense, modality and aspect markers and determines when a [+Tense] value is possible for a clause. In this context, we find that the complements of perception verbs are finite. The remainder of Chapter II and all of Chapter III determine the dislocation patterns and identifying parameters of various categories.

The next three chapters investigate serial structures. In Chapter IV, it is found among other things that complementizer-like fu (from for) and taa 'say, that' are main verbs. Chapter V analyzes the Instrumental, Benefactive and Dative serials. We conclude that the Instrumental and Benefactive are contained within finite
clauses, while the Dative serial verb is either an infinitive or has been deleted. Finally in Chapter VI, the many serials discussed exhibit a wide range of features which lead us to believe that some are fully finite, others are infinitives, and one has reanalyzed to another category.

It is claimed in the last chapter, based on the evidence, that there is really no difference between sentential complements and serial structures; both are or were finite clauses. In addition, based on the nature of serials reported in the literature for West African languages, Saramaccan appears to be significantly different. This leads to the conclusion that serials spontaneously emerged in Saramaccan during the creolization process rather than being a continuation of such structures from West African languages.
CHAPTER I

THE ISSUES, THE MODEL AND THE DATA

Since at least the seminal Mona, Jamaica, conference in 1968 on pidgins and creole languages and the 1971 publication of the proceedings (Hymes 1971), scholars have recognized that the processes of pidginization and creolization, which may produce pidgins and creole languages, are the result of a unique set of circumstances. Pidginization can be defined as arrested second language learning where the target code is for the most part unavailable as a model for whatever reason.¹ A pidgin occurs when the inhabitants of a multilingual community reject any of the members' native languages as the medium of communication and the group as a whole must rely on a limited knowledge of some all but inaccessible outside

¹ This definition of 'pidginization', and the related definitions of the terms 'pidgin', 'creolization' and 'creole', have originated from a variety of different sources. They are thereby composites, but are designed to be compatible with the ideas found in the following papers or volumes: Alleyne (1980), Anderson (1979), Crawford (1978), Bickerton (1976; 1977a,b; 1979; 1981; 1984), Bickerton and Odo (1976). DeCamp and Hancock (1974), Hall (1966), Hymes (1971), Muysken (1981b), Schumann (1978a,b) and Valdman (1977). For additional details, see these references.
language for intergroup intercourse. Creolization, for its part, is the process of first language acquisition when the children born into a community of pidgin speakers adopt that form of speech as their native or first language. A possible result of creolization is, of course, a creole language. Thus, as noted by Muysken (1981a), a creole can properly be considered a 'natural' language in the Chomskyan sense of the term and, in contrast to a pidgin in its early stages, can be used to say anything one wants in any given situation (Traugott 1976: 61).

Also gaining general consensus at the Mona conference was the recognition that creole languages, no matter where they formed or who was involved in their formation, exhibit uncanny similarities which could not have resulted from chance. The implications of these similarities in the formation of creoles are that these languages must have either a.) had a common ancestry and the similar features are the diachronic continuation of a particular language group or certain areal phenomena, or b.) are somehow an integral expression of the creolization

2. See Footnote (1).
3. See Footnote (1).
4. See Footnote (1).
5. See for example DeCamp (1971: 19).
process. Both possibilities have their theoretical expression in contemporary creole linguistics. The proponent of the most extreme form of the first approach, hereafter known as the Substrate Theory, is Mervyn Alleyne (1971a,b; 1979; 1980a,b) who contends that at least the Atlantic creoles have a large measure of continuity from African languages. The spokesman for the second, known as the Universals or the Bioprogram Theory, is Derek Bickerton (1974; 1977b; 1979; 1981; 1984) who holds, in a highly abridged form, that the grammars of the most radical creoles (i.e. those that differ most drastically from their superstrates) come closest to approximating the unmarked

6. As far as is known, Hancock (1971) first coined the term. It refers to those creoles found in West Africa, the Caribbean and eastern North and South America.

7. Tom Markey (p.c.) notes that in the field of cognitive biology (which has its roots in Austria and Germany), there is a concept similar to Bickerton's Bioprogram and is called the Ratiomorpher Apparat 'apparatus of the ratiomorph'. Riedl and von Robert Kaspar (1981), as explained by Markey, claim that when a number of languages are in contact, a new language, different from any of the original languages, will emerge.

8. Bickerton (1984) coined the term and it refers to a creole which formed under extremely deprived conditions. From the studies of Baker (1982, 1984a,b), the most important of these conditions are the incipient creole speakers' access to the superstrate language (the socially dominant language in a language contact situation) within the creole situation and the number and linguistically diversity of new substrate arrivals (those who speak what are considered a socially inferior language or languages within a contact situation) during creole formation. For more thoughts on the matter, see the above references and Byrne (1983, 1984d, forthcoming).
state of our innate, genetically endowed faculté de langage.

1.1 Saramaccan

A language which could help in distinguishing which theory is correct is Saramaccan (SA), a creole spoken by the approximately 20,000 members of the Saramaka Bush Negro tribe of the central jungle interior of Suriname (formerly Dutch Guyana). This language, through a combination of the particular events in its history (see Price (1976, 1979, 1983, forthcoming); Bickerton (1984); Byrne (1984d, forthcoming)) and its relatively isolated state until, perhaps, the 1960s, has not been subjected to anything

9. I generally assume the explanation of markedness and the related notion of universal grammar (UG) as explained in Chomsky (1981: 7-16). The only exception is that I adhere to one specific core grammar which contains the unmarked parameters of UG rather than the open-ended and indefinite (but finite) number of core grammars that Chomsky advocates. This of course implies that there is just one biologically-endowed UG. Refer to Bickerton and Byrne (forthcoming) for more details.

10. It should be emphasized that the term 'Bush Negro', and its Dutch counterpart Boschneger, is the name preferred by these descendents of runaway slaves who live in the Surinamese interior and who are organized into the various tribal units known as the Saramaka (or Saramaccans), the Djuka, the Matawai, the Aluku (or Boni), the Paramaka and the Kwinti. There is therefore nothing at all derogatory about the term. See Price (1976:2-3) for more details.

11. Naomi Glock, in an evaluation of the NSF grant proposal for the Saramaccan project on which this text is based, succinctly and insightfully details the extent of outside contact with the Saramaka since their formation as a
near the same degree of external linguistic influences which a large percentage of other creoles have experienced and which have resulted in rapid and dramatic change in many instances. For these and other reasons, SA may best

... It should be pointed out that since [the] very early days Saramaccan men have made periodic trips to the coastal area of Suriname to find work. Furthermore, the Saramaccans were reached by Moravian missionaries over 100 years ago and they used almost exclusively Sranan Tongo (the coastal creole and lingua franca of Suriname - my insertion) in all their work. As soon as the transistor radio became available, Saramaccans adopted this device into their culture. Sranan Tongo and Dutch are the main languages used on the radio. Schools were introduced into Saramaccan villages many years ago. The medium of instruction is exclusively Dutch. The effect of this is that many of the younger men now speak some Dutch as well as Saramaccan.

After having said all this, ... even though Dutch and Sranan Tongo have influenced Saramaccan, they have not (my emphasis) caused a destabilization of the language. Saramaccans live in the jungle in their own self-contained communities. They don't have to interact with a dominant culture on a day-to-day basis. Other language groups are located many miles away. So, their culture and language have developed somewhat according to their own internal dictates ...

12. Such change is usually the result of what is known as 'decreolization'. Briefly, this process has resulted (and presumably could result again given the same conditions) when there was any kind of weakening of the intense stratification which existed in creole societies. One such example was the emancipation of the slaves throughout the Americas (including the Caribbean) in the previous century. In this and other cases when stratification broke down, there was more contact between the creoles (i.e. those who speak a creole language) and the dominant class (the former masters in a slave
exemplify those structures and elements which are representative of and syntactically define the creolization process. In other words, SA could prove to be invaluable in determining the initial state of a radical creole since as Alleyne (1979: 91) observes, SA "may represent the oldest layer of creole known to us."

While Bickerton (1981: Chapter III) and Markey (1982) have detailed approximately twenty disparate creole features which are similar if not identical in a sample of creoles from around the world, still to be accomplished is an in-depth account of the nature of the syntactic rule systems, in the sense of Chomsky (1981, 1982: 4), of a radical creole (see Footnote (8)). If one holds to the conviction that the similar features of creole languages are a result of similarities deriving from the nature of the originating process (and the two main creole theories today have developed from that premise), then there should also be a common base in the syntax of these languages. Thus the key to the syntactic core of creoles may reside in SA if, in

situation). With contact, the creole speakers began to gradually but continually incorporate features (or their perception of the features) from their former masters' language (called the superstrate or standard language in current terminology - see Footnote (8)). Eventually many of the original creole features were forgotten, with most then speaking something not creole but yet again not the standard either. See Bickerton (1975, 1980), Byrne (1982a, 1983, 1984a,b), Cooper (1979), Day (1974) and Rickford (1974, 1979), among others, for more details.
fact, Alleyne is right in his observation that this language represents "the oldest layer of creole."

Although various scholars have done excellent work on SA, in-depth treatments of the syntax are still lacking. To rectify this situation, we will generally focus ourselves in this text on a synchronic description of sentential complementation and verb serialization. We have chosen to look at sentential complements in SA because this area of grammar is basic to any theory of language or language-type and by its nature, must not only deal with the important components and distinctions of SA, but additionally must include an account of the major rule systems found in contemporary syntactic models. We have also included verb serialization in the discussion since such structures are integral to the arguments of both major creole viewpoints - the Universals and Substrate Theories. Let's therefore review the principle claims of these theories concerning complementation and serialization in these languages.

13. Work on SA has included two dictionaries compiled by De Groot (1977, 1981), discourse analyses (Glock 1982, in press; Glock and Levinsohn 1982; Grimes and Glock 1970; Rountree 1980), and phonological or orthographical studies (Rountree 1972a,b; Voorhoeve 1959, 1961; Voorhoeve and Domicie 1963). Syntax is limited to introductory remarks from a tagmemic perspective (Glock 1972a,b) and two excellent pedagogical grammars prepared by the Summer Institute of Linguistics (SIL) (1977) and Rountree and Glock (1982), respectively.
Bickerton (1981) contends that in initial creolization (i.e. the formative stage of creole languages), sentential subordination consists simply of directly embedding finite sentences (Ss)$^{14}$ within other finite Ss without any structural change at D-structure (consult reference for details). He additionally claims that "complementizers"$^{15}$ in at least the deeper forms of creole are actually verbs. If the first observation is correct and if SA is the deepest form of creole available, 

$^{14}$ As a working definition of 'finite S', we mean that the proposition contained within a S has a specific temporal orientation. This concept will be discussed in more depth in Chapter II.

$^{15}$ 'Complementizer' is a categorial designation which applies to those formatives that are base-generated in COMP positions, are selected by a higher verb, and generally allow dislocation of constituents from the S which they precede. See Chapter IV for a more in-depth treatment.

$^{16}$ The category 'verb' presupposes the ability to subcategorize, θ-mark, govern, Case-mark, and to have a finite or nonfinite status (see Footnotes (14) and (17)). From other viewpoints, a 'verb' has the features [+V, -N] and is hierarchically a terminal node, which is lexical, or X₀ in X-bar notation. Also possible are language-specific properties which have to be individually defined for each separate language. In SA, the specific features of a verb include the ability to be overtly tensed, to have copies appear in COMP positions, and NP complements which have a distinctive dislocation pattern. Since the concept of a 'verb' and the above properties are integral to the analyses in this text, they will be further developed and expanded throughout, especially in Chapters II and III.
then we should find no infinitives\textsuperscript{17} in the language, or, if there are infinitives, then we might expect some evidence that they were once finite. Concerning verbal "complementizers", if 	extit{taa} 'say, that' and 	extit{fu} 'for' in SA (the very rough equivalents of, for example, \textit{that} and \textit{for} in English) are verbs, then they should exhibit verbal characteristics as do other verbs, among which is the possibility of overt tense (hereafter TNS) marking. However, as Stowell (1981) and Muysken (1984) point out, TNS often appears with complementizers in some languages (see for example Koopman and Lefebvre (1981, 1982)). If 	extit{taa} 'say, that' and 	extit{fu} 'for' are truly verbs, then they would have to exhibit other verbal features as well for the claim to be convincingly substantiated.

As an integral part of the Substrate Theory (see p. 3), Alleyne (1980: 156) claims first that SA is the most African-like of the Atlantic creoles. Second, verb serialization in these creoles is the result of a direct transference from West Africa in so far as "the rules which account for (serialization) are basically the same in Afro-American (i.e. Atlantic creoles - my insertion) as in [the] Kwa [West African] languages" (1980: 167). And third,

\textsuperscript{17} Just as the proposition expressed in a finite \textit{S} has a specific temporal orientation, an infinitive is characterized by lack of the same. As with 'finite \textit{S}', the concept 'infinitive' will be discussed in ore depth in Chapter II.
Alleyne (1980: 169) concludes that the characteristics of serialization in the Kwa languages "seem to be closer to SA than to other Afro-American dialects" (i.e. Atlantic creoles).

Now verb serialization is a phenomenon among many creole and non-creole languages where verbs, or verb-like formatives, function in various roles which are normally performed in non-serializing languages by prepositions, adverbs and COMPs, among other categories. In abstracting from numerous papers on West African languages dealing with the subject, most agree on the following characteristics:

1) TNS, modality (MOD), aspect (ASP) (hereafter known as TMA when taken together) and negation are marked only

---

18. Goodman (1985: 127) notes that "serial verbs ... are common in West Africa, India, Southeast Asia, the Far East, and New Guinea (and perhaps elsewhere)."


20. We should not interpret this statement to mean that the characteristics only apply to West African languages. In fact, they apply equally well to serial structures in languages from other parts of the world. See for example Li and Thompson (1974) for "archaic" Chinese (from the Eleventh Century B.C. to the Fourth Century B.C.) and Bradshaw (1979) for New Guinea languages.
once, usually in the initial clause, but are interpreted as the same throughout.

ii) The subjects of serial verbs are phonologically-realized only in the initial clause.

iii) There are no overt markers of subordination or coordination preceding serial verbs.

Consistent with these characteristics, in (la,b) below from Kru of the Niger-Congo Kwa subgroup (which is representative of most other West African serializing languages), we see that there is only one overt subject, one modality and negation marker (mu 'future' and se 'negative' in (la,b) respectively), and no overt subordination or coordination markers preceding any of the various verbs.

la) o mu ko te mu (Hyman 1975: 125)
   he FUT rice buy go
   'He will (go) buy rice [today].'

21. With SOV serializing languages, however, TMA is normally marked S-finally. In Ijo, for example, a West African SOV serializing language which has at times been included in the Kwa group (Hyman 1975: 122), TNS appears S-finally as in (i).

i) eri wari weni-ni akana- mi (Lord 1977: 154)
   he house walk encircle-past
   'He walked around the house.'

   It should also be noted that "archaic" Chinese mentioned in Footnote (20) exhibited significant SOV features, including S-final TMA (see Li and Thompson 1974: 210, Footnote (3)).

22. But see Footnote (21) above for TMA marking in West African SOV serializing languages.
b) * Roy e tyari a pikin e go na oso
   Roy ASP carry the child go LOC house 1978: 149
   'Roy took the child home.'

In (2a) as in (1a,b), TMA and negation (as exemplified by
the ASP marker e) and the subject Roy only appear in the
initial clause. e cannot be repeated before the second verb
go 'go' as in (2b) or have different marking such as with sa

---

in (2c) (which is, by the way, mislabeled as an ASP marker rather than a modal). Finally, there are no subordinate or coordinate markers preceding go in (2a).

Based on the evidence in (1) and (2), it would seem that serialization in the Atlantic creoles could be a direct import from West Africa. If we find these same characteristics for SA in this text, this would substantially strengthen Alleyne's contentions. If, on the other hand, serialization in SA is found to contain features different from West African languages, then this would, for its part, seriously jeopardize Alleyne's position for if serialization is different from West African languages in the creole which he considers the most African-like, then there would be no reason to believe that serialization is a direct result of West African languages in other creoles which betray more European influence than SA.

Looking at the question from the Bioprogram perspective, Bickerton (1974), Givón (1979) and Muysken (1981a) observe that creole systems could represent the unmarked case. As explained by Muysken (1981a: vii): "If we believe that grammatical markedness develops in languages through lexical accretion, borrowing, the influence of factors of ease of speech perception and production, etc., then it is plausible that 'young languages', such as recently emerged Creoles, represent the unmarked case." If this is true and if Bickerton's comments on creole
sentential complements are correct, then finite Ss and verbal "complementizers" should be less marked than infinitives and actual complementizers from the standpoint of number of rules and the range of lexical categories utilized in a grammar.

In continuing with serial verbs, virtually all creole scholars have adopted a verb phrase (hereafter VP) analysis for these structures (i.e. a series of VPs with all but the initial VP dominated by a S node). That is, in those accounts each instance of a serial verb in a S is dominated by a VP node which, with one exception — Sebba's (1984a,c) coordinate VPs, is itself dominated by another VP as in (3).

3)

```
  S
 / \    
NP VP
  / \   
V VP
   / \ 
  V VP
    / 
   V
```

Now, if these analyses are correct and presupposing that the VPs are subordinate (which is the usual conclusion), then serials are quite different from sentential complements

---

24. See the references in Footnote (23). The only account of serialization in creoles which has a different conclusion is Bickerton (1984). He states that such structures in SA are sentential rather than VPs. However, that conclusion is based on the analyses in this work and so is not really an exception to the generality that virtually all creole scholars have adopted a VP analysis.
which, in detailing the most obvious disparity, are dominated by S nodes. Indeed, the differences between the two types of structures have caused Jansen et al. (1978: 156) to observe that if creoles syntactically represent the unmarked state, then the VP serial configurations are uncharacteristically "rather marked" (presumably due to their exceptional nature when compared to sentential complement structures in Sranan and other languages).

The conclusion of Jansen et al. (1978) concerning VP serial structures fosters two mutually exclusive explanations in relation to the universals-substrate debate. The first is that because of the marked nature of serials, and given that the Universals Theory predicts the least marked options, then serial structures are not part of the bioprogram, but, instead, have been directly transmitted from West African languages. The second is that the previous serial analyses are wrong in their assumptions of a VP and there is really no difference between sentential complement structures and serials. That is, serials, like complements, are dominated by S or S' nodes with a configuration like (4) (presuming S').

25. (4) on p. 16 is of course a generalization. Some variation of this structure should be expected.
If the second scenario is correct and if creole serials were once or still are finite Ss as Bickerton claims for sentential complements, and, additionally, if SA serials are shown in this text to differ significantly from those in West African languages, then this would provide strong support for the Universals Theory. After a detailed description of SA in the ensuing chapters, we will review these questions again in the final chapter.

1.2 The Model

Based on the SA data collected during the fieldwork process, certain conclusions were independently reached about pertinent SA structures and the categorial status of some formatives. In selecting a theoretical model with which to formally analyze the data, I found that the government and binding (GB) approach developed by Chomsky (1981, 1982) and his colleagues coincided almost exactly with my conclusions of SA grammar developed earlier. Thus
GB was selected over other competing theories such as Bresnan's (1982) Lexical-Functional Grammar and Gazdar, Pullum and Sag's (1982) Generalized Phrase-Structure Grammar because, for the most part, the facts of SA empirically substantiate the GB model; the others are not similarly successful. Of particular importance as we shall see is θ-theory and its related principles. This facet of the theory, along with other subcomponents, allows us to adequately analyze and capture what we consider are the intuitions of the Saramaka people towards their language.

Under GB, we have a 'core grammar' organized roughly as in (5).

5)

```
  Base Rules
   ↓
  D-Structures
   ↓
  Move Alpha
   ↓
S-Structures
```

The base rules produce a D-structure which is then reorganized through the application of Move Alpha. This produces a S-structure which is then subject to the interpretative components of phonological form which gives a
string a phonological representation and a logical form which includes well-formedness conditions, among other devices.

The base rules are usually thought of as ensuing from some version of X-bar theory (see for example Jackendoff (1977)). An intrinsic element of the theory is the notion of a head of a structure. According to Richard Oehrle (p.c.), we assume that "X-O (also written as X₀ in X-bar notation - my insertion) is the head of X-1; X-1 is the head of X-2; ... ; X-(n-1) is the head of X-n (when n is greater than 0)." We will also assume that in a maximal projection, which Jaeggli (1982b: 3) defines as \(X_n \rightarrow (Y_n)^*\) \(X_{n-1} (Y_n)^*\), where \(X_n\) is the maximal possible expansion of a given category as rewritten to the right of \(X_n\), "if \(X\) is a terminal node, then \(X\) is its head" (Jaeggli 1982b: 3). Hereafter, 'head' will have Jaeggli's meaning, or that of terminal nodes which are for the most part describable in terms of the features \([\pm V, \pm N]\) (i.e. nouns \([-V, +N]\), verbs \([-N, +V]\), adjectives \([+N, +V]\), prepositions \([-N, -V]\)) or INFL (which is not so describable). Thus, nouns head NPs (with NP being \(X_n\) in Jaeggli's account), verbs VPs, adjectives APs, prepositions PPs, and INFL is the center of clausal unit \((S)\) whose maximal extension we will assume to be \(S'\). \(S\) also has the base structure 'NP-INFL-VP', although the order of elements may vary from language to language. INFL is \([[[\pm TENSE],(AGR)]\), with AGR (i.e. agreement) being a
nominal element which is overt in some languages and contains the features person, number and perhaps gender.

We find that the concept 'head' is closely allied to the ideas found in θ-theory. The basic notion within this subcomponent is that the lexical heads of a construction assign θ-roles (e.g. Agent, Theme, Goal - see Jackendoff (1974), among others, for a taxonomy and description of such roles) to those categories which they subcategorize for.

Two integral principles of θ-theory, which we will assume to be correct, are the θ-Criterion and the Projection Principle. By the first, Chomsky (1981: 36) means that "each argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument." The term 'argument' above roughly refers to what we know as a grammatical function (GF) such as subject, object, etc. In any case, Chomsky (1982: 8) explains the Projection Principle by noting that "the θ-marking properties of each lexical item must be represented categorically at each syntactic level: at LF, S-structure, and D-structure."

A natural consequence of the above principles are various restrictions on Move Alpha. For one, if all θ-roles correspond to one argument and vice-versa, and if θ-properties must be represented at all grammatical levels, then if an item moves, it must be to a non-argument, non-θ position. These we will call θ'-positions. Move Alpha is defined in terms of movement to θ'-positions. Second, there
must also be a method to relate a moved item to its base-structure. This is done through the notion 'trace'. This is an empty category (EC) in a θ-position which is left upon NP or PP dislocation and which is coindexed with the moved constituent.

A constituent and its trace are subject to the Subjacency Condition and bounding theory. Briefly, the first of the two restrictions specifies under what conditions movement may take place. The second is a subcomponent of binding theory. It defines when a trace and its antecedent may be grammatically coindexed. In addition, binding theory will specify the categorial status of an item based on its coindexing possibilities. In regard to Move Alpha, the theory will determine the nature of the moved constituent and its trace depending on the type of movement undergone.

Different but certainly related principles are Case and government theory. Government is the abstract relationship between heads and their complements. Closely integrated to government is Case theory. First, we note that if a head governs a NP complement, it may Case-mark it (subject to certain conditions). From this perspective, Case-marking defines the relationship between a governor/Case-marker and a NP complement. Specifically, according to Jaeggli (1982b: 3), "... Case is a feature of lexical NPs which is morphologically realized in some
languages... The principle contribution of the theory of Case is to provide an adequate characterization of those positions in which a lexical element may appear."

In the above discussion, we have briefly reviewed some of the more important principles and rule systems of the GB model. Still needed, however, are formal working definitions of the preceding and other pertinent concepts for use throughout the text. The following, without explanatory comment, are some formal statements of these concepts; explanation and clarification will appear throughout the body of the work. Others which do not appear here will be defined as we encounter them in the ensuing chapters. We utilize the symbols $a$, $\beta$ and $\gamma$ for standardization. These symbols are variables which range over either lexical elements or non-lexical categories, depending on the definition. We'll begin with a definition of 'dominate' from Chomsky (1981).

6) **Dominate**

$$[a \ldots \beta \ldots \gamma \ldots \beta \ldots],$$

where $a$ is a maximal projection, if $a$ dominates $\beta$ then $a$ dominates $\gamma$.

We define the concept 'minimal maximal category' as in (7).

7) **Minimal Maximal Category**

A minimal maximal category is one which is a non-terminal node.
Sportiche and Aoun (1981) define the concept 'c-command' as in (8) and Chomsky (1981) defines 'c-command domain' and 'government' as in (9) and (10).

8) **c-command**
   a c-commands β iff a is dominated by a minimally maximal category which also dominates β.

9) **c-command Domain**
   a is the c-domain of β iff a is the minimal maximal category dominating β.

10) **Government**
    a governs β if a = X0 (in the sense of X-bar theory), a c-commands β, and β is not protected by a maximal projection.

We define 'subject' as in (11). SUBJECT and the term 'accessible' are defined in Chomsky (1981: 207, 212) as in (12) and (14). Richard Oehrle (p.c.) defines the accompanying 'i-within-i Condition' as in (13).

11) **subject**
    A subject is the NP immediately dominated by S.

12) **SUBJECT**
    ... the subject of an infinitive, an NP or a small clause ... is a SUBJECT; AGR ... is a SUBJECT, but NP is not if INFL contains AGR.

13) **i-within-i Condition**
    *[i' ...[i]...], where a-sub-i' dominates β-sub-i.
14) **Accessible**

\( a \) is accessible to \( \beta \) iff \( \beta \) is in the c-command domain of \( a \) and assignment to \( \beta \) of the index of \( a \) would not violate the 'i-within-i Condition'.

A concept related to 'government', is 'governing category'. This is defined by Chomsky (1981) as (15) below.

15) **Governing Category**

\( a \) is the governing category for \( \beta \) iff \( a \) is the minimal category containing \( \beta \), a governor of \( \beta \), and a SUBJECT accessible to \( \beta \).

Our last pertinent concept is binding. Chomsky (1981) defines this as in (16).

16) **Binding**

\( a \) binds \( \beta \) iff

a) \( a \) and \( \beta \) are coindexed and

b) \( a \) c-commands \( \beta \).

After having stated the above definitions and before we move to the next section on the data, a final word on the category VP is in order. As we will see in the ensuing analyses, there are no processes or movement patterns in SA which affect a VP category. For instance, as explained in Chapter III, Move Alpha seems to involve only \( \theta \)-marked arguments of a verb. As far as a verb itself, it may be the case that it does not move but, rather, can have a copy of itself appear in COMP position. In any event, evidence like lack of VP movement in SA and other creoles led Derek
Bickerton (1981: 124) to observe that there may be no VP node in early creoles. However, VP within GB theory is absolutely necessary, perhaps even a universal category if Williams (1984) is correct in his discussion. VP is the domain in which subcategorization takes place, θ-roles and Case are assigned, and a verb governs. A VP is thus a plausible explanation of why these functions of V are confined within the scope that they are.

From another perspective, without a VP it would be difficult to account for the fact that V doesn't govern [NP,S] (i.e. the subject of a sentence) in (17) below.

17) \[
\begin{array}{c}
S \\
| \\
NP & INFL & V
\end{array}
\]

As normally formulated, INFL, but not a verb, governs a subject. According to the definition of c-command in (8) (and most if not all definitions in the literature), the verb as well as INFL in (17) above would c-command the subject NP, a necessary prerequisite to government. Thus, the subject NP would have two possible governors, a situation which is counter to the definition of government here and all other definitions of the concept, as far as is known.

Not only would c-command be problematic, but there would also be a difficulty of what assigns a θ-role to the subject; it is the VP (taken compositionally, in some sense
of the term) as normally assumed. If a verb assigned such a role, how would we reconcile that with the fact that a verb doesn't subcategorize for an external argument? With just a verb and no VP, we would additionally have a problem with X-bar theory if a verb had no projections. How would we express the cross-categorial generalizations concerning branching and levels of structure without a VP? For these reasons, we assume a VP node for SA and all other configurational languages.

1.3 The Data

The data analyzed and presented in this text was collected during numerous trips to Suriname over more than a three year period. These trips ranged from two weeks to two months in length, for a total of approximately seven months in the country. During this time, 17 Saramaka were worked with for nearly 250 hours of interviews. However, of the total number of consultants, only four accounted for nearly 95% of the data on hand. The reader may refer to Appendix B for the personal information on these four main Saramaka consultants, as well as other appendices which contain a glossary of pertinent SA formatives, the system of SA orthography used here, and a list of abbreviations that appear throughout this work.

The primary means of soliciting data was the informant-reaction method, although free conversation,
folktales and travel narratives were likewise recorded. Because the informant-reaction method could lead to erronious judgments for whatever reasons, my assistant, a native speaker of SA, always accompanied me during the interviews. To gain even greater reliability, all data was also checked a minimum of three times and as many as six whenever variation manifested itself either between consultants or with one informant. The following account is then the culmination of these years of work.

1.4 The Syllabus

The organization of this volume is as follows: the second and third chapters will respectively discuss some of the basic properties of SA which include sentential subordination and constituent dislocation. Next, in the following three chapters (Chapters IV, V, VI), each will deal with different types of serial verbs: Chapter IV will look at complementizer-like serials, Chapter V with Case-marking serials, and Chapter VI with verb-modifying serials. Finally, as previously mentioned, the last chapter, or Chapter VII, will once again bring up the questions posed here and, at the same time, will review and generalize upon the grammatical patterns observed in the previous chapters.
This chapter will give us our first look at many of the basic properties of SA, including question formation, constituent dislocation and verb copy. In discussing the general mechanisms of extraction and copy, we will develop diagnostics which will enable us to distinguish between subordinate structures and sentential conjuncts in this and succeeding chapters. At the same time, other points that will be dealt with include some item-specific properties of NP and PP extraction, distinguishing between movement and verb copy, features of coordinate structures, and some general characteristics of personal pronouns and TMA markers. We'll begin this discussion with a look at wh-forms and question formation.

2.1 Wh-Phenomena

A distinction which is commonly made in English syntax (Chomsky 1977; Ross 1967, 1974) is between those wh-forms which undergo COMP-to-COMP cyclical movement and those which are base-generated. The first either form indirect questions or headless relatives if movement terminates before a subordinate clause; they form direct questions if
movement continues to S-initial COMP position (which we interpret to be a labeled hierarchically structured position (left daughter of a node whose right daughter is a S)). The second have often been called 'subordinating conjunctions' (see for example Emonds (1976) and Baltin (1978); see also Chapter IV of this text) and are the product of the base-generation of, among others (e.g. since, because, if, etc.), non-questioning wh-forms which introduce sentential subordinates. In (1) below, where and when are base-generated and are thereby not indirect questions or headless relatives.

1a) He saw the child where the two cars crashed.
   b) He saw the boy when he arrived at school.

In (2), however, where and when are a result of Move Alpha (i.e. COMP-to-COMP movement) and correspondingly leave a gap (i.e. an empty node e) at the extraction site.

2a) He saw where the two cars crashed e.
   b) He saw when the boy arrived at school e.

In either case, the formatives often prohibit additional movement from the lower clauses.

Consistent with such an analysis for (1) and (2) above is the stranding pattern of prepositions in English; prepositions often stay behind in their D-structure positions upon application of Move Alpha as in (3b).

3a) The two cars crashed at the intersection.
   b) Where did the two cars crash at?
However, such stranding is ungrammatical with subordinating conjunctions such as in (4).

4) *He saw the child where the two cars crashed at.

But it is acceptable in Ss such as (5) where a NP complement may move to a dominating COMP position and leave the preposition behind.

5) He saw where the two cars crashed at.

In SA, for its part, the two form-types are never homophonous as they are in English. Direct and indirect questions and headless relatives (i.e. those structures that are the result of Move Alpha) are signalled by a specific set of items which include un 'when, which', umfa 'how', andi 'what', ambe 'who', andimbei 'why', and unse 'where', naase 'at, from, to, etc. where' (i.e. assimilated a + unse 'at, etc. + where'), whereas sentential subordinates are introduced by such items as, among others, di 'when' and ka 'where'. However, both sets, whether wh-forms or not, are similar in SA in that both produce island effects. We will discuss di 'when' and ka 'where' in Chapter IV, so we will begin here by first looking at wh-movement and related items and processes in SA.

2.1.1 Question Formation

In creole languages generally, question formation normally does not involve any additional morphology. A yes/no-type interrogative is usually distinguished from a
statement only by a rising intonation contour at the end of the string (Bickerton 1975: 92; Byrne 1980; Turner 1965: 19) and in wh-question formation, the appropriate wh-form is simply preposed to a COMP position - to S-initial position in direct questions and to subordinate-initial COMP in indirect questions (Bickerton 1975: 92; Byrne 1980). That is, in current syntactic terminology, the rule Move Alpha leftwardly dislocates the wh-form in a cyclical manner until it reaches the appropriate 'landing site' (in the sense of Baltin (1978, 1982)) which is, without exception in SA, always COMP.

SA follows the creole pattern with one exception. In yes/no questions, the interrogative particle no with the appropriate rising intonation may follow the S string. Note the following data from Rountree and Glock (1982: 27).

6a) a ko sei wanlo tembe feen
   fu+en
   he come sell some carving for-him
   'He came to sell some of his carvings.'

6b) de ko luku wanlo tembe fu de
   they come look-at some carving for them
   'They came to look at some of their carvings.'

---

1. The interrogative particle no appears to be a tag, although this designation is subject to future confirmation.
7a) a ko sei soni aki (no)
    he come sell something here (interrogative-particle)
    'Did he come to sell something here?'

b) de ko luku soni aki (no)
    they come look-at something here (inter.-prt.)
    'Did they come to look at something here?'

The statements in (6) need no special morphology, but in yes/no questions as in (7), no is optionally added.

The formation of headless relatives and direct and indirect questions in SA follows the creole pattern exactly. That is, a wh-form is simply preposed to the appropriate COMP node from the extraction site. Such movement is best illustrated for the moment by perception verbs and their sentential complements. Consider (8), (9) and (10) below.

8a) Kofi si di mujee bi- ta- wooko a di keiki
    Kofi see the woman TNS-ASP-work at the church
    'Kofi saw the woman working at the church.'

b) a ta- luku di mii ta- ko a lio
    he ASP-watch the child ASP-come from river
    'He is watching the child coming from the river.'

9a) Kofi si ambe e bi- ta- wooko a di keiki
    Kofi see who e TNS-ASP-work at the church
    'Kofi saw who was working at the church.'

2. It is difficult to adequately capture the TNS marking in many SA complements such as in (8a). The gloss for (8a) is about the best one can do in English.
b) Kofi si naase di mujee bi- ta- wooko e
   a+unse
   Kofi see at-where the woman TNS-ASP-work e
   'Kofi saw where the woman was working.'

   (8) represents base-generated strings which the rule
   Move Alpha of the transformational component of the grammar
   has not affected. The Ss in (9) and (10), on the other
   hand, are two possible outcomes of the application of Move
Alpha to the constituents of the subordinate clauses of perception verbs. In (9), various wh-forms have been moved to a subordinate COMP position, thus in these cases forming headless relatives. In (10), the wh-forms have continued their movement from the subordinate S' to the matrix COMP position, thereby forming direct questions and additionally offering evidence for Chomsky's (1977, 1981, 1982) claim that wh-movement is cyclically COMP-to-COMP. Pending further confirmatory discussion and analyses, the Ss in (8) will tentatively be said to have the following structures:

11) S'  
   COMP  S  
   NP    INFL VP  
   V  S'  COMP  S  
   NP    INFL VP

Kofi  Ø si  Ø di mujee bi-ta wooko a di keiki
'Kofi saw the woman working at the church.'

a ta luku Ø di mii ta ko a lio
'He is looking at the child coming from the river.'

2.2 TMA, Pronominals and Perception Complements

We assumed in (11) that what follows each perception verb is both adjoined and sentential. Concerning the latter, Chomsky (1981: 52; 1982: 8) presents NP INFL VP as the basic S structure for all natural languages. That is,
for well-formedness, an S needs a subject NP, a positive
tense designation ([+TNS]) if it is finite (he distinguishes
between [±TNS] as rewrites of INFL), and a VP. Moreover,
with the presence of a [+TNS] feature, a Nominatively-marked
subject is implied by the subtheories of Case and
government. As was briefly mentioned in Chapter I, this
subcomponent states (Chomsky 1981: 162) that the lexical
head of each major syntactic category in an S (i.e. noun
(N), verb (V), adjective (ADJ), preposition (P)) governs and
assigns Case to its argument NP(s). In regard to the S unit
itself, Chomsky (1981: 140; 1982: 19) proposes that INFL
heads S. Also following Chomsky (1981: 170ff; 1982: 78ff),
with INFL having a [+TNS] value, then the AGR element within
INFL (assuming such of course), which in SA is
indistinguishable from TNS since the language is
uninflected, governs and assigns Nominative Case to the
subject NP (to be substantiated later in this section).
Conversely, a [-TNS] feature implies an ungoverned (and non-
Case-marked) subject and an infinitive (i.e. a tenseless
clause) is the syntactic result. Note that in either case
(i.e. [±TNS]), a subject is present because of the Extended
Projection Principle which states that "clauses have
subjects" (Chomsky 1982: 10).

As seen in (8), among the formal properties of INFL
in SA is that it is marked preverbally within the frame
[NP __ VP] and includes at least the TNS marker bi (most
plausibly from English *been* with phonological adjustment to the canonical CV creole pattern (see Bickerton (1981: Chapter 2)) and the ASP marker *ta* (from Iberian *esta* 's/he/it is' or *estan* 'they are' (Byrne 1982a,b), but see Smith (1980: 21) for an alternative etymology). Thus *bi* and *ta* have verbal etyma, a conclusion consistent with that of Seuren (1983: 219-20) in his analysis of TNS and ASP markers in Sranan (a sister creole language of SA in

3. Naomi Glock (p.c.) points out that the hyphens used with both TMA markers and the following verb may lead to incorrect conclusions. She notes that pauses are possible between any of the markers or between the markers and a verb. These markers are therefore not clitics. However, because hyphens are commonly used in the literature with SA, for consistency I will continue the practice.

4. Since Seuren's (1983) approach to TNS and ASP markers in Sranan deals with how such items may lose their verbal status and change to particles, it has relevance to SA. His reasoning (pp. 219-20) goes as follows:

... the auxiliary elements in question all used to be verbs either in the language of origin or in older stages of Sranan: the historical records are unambiguous on this score. It thus seems natural to assume that there was a period where the auxiliary elements clearly were verbs in surface structure, and consequently also in deeper layers of underlying structure, probably going up to deep or initial structure. Due to the accidents of history and grammar these elements then began to occur predominantly in positions where their verbal status was dulled by automatic feature assignments that were identical for all cases. The result was that the verb-description still remained possible, but allowed for a (procedural) short-cut whereby the repetitive verbal feature bundles are replaced by the ad hoc label 'particle'. We thus get a detailed and analytical view of a process of category change through time.
Yet despite their verbal origins, bi and ta form a class apart from verbs in synchronic SA. Verbs, with a developing restriction (to be discussed), allow a copy of themselves in S-initial (i.e. COMP) position as in the (b) Ss below. The process serves to emphasize the verb (see sections 2.3.2.2 and 3.2.2 for more details). However, the extraction of bi and ta, either singly, together, as a copy, or with verbs, is always ungrammatical.

12a) a bi· libi a Brokopondo
   he TNS-live in Brokopondo
   'He had lived in Brokopondo.'

b) libi a bi· libi a Brokopondo
   live he TNS-live in Brokopondo
   'He had LIVED in Brokopondo.'

c) *bi a libi a Brokopondo

d) *bi a bi·libi a Brokopondo

e) *bi·libi a libi a Brokopondo

f) *bi·libi a bi·libi a Brokopondo

13a) a ta· libi a Brokopondo
   he ASP-live in Brokopondo
   'He is living in Brokopondo.'

b) libi a ta· libi a Brokopondo
   live he ASP-live in Brokopondo
   'He is LIVING in Brokopondo.'

c) *ta a libi a Brokopondo

d) *ta a ta·libi a Brokopondo
37  
e) *ta-libi a libi a Brokopondo  
f) *ta-libi a ta-libi a Brokopondo  
14a) a bi- ta- libi a Brokopondo  
\[\text{he TNS-ASP-live in Brokopondo.}\]  
'bHe has been living in Brokopondo.'  
b) libi a bi- ta- libi a Brokopondo  
\[\text{live he TNS-ASP-live in Brokopondo.}\]  
'He has been LIVing in Brokopondo.'  
c) *bi-ta e libi a Brokopondo  
d) *bi-ta a bi-ta-libi a Brokopondo  
e) *bi-ta-libi a libi a Brokopondo  
f) *bi-ta-libi a bi-ta-libi a Brokopondo  

There are also a variety of modality markers which will be discussed later. Nevertheless, as with all other creole languages, the order of the TNS and ASP particles in SA, if they co-occur, is invariably as shown in (8a) and (14a): bi is always first, followed by ta (see Bickerton 1974; 1975: Chapter II; 1981: 58, 306). The reverse order is ungrammatical.  

15) *di mujee ta- bi- wooko a di keiki  
\[\text{the woman ASP-TNS-work at the church.}\]  

The semantics of the particles (and their absence) is also the same across a majority of creoles. These

---

5. But see Seuren (1981) for somewhat different views concerning Sranan.
languages characteristically divide their verbal repertoire into stative and non-stative varieties, with the dimensions of overt TNS marking varying accordingly (Bickekron 1981: 58-9). Thus in SA, which is representative of other creoles, the stem-forms of stative verbs (i.e. cognition and desiderative verbs as well as what we will call predicate adjectives - more on this shortly) roughly signify present time, while the stems of action verbs (which includes perception verbs) are interpreted as past. Correspondingly, bi alone preverbally means roughly past with statives and past before past, or pluperfect in more traditional terminology, with action verbs. Consider the oppositions in the data below.

16a) a meni di oto
    he remember the story
    'He remembers the story.'

b) a bi- meni di oto
    he TNS-remember the story
    'He remembered the story.'

17a) a ke go a foto
    he want go to Paramaribo
    'He wants to go to Paramaribo.'

b) a bi- ke go a foto
    he TNS-want go to Paramaribo
    'He wanted to go to Paramaribo.'
18a) mi fatu
I fat
'I'm fat.'

b) mi bi- fatu
I TNS-fat
'I was fat.'

19a) a luku wan buku
he look-at a book
'He looked at a book.'

b) a bi- luku wan buku
he TNS-look-at a book
'He had looked at a book.'

20a) a bebe wata
he drink water
'He drank water.'

b) a bi- bebe wata
he TNS-drink water
'He had drunk water.'

21a) a go a matu
he go to jungle
'He went to the jungle.'

b) a bi- go a matu
he TNS-go to jungle
'He had gone to the jungle.'

The stem-forms of the stative verbs (including predicate adjectives) in (16) through (18) are best translated as
denoting present time, while zero marking on the action verbs in (19) through (21) signifies past; the marked forms with bi in the first group changes the time orientation to past, but the same form in the second set orientates the action to pluperfect.

Although stative verbs (including predicate adjectives) commonly resist co-occurring with ASP markers in creole languages generally (Bickerton, p.c.), when such is permitted in SA, the stative retains its present reading but additionally adds an inchoative interpretation. 6

22a) a sabi di tongo

he know the tongue

'He knows the language.'

b) a ta- sabi di tongo

..ASP...

'He is getting to know the language.'

23a) di womi wisiwasi

the man worthless

'The man is worthless.'

6. Richard Oehrle (p.c.) observes that znat' (imperfective) 'to know' and uznat' (perfective) 'to find out, realize' from Russian offer interesting similarities to this contrast in SA. He states that "in the usual case in Russian (though not invariably), a simple unprefixed verbal form is imperfective, and there is a corresponding prefixed form [which] counts as its neutral, perfective counterpart. ... With a few 'statives', however, the most neutral prefixed form is inchoative, just as in the cases [described here]."
b) di womi ta-wisiwasi
'The man is becoming worthless.'

24a) di banti lusu
the belt loose
'The belt is loose.'

b) di banti ta-lusu
'The belt is getting loose.'
'The belt is loosening.'

Alternatively, ta preverbally with action verbs may have a habitual or progressive meaning, although an additional adverbial qualification is usually necessary to mark habituality. In (25,26) from De Groot (1977: 284, 52), the Ss in (25a,b) are read as progressive with ta alone and only with the appropriate adverbials as in (26) can a habitual interpretation ensue.

25a) a ta- toobi mi
he ASP-annoy me
'He is annoying me.'

b) mi ta- wooko
I ASP-work
'I am working.'

26a) nomo a ta- toobi mi
always he ASP-annoy me
'He is always annoying me.'
b) mi ta-wooko ndeti ku di dia

I ASP-work night with the day
'I am working night and day.'

A fourth interpretation of ta is iterativity which Comrie (1978: 27) defines as "the successive occurrence of several instances of a given situation." As Comrie (1978: 27-8) further notes, iterativity does not necessarily imply habituality. The distinguishing feature between the two seems to be the length of occurrence, with a habitual action being protracted and an iterative being a momentary repetition of an event. With that in mind, ta in (27) unambiguously has the latter meaning.

27) Samo ta- naki di dagu ku pau

Samo ASP-hit the dog with stick
'Samo is hitting the dog with a stick (repeatedly).'

Fifth, ta can serve as a present time marker with action verbs; that is, it can overtly indicate present time as in (13) and (28) below, among other examples, while at the same time conveying habitual or progressive aspect.

28) mi ta- luku di sodati ta-waka a di wosu ala

I ASP-watch the soldier ASP-walk around the house there
'I'm watching the soldier walking around the house there.'

There is no hard and fast rule to determine when ta has a [-past] reading (at least none that is readily apparent). For this reason, such an interpretation will be
taken on a case by case basis and will depend strictly on informant judgment. For example, when I asked the speaker of (28) what the presence of the two $ta$s signal (as opposed to their absence), she unequivocally observed that their presence indicates that the actions are happening now, at the present time, and are continuing, while their absence gives the actions a preterite sense.

The dual TNS and ASP role of $ta$ in some SA Ss is important for this work, especially when we want to determine the [+TNS] status of subordinate clauses. In current syntactic theory, Chomsky (1982: 92) and Steele et al. (1981: 21-2) make no mention of ASP as justifying a [+TNS] designation; only temporal reference and/or

7. It should not be assumed, however, that the two references are similar in approach. While not advocating his theoretical views, Richard Oehrle (p.c.), one of the co-authors of Steele et al., nevertheless makes the important distinction that:

Chomsky simply assumes that his terminology will be applicable to arbitrary chosen languages, and thus it can indeed be puzzling that two categories might be taken to overlap in one language but not in another. This is consistent, of course, with the idea that languages should be shaped to fit a single master plan, but this procedure is unlikely to reveal evidence that the basic strategy is misplaced. In the work of Steele and her colleagues, however, considerable attention is paid to the empirical problems involved in cross-linguistic comparison. These problems don't reveal how to draw the line between "tense" and "aspect", but they do suggest that it is naive to assume that "tense" and "aspect" are necessary linguistic categories which are invariably realized grammatically in completely different ways.
modals seem to be included within the feature. Whether or not this is the intended interpretation, this work will maintain it throughout for the sake of analytic stringency. This means that a clause will be finite (i.e. [+TNS]) only when ta has a [-past] reference and/or when the overt TNS marker bi is possible in a clause. From this criteria, then, (16) through (28) must be finite since they are either overtly tensed with bi or, besides other readings, are receded by ta with a present interpretation (as determined by statements to that effect by the speakers of each S).

It follows from these facts that the complement of the perception verb in (8a) is finite since an overt TNS particle (i.e. bi) is present. (8b), for its part, is marked solely with ta and as we have seen, its presence does not necessarily represent a [+TNS] value. However, like (28) which is identically marked, informant judgment was such that each ta indicates both present time and continuity but with their absence as in (29), only a preterite reading is possible.

29) a luku di mii ko a lio
   he watch the child come from river
   'He watched the child come from the river.'

---

8. This we will take to define the term 'finite' for SA. That is, the possible presence of bi and/or ta with a present reading will be taken to be sufficient justification to claim that a clause is 'finite'.

We thereby conclude based on informant judgment (but contingent on other, independently motivated evidence) that like (8a), INFL in (3b) and (28) also equals [+TNS].

As a further corollary, by GB theory the presence of a [+TNS] feature stipulates that a subject be both governed and Nominatively Case-marked. Now Case is only marked in SA pronominals in third person singular where there is an opposition between Nominative a 's/he/it' and Objective en 'him/her/it'. All other pronominals are uniform in regards to Case; there is no difference between Nominative and Objective (see Byrne (1984b: Footnote 17); Markey (1982) for more details). We should therefore expect that if a subordinate clause is finite (i.e. [+TNS]), then its subject (if it is third person singular and overt) would exhibit a [+Nominative] rather than en [+Objective]. Looking at (8) (and also (29)) once again, but this time with pronominals substituting for the R-expressions after the perception verbs, note that only the Nominatively marked a is acceptable; the Objective en is ungrammatical.

30a) Kofi si a bi- ta- wooko a di keiki
     Kofi see he TNS-ASP-work at the church
     'Kofi saw him/her working at the church.'

b) *Kofi si en bi- ta- wooko a di keiki
     Kofi see him TNS-ASP-work at the church
31a) a ta-luku a ta-ko a lio
   he ASP-watch he ASP-come from river
   'He is watching him coming from the river.'
   b) *a ta-luku en ta-ko a lio
      ...him...

32a) a luku a ko a lio
   he watch he come from river
   'He watched him come from the river.'
   b) *a luku en ko a lio
      ...him...

Not only do perception verbs take the above Case
marking pattern, but as far as we can tell, all sentential
complements in SA do so. That is, there are no
Exceptionally Case-Marked subjects of subordinate clauses as
is true in other languages. The most common examples in
English syntax are from the believe set which includes hold
and prefer, among others.

33a) I believe him stupid.
   b) We hold them to be brave.
   c) They prefer her mad.

In SA on the other hand, matrix verbs in the counterparts to
(33a,b,c) above cannot Objectively Case-mark a subordinate
subject; rather, complements of these verbs can be overtly
tensed, are introduced either by taa 'say, that' or Ø, and
only allow Nominatively-marked subjects.
34a) mi biibi taa a bi-don
   I believe say he TNS-dumb
   'I believe that he was dumb.'

b) *mi biibi taa en bi-don
   ...him...

c) *mi biibi ø en bi-don

35a) de ke a bi-hatiboonu
   they want she TNS-mad
   'They want her mad.'

b) *de ke en bi-hatiboonu
   ...him...

If the complements in (30) to (32) and (34) and (35) were infinitives as they are in English, then the subordinate subjects in these clauses would not manifest Nominative Case since the Case-marking element of INFL (i.e. AGR) would supposedly not be present. The (b) Ss of (30) to (32) and (34) and (35) would then probably be grammatical with Objective Case-marking. That is, they would have Exceptionally Case-Marked subjects (i.e. subordinate subjects Objectively Case-marked by the matrix verb) as is possible in English, for example, with her as in they saw her driving the car. Now Exceptional Case Marking is a marked process according to Chomsky (1981), presumably because of the added operations necessary for Case marking to take place. He describes the actual mechanics in the following way:
Clausal complements are of the category S', which we have assumed to be an absolute barrier to government... A reasonable assumption, then, is that English has a marked rule of S'-deletion for complements of verbs of the believe (and perception (my addition)) category, permitting the verb to govern the subject of the embedded complement...
(Chomsky 1981: 66)

Since the subjects of the complements in the (30)-(32), (34)-(35) data sets are not Exceptionally Case Marked (i.e. are not subjects of infinitives but are Nominatively Case-marked within finite Ss), SA has opted for the least marked syntactic alternative. Moreover, just as these complements are finite, so too are the vast majority of sentential complements in SA. That is, similar to the Balkan areal feature of no infinitives (e.g. in Rumanian, Bulgarian and Hellenic Greek), there appear to be just a few verbs within certain clause-types in SA which do not allow TMA marking; these we consider to be infinitives. This claim will be further discussed and exemplified throughout the remainder of the text.

2.3 Coordination and Subordination

In section 2.1.1, we presupposed that the sentential complements which follow the perception verbs in (8) were finite Ss and subordinate. Now we would like to determine if in fact they are subordinate. Similar analyses concerning this point have appeared in one guise or another in Byrne (1983b; 1984c,d), but because of its importance in that its details have implications throughout this present
text, some of those analyses will be repeated here. To do this, we will look at the characteristics of the two configurational possibilities: sentential coordinate and subordinate structures. (We disregard parataxis as marginal if existent in the language.)

2.3.1 Sentential Coordinate Structures

The noteworthy fact about coordinate Ss in SA is that they seem to adhere absolutely to Ross' (1967, 1982) Coordinate Structure Constraint. In no instance can movement or verb-copy take place out of these structures. In modifying (8a) somewhat into acceptable coordinate structures in (36) and (37) and deferring a discussion of the mechanics of movement and copy for the moment, note the impossibility of moving a di keiki 'at the church' and di mujee 'the woman' (as both R-expressions and wh-forms) and copying wooko 'work' and si 'see' from the second of the two clauses (introduced by hen 'and' and ma 'but' respectively) to S-initial position.

36a) Kofi si di mujee hen a go ta-wooko a di keiki

Kofi see the woman and he go ASP-work at the church

'Kofi saw the woman and (then) he went to work at the church.'

b) *a di keiki Kofi si di mujee hen a go ta-wooko e

at the church...
According to Hale (1975), citing Erteschik (1973), a common violation of the Coordinate Structure Constraint among the languages of the world occurs when the second clause of a conjunct is semantically dominant and the first states some kind of "precondition" (Eloise Jelinek, p.c.). When these prerequisites are met, wh-extraction is oftentimes permitted as in the English examples below (also from Jelinek, p.c.).

38a) What did John come and say?
   b) What did John get a gun and shoot?

However, even when the above preconditions are met,
violations of Ross' constraint are still not permitted. 9

39a) Obeson ko a di wosu hen a taki taa Magda de aki
   Obeson come to the house and he say that Magda be here
   'Obeson came to the house and said that Magda is here.'

b) *andi Obeson ko a di wosu hen a taki e
   what...

c) *ambe Obeson ko a di wosu hen a taki taa e de aki
   who...

40a) Jan tei di goni hen a sutí di womi
   Jan take the gun and he shoot the man
   'Jan took the gun and shot the man.'

b) *ambe Jan tei di goni hen a sutí e
   who...

(39) and (40) are as close as we can come in SA to the
English Ss in (38). Yet despite the grammaticality of
extraction in (38), similar extraction in SA remains
impossible, making plausible the assumption that coordinate
Ss are categorically inviolable from at least the second
clause.

The above SA coordinate structures in (36) through
(40), when compared with the Ss in (8), are considerably

9. Richard Oehrle (p.c.) observes that (38a,b) are
   not conjuncts in the same way as are the SA Ss in (39) and
   (40), for example. He notes that in (38a,b), it is not
   possible "to replace and with or ..., nor can the first
   'conjunct' be preceded by both." In any case, I think the
   comparison between English and SA is both important and
   valuable.
different. First, coordinates in SA must have an overt coordinate conjunction. With sentential coordinates, it is a particle like \textit{hen} 'and' or \textit{ma} 'but'. Without such a marker, (36) and (37) are considered to be two separate Ss.

41) Kofi si di mujee a go ta-wooko a di keiki
Kofi see the woman he go ASP-work at the church
'Kofi saw the woman. He went to work at the church.'

Second, in coordinate Ss subjects and GF-\textit{θ}s (i.e. grammatical functions which are \textit{θ}-marked - see Chapter I for more details) that a verb strictly subcategorizes for must be \textit{overtly} filled at all levels of grammar. This means that a subject is always overtly present since, as we shall see in Chapters IV and V and subsequent chapters, subordination is a precondition for ECs in subject position and either a NP object or a S' sentential complement must be present with a perception verb for these are what these verbs strictly subcategorize for. For verbs like \textit{wooko} 'work' in (36) and (37), a subject is again mandatory by the same principle and a following prepositional phrase is optional; we can thus omit \textit{a di keiki} 'at the church' as in (42a). However, the gapping of the coreferential \textit{a} 'he' in the (b) Ss of (42) and (43) is not possible; the result is ungrammatical as it is in all instances in the language.

42a) Kofi si di mujee hen a go ta-wooko __
Kofi see the woman and she go ASP-work
'Kofi saw the woman and she has been working.'
b) *Kofi si di mujee hen — go ta-wooko —

43a) Johannesi(i) go a di wojowojo hen a(i) bai sooda
Johannesi go to the market and he buy soda
'Johannesi went to the market and bought a soda.'

b) *Johannesi go a di wojowojo hen — bai sooda

In looking at gapping of strictly subcategorized constituents, there is an interesting contrast with Sranan. Jansen et al. (1978: 150-51) have demonstrated that "VP-deletion" is possible in that language after modals in response to questions and in conjunctive Ss. Consider the Sranan examples below from the above reference.

44) suma kan tjari den buku? Mi kan __
who can carry the(pl.) book I can
"Who can carry the books? I can.'

45a) Meri no moesoe go na skoro, ma Jan moesoe __ 10
Mary not must go to school, but Jan must
'Mary does not have to go to school, but Jan has to.'

b) Meri no moesoe teki a nefi koti a brede, ma Kofi
Mary not must take the knife cut the bread, but Kofi
moesoe __
must
'Mary does not have to cut the bread with the knife,
but Kofi has to.'

However, the equivalent of the above Sranan Ss in SA is

10. 'oe' is equivalent to /u/ in Dutch orthography.
ungrammatical. Most of the apparent modals in (46) through (50) below will be shown to have all of the characteristics of main verbs in Chapter IV, which includes the ability to strictly subcategorize (see Pullum and Wilson (1977) and Ross (1967) for somewhat similar views, but see Akmajian, Steele and Wasow (1979) for an alternative approach). Since sa 'can' in (46) and musu 'must' in (47) strictly subcategorize at least for the following verb in each example, then, using the terminology of Jansen et al. (1978), the deletion of the following VPs is ungrammatical.

46) ambe sa- tsa de b buku? *Samo sa
who can carry the(pl.) book? Samo can

47a) *Meri an musu go a sikoo, ma Kofi musu
Mary not must go to school but Kofi must

b) *Meri an musu tei di faka koti di bee, ma Kofi
Mary not must take the knife cut the bread but Kofi
musu
must

Only the absence of optional constituents11 as in (48), but not in (49-50b), is permissible.

48) Meri an musu go a sikoo, ma Kofi musu go
Mary not must go to school, but Kofi must go
'Mary must not go to school, but Kofi must go.'

11. Koster (1984: 428) refers to optional arguments as 'implicit'. By this he means that they are "semantically presupposed" and "tacitly present."
49a) ambe sa- tsa dee buku? Samo sa- tsa dee who can-carry the(pl.) book Samo can-carry the(pl.) book 'Who can carry the books? Samo can carry the books.'

b) *Samo sa- tsa 
Samo can-carry

50a) Meri an musu tei di faka koti di beee, ma Kofi Mary not must take the knife cut the bread but Kofi sa- tei en can-take it 'Mary must not cut the bread with the knife, but Kofi can.'

b) *Meri an musu tei di faka koti di beee, ma Kofi sa- tei __

In (48), the optional locative PP a sikoo 'at school' is acceptably deleted in the second clause after go 'go', but in (49) and (50), with obligatory NP complements after tsa 'carry' and tei 'take' respectively, such deletion is ungrammatical.

To summarize the characteristics of coordinate Ss in SA, we noted first that the movement of arguments and verb copy from the second clause to S-initial position in these structures is ungrammatical in all cases examined. Even when the second clause is semantically dominant, a situation which permits extraction in many languages, movement is
still ungrammatical. From these facts, we postulated that SA adheres to Ross' Coordinate Structure Constraint for at least the second clause of sentential conjuncts. We then noted various results of deletion, gapping or ellipsis (depending on the one's terminology). It was found that ellipsis never occurs; coreferential NPs are always overtly present. Nor is deletion very common; the only instance where it can apply is when a constituent is optional (i.e. when it is not strictly subcategorized for). We concluded, then, that all strictly subcategorized complements are always overtly present at all levels of grammar in sentential coordinates in SA. We will now turn to subordination and see what that tells us about the Ss in (8).

2.3.2 Subordination and Perception Verbs

Concerning the original question of whether what follows the perception verbs in (8) are coordinate or subordinate, the evidence so far leads us towards a subordinate designation. As mentioned in the previous section, sentential coordinates must have an overt marker introducing the second clause. In addition, and perhaps more important, no movement or copy of any kind is allowed to S-initial position in (36), (37), (39) and (40), but in (8), at least wh-movement is possible (see (9) and (10)). In fact, unlike sentential coordinates, the extraction of
NPs and PPs and the copy of Vs found in the second clause of the Ss in (8) is possible. Since each category shows a distinctive dislocation pattern, we will look at each in turn.

2.3.2.1 NP Focus. Just as wh-movement can take place from the NP positions in the second clause of each S in (8) (as demonstrated in (9) and (10)), so too can the NPs themselves be focussed from these clauses to S-initial position.

51a) di mujee Kofi si e bi- ta- wooko a di keiki
the woman Kofi see e TNS-ASP-work at the church
'It was the woman that Kofi saw working at the church.'

b) di mii a ta- luku e ta- ko a lio
the child he ASP-watch e ASP-come from river
'It is the child that he is watching coming from the river.'

The e in the above Ss (and in all previous Ss which have had constituents dislocated) signifies the gap, or empty category (EC), left by the extraction of each respective NP.

Notice also in the above data that there is no additional obligatory morphology involved with constituent focus. The only deviation from this pattern occurs with the dislocation of a subject NP R-expression, but not a wh-form. When this happens, a focus marker which copies the number of the extraposed subject may appear in NP postposition. These
markers include hen 'emphatic s/he/it' and de 'emphatic hey' and are optional, but if one does not appear, a subject would not be focused. Note (52).

52a) di/dee womi lesi di buku
   the(sg/pl) man read the book
   'The man/men read the book.'

b) di womi hen e lesi di buku
   the(sg) man HE read the book
   'It was the man who read the book.'

c) dee womi de e lesi di buku
   the(pl) man THEY read the book
   'It was the men who read the book.'

d) *ambe hen/de e lesi di buku
   who HIM/THEY...

Without hen or de, (52b,c) would be indistinguishable from (52a). In addition, note in (52d) that neither focus marker may co-occur with the wh-form ambe 'who'.

With other than subject dislocation (i.e. with the object of a verb or a preposition, but not with wh-form extraction), a focus marker may again optionally appear, although in these cases such a formative is not needed for the NP to be interpreted as focussed. Consider (53) and (54).

12. hen 'HE, etc.' is also the emphatic form of a 's/he/it' and en 'him/her/it' when dislocated by Move Alpha. See (27a,b,c) in Chapter IV.
53a) di womi sei di fou a di wojowojo
   the man sell the bird at the market
   'The man sold the bird at the market
b) di fou di womi sei e a di wojowojo
   'It was the bird that the man sold at the market.'
c) di fou hen di womi sei e a di wojowojo
   ...IT...
   'It was the bird that the man sold at the market.'
d) *di womi sei di fou hen a di wojowojo
   the man sell the bird IT at the market
e) *ambe hen di womi sei e a di wojowojo
   who HIM...

54a) a di wojowojo di womi sei di fou e
   'It was at the market that the man sold the bird.
b) a di wojowojo hen di womi sei di fou e
   ...IT...
   'It was at the market that the man sold the bird.'
c) *di womi sei di fou a di wojowojo hen
   ...IT

d) *naase hen di womi sei di fou e
   at-where IT...

The object of sei 'sell' in (53a), di fou 'the bird', and the prepositional phrase a di wojowojo 'at the market' may dislocate as in (53b) and (54a) without any overt focus marker. Alternatively, as with any dislocated NP or PP (but not verbs - see Chapter III), such a marker
may optionally appear as in (53c) and (54b), but not in (53d) and (54c) where di fou 'the bird' and a di wojowojo 'at the market' are in their base-generated positions. Finally, as shown in (53e) and (54d), a focus marker may not appear with wh-forms. Thus, the surfacing of hen 'HE, etc.' (or de 'THEY') is a by-product of the wh-type movement of NPs (but not wh-forms) and not a mechanism whereby an element becomes emphatic in its base position.

Now note (55).

55a) a ke fu di mii njan di kuku

he want for the child eat the cookie

'He wants the child to eat the cookie.'

b) a ke fu di mii hen e njan di kuku

...the child HE...

'He wants for it to be the child to eat the cookie.'

c) a ke di mii (hen) fu e njan di kuku

...the child (HE)...

'He wants the child to be the one to eat the cookie.'

d) di mii (hen) a ke fu e njan di kuku

the child (HE)...

'It is the child that he wants to eat the cookie.'

(55a) represents the base structure of this series of Ss, with (55b) constituting the dislocation of the (at this stage, supposed) subordinate subject. Then, by cyclic COMP-to-COMP movement, di mii 'the child' continues its leftward movement to other non-A (i.e. A') positions, first to pre-fu
COMP in (55c) and then to S-initial position in (55d). In both of these latter two positions, the focus marker hen 'HE' is again optional as it is in all other Ss that we have looked at. In (55c), ke 'want' subcategorizes for an NP or an S', but not both. di mii 'the child' is not, therefore, in a base-generated position. Nor could di mii be interpreted as being in a base-generated position in (55d) since an S-initial position is the exclusive domain of at least a COMP node.

Now it may seem strange that there are landing sites before and after fu 'for' if one thinks in terms of English or other Indo-European languages, but as mentioned in Chapter I and as will be discussed in Chapter IV, fu is in fact not a complementizer as it might first appear, but is a verb within a finite S. Nevertheless, for the present the question before us is the syntactic status of hen 'HE' (and de 'emphatic THEY'). The three possible configurations are as in (56) (with the coindexing relations represented within the parentheses).

56a) [S' di womi(i) [S' hen(i) [S e(i) lesi di buku]]
   the man HE read the book
   'It was the man who read the book.'

b) [S' di womi(i) [S hen(i) lesi di buku]]

c) [S' di womi hen(i) [S e(i) lesi di buku]]

Although Hilda Koopman (p.c.) prefers the configuration in (56a) because of the possible presence of
hen 'HE', it is doubtful that it is the correct structure since with hen in a COMP position, the only way it could have arrived there was by moving from some base position where it was originally generated. But as was seen in (53d) and (54c), hen never accompanies NPs in situ; only when there is movement does it appear. Yet if hen has somehow been moved independent of a NP, then it should occur somewhere in a base structure prior to dislocation, which it never does in this context.

Returning to (55) for a moment, the structural description for the appearance of hen 'HE' in each landing site is exactly the same; in that data, hen may co-occur with di mii 'the child' whenever the NP is preposed to whichever position. Because of this structural description, if we hypothesize that di mii 'the child' is in a TOP node (i.e. S') and hen 'HE' in COMP in (55d), we would thereby have to claim that di mii and hen are in TOP and COMP respectively in the lower positions as well. From the viewpoint of Chomsky (1977), TOP is the repository of base-generated arguments in S-initial position such as in (56a). Trace (i.e. e in the formalism used in this chapter) is then spelled out in the lower clause(s). The implications of this are that each instance of di mii 'the child' in (55b-d) are base-generated in place, with hen 'HE' then appearing out of nowhere in the following COMP, presumably to add
phonologically-filled material at the terminus of a movement chain.

There are, however, serious problems with the above scenario. For one, the configuration 'TOP-COMP-S' for each clause in a complex S would be highly unusual since there are no languages that I know of that have been or need be analyzed in this way (see Piou (1982a,b) and Koopman (1982a,b) for relevant discussions of S" in Haitian Creole). Second, to claim TOP for every clause would be to say that for the data we have looked at up to now, Move Alpha only applies to wh-forms and pronouns. That is, we would need to say that NPs and PPs (those constituents which may precede _hen_ 'HE, etc.' or _de_ 'THEY' - see (52) through (54)) are always base-generated in TOP, with a pronominal (again appearing out of nowhere) cyclically moved to COMP. With this analysis, we would then unnecessarily complicate the grammar by being forced to make special provisos for the movement of pronouns and wh-forms by excluding NP and PP R-expressions from the process. The greater generality that all such items can undergo movement would thus be lost. On these grounds, it is therefore unlikely that (56a) is the correct structure.

(56b) is likewise improbable. If _hen_ 'HE' appears in the subject position as a kind of resumptive pronoun after the preposing of _di mi_ 'the child' to the nearest A'-position (i.e. to the adjacent COMP position), then it
should be grammatical for *di mii to move to a higher COMP with *hen remaining behind as in (57).

57) *a ke *di mii fu [S *hen njan di kuku]
   he want the child for HE eat the cookie
Since (57) is ungrammatical, (56b) is doubtful by our first argument.

The second argument deals with how traces are properly governed in subject positions. Koopman (1983) claims that it is not the antecedent in COMP which properly governs a subject trace in many languages, but the COMP node itself. If this is correct, it accounts for a large body of data in a cross-section of languages from around the world. To explain the process, she proposes that in those languages which allow subject extraction, there is a COMP indexing rule such as (58) below (with the indices in parentheses).

58) \[COMP X''(i)\ldots \rightarrow [COMP(i) X''(i)\ldots ] \text{ iff COMP dominates only } i\text{-indexed elements}\]

The adjoiner in (58) above is added to exclude cases of long wh-movement where that-type forms appear in COMP. These are commonly ungrammatical as in *Who did John say that *t works hard. At any rate, in explaining the rule Koopman notes (p. 376) that "the index of a phrase contained in COMP can optionally percolate up if the COMP dominates only } i\text{-indexed elements."}
Koopman supposes from the above discussion that if a language does not have a COMP indexing rule, then the only way that subject extraction can occur is if a resumptive pronoun is present in that position. According to her reasoning, a resumptive pronoun does not need to be properly governed since it is the "lexicalization" of a trace. Such is the case in Vata, a West African language of the Kru family spoken in the Ivory Coast which exhibits similar wh-phenomena as SA in regard to wh-questions, NP focus and relativization. However, unlike SA, when subjects are extracted in Vata, a resumptive pronoun obligatorily appears. Note (59).

59a) ka mO 0 le saka (Koopman 1983: 367)
   man PRON he eat rice
   'It is the man who is eating rice.'

b) *ka mO le saka

If there is not a COMP indexing rule in SA like Vata, then we would expect that hen 'HE' in (55b) would be a resumptive pronoun, have a structure like (56b), and always occur at the extraction site. Otherwise, there would be no reason for hen to appear in subject position. However, hen is quite different from the Vata resumptive pronoun O 'he' in (59a). Unlike resumptives, hen does not remain at the extraction site in (55c,d) as is necessary in Vata for reasons of proper government, but, rather, accompanies the NP in its cyclic COMP-to-COMP movement. hen is also
optional except when the dislocated subject is in a COMP node immediately dominating the extraction site. This would again be impossible if *hen* were needed to replace a trace that would not be properly governed. For these reasons, there is no motivation for concluding that *hen* 'HE' is a resumptive pronoun or for assuming the structure in (56b).

There now is only (56c). This should be the proper structure since as shown in (55), *hen* 'HE' always moves with a dislocated NP and as such, is best looked at as a kind of postnominal determiner within NP which surfaces only with the application of Move Alpha. Note that it is not just the head of a NP that is so marked (with *hen*), but the entire NP. Thus, with the focussing of a complex NP as in (60), *hen* branches from the maximal projection of NP (i.e after the relative clause) and appears NP-finally at PF.

60)  
\[
\begin{array}{c}
S' \\
\downarrow \\
NP \\
\downarrow \\
S' \\
\downarrow \\
NP \\
\downarrow \\
\text{COMP} \\
\downarrow \\
\text{Di gania di Kofi njan e kaba hen mi boi e}
\end{array}
\]

the chicken that Kofi eat finish IT I cook

'It was the chicken that Kofi finished eating that I cooked.'

Furthermore, with (56c) the structure agreed upon, there is now no need to deal with double movement, the source of *hen* in base structure, and other doubtful and totally
unmotivated considerations. On the other hand, with *hen* 'HE, etc.' (and *de* 'THEY') a part of NP and thereby preposed with the rest of a NP, movement is cyclically COMP-to-COMP, a rendition of Move Alpha consistent with GB theory and all other data and analyses presented in this volume.

2.3.2.2 Verb Copy. Verb copy has a somewhat different pattern than NPs. Whereas a verb also uses a COMP-initial position in the copying process, the element which copies in that position is not the verb itself, but an exact phonological copy. Note the pattern in the initial clauses of (8) in (61) below.

61a) si Kofi si di mujee bi- ta- wooko a di keiki
   see Kofi see the woman TNS-ASP-work at the church
   'Kofi SAW the woman working at the church.'

b) luku a ta- luku di mii ta- ko a lio
   watch he ASP-watch the child ASP-come from river
   'He is WATCHing the child coming from the river.'

Not only do verbs have this pattern, but also what we have called predicate adjectives when functioning as the head of a VP. That is, SA speakers do not distinguish between adjectives and verbs in this context, a characteristic shared with other creole languages. As we saw in (18), (23) and (24), like stative verbs, TNS and ASP markers may precede predicate adjectives with exactly the same effect: they are interpreted as simple past with *bi* and
as inchoative with \textit{ta}. For these reasons, predicate adjectives are best looked at as stative verbs which, like other verbs, contain the features \([+V, -N]\) (we will continue to use the label 'predicate adjective' however). Now note that verb copy of these formatives in (62) (from the Ss in (23) and (24)) is exactly like other verbs.

62a) wisiwasi di womi wisiwasi

    worthless the man worthless

    'The man is WORTHLESS.'

b) lusu di banti lusu

    loose the belt loose

    'The belt is LOOSE.'

With verb copy from the second, or subordinate clauses of (8) to S-initial position, the pattern is the same as in the data above, but variably grammatical. That is, from the four consultants who produced and/or commented on verb copy of the second of the two verbs in these Ss, two allowed the process and two judged the results to be ungrammatical. This variability of judgment is represented by \(\text{(*)}\) in (63).

63a) \(\text{(*)}\)wooko Kofi si di mujee bi- ta- wooko a di keiki work Kofi see the woman TNS-ASP-work at the church

    'Kofi saw the woman WORKing at the church.'
b) (*)ko a ta-luku di mii ta-ko a lio
    come he ASP-watch the child ASP-come from river
    ala
    there

    'He is watching the child COMing from the river there.'

The exact limits of this constraint in synchronic SA have yet to be determined, but some observations can at least be made here. For one, the restriction only affects verbs in subordinate clauses and not PPs, NPs, nor matrix verbs. We saw in (61) and (62) that matrix verbs easily copy to S-initial position. Similar observations concerning the process have been made for other creoles by, among others, Jansen et al. (1978), Muysken (1977), and Williams (1971, 1976). In any case, we'll look at the issue in more depth in Chapter III.

Second, these same SA speakers who rejected verb copy from the complements of perception verbs also generally reject verb copy from other subordinate contexts, including that from complements introduced by the complementizer-like formatives fu 'for' and taa 'say'.

64a) (*)boi di mujee bai faa fu+a boi di gbamba

    cook the woman buy fat for-she cook the meat

    'The woman bought fat to COOK the meat.'
b) (*)njan a ke fu di mii njan di muunga
   eat he want for the child eat the porridge
   'He wants the child to EAT the porridge.'

   c) (*)luku a meni taa di womi mii luku
      look-at he think say the man child look-at
      di wosu
      the house
      'He thinks that the little boy LOOKed AT the house.'

Conversely, the variably grammatical status of (64a,b,c) indicates that those consultants who accepted subordinate verb-copy from perception verb complements also accept such copy from other complements, including those introduced by fu 'for' and taa 'say'.

Third, all four consultants who judged the previous Ss accepted verb copy in subordinate COMP positions.

65a) a ke fu njan di mii njan di muunga
   he want for eat the child eat the porridge
   'He wants the child to EAT the porridge.'

b) a meni taa luku di womi mii luku di wosu
   he think that look-at the man child look-at the house
   'He thinks that the little boy LOOKed AT the house.'

The literal glosses in (65) are the same as in (64), but this does not necessarily mean that the SA meanings are identical. Verb copy generally adds emphasis to the verb, but there may be differences in such emphasis depending on the ultimate landing site. As yet, such differences, if
they exist, are unknown. Nevertheless, verb copy to such positions as in (64) is possible in SA because fu 'for' and taa 'say', as mentioned in section 2.2.2.1 and Chapter I, are not real complementizers, but are verbs within finite Ss preceded and followed by S' nodes. They thus allow verb copies to follow.

Having said all this and presented the few characteristics that are readily noticeable, about the only thing that we can claim with certainty at this moment is that some SA speakers have begun limiting the scope of verb copy to immediately dominating COMP nodes and have internalized different grammars with respect to this rule. Also, based on work in variation theory (e.g. Bailey 1973; Bickerton 1971, 1973; Labov 1972a, b; Rickford 1979, Weinreich et al. 1968; among others.), variation such as there is in SA with verb copy should represent change in progress. 13 If this is true, then as Lightfoot (1979: 143) points out, certain change is gradual rather than radical, "appearing first in restricted environments and then becoming more general..." At any rate, as far as the

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13. In those cited works, we find, basically, that change first involves variation, but the opposite, or that variation signifies change in progress, is not necessarily true. The relevant statement, I think, is found in Weinreich et al. (1968: 188). They observe that "not all variability and heterogeneity in language structure involves change; but all change involves variability and heterogeneity."
formal nature of the emerging constraint, it may be that it is related to the difficulty of verbs in leaving trace (t). This last point is treated in the ensuing discussion and in Chapter III.

The stipulation that a verb or predicate adjective remains at the extraction site and an exact phonological copy of itself appears in COMP is probably motivated by some combination of the principles found in θ-, government and Case theories. According to the Projection Principle of θ-theory, Chomsky (1982:8) notes that "the θ-marking properties of each lexical item must be represented categorically at each syntactic level: at LF, S-structure, and D-structure." As a consequence, any moved item (i.e. focussed element in regard to SA) inherits the θ-marking properties by virtue of its original position (represented by e so far in this work) being a θ-position.

In relation to a verb itself in COMP rather than copy, a verb is not θ-marked (i.e. assigned a θ-role) but is a θ-marker by virtue of its being the head of the category VP. It thus θ-marks its complements and indirectly a subject (the exact mechanism of which is still open to question). In order for these θ-marking properties to be maintained throughout to LF, we offer the proposal that the
overt presence of the verb in its base-generated position at D-structure is necessary. 14

Concerning government, only governors (i.e. heads of maximal projections) may assign Case to NP arguments. If the verb is in COMP and a resumptive-type copy is in the base position, then we offer the added claim that this copy, not being the actual head of a projection, should not be able to govern. And if there is no government, there cannot be Case assignment of phonologically-filled arguments, a violation of Vergnaud's (1979) Case Filter.

From a somewhat different approach to government and Case theory, Chomsky (1981:94) assumes that verbs assign structural Case at S-structure. The rule Move Alpha spans D- and S-structures in that the θ-properties of an item at D-structure are reinterpreted at S-structure with the application of the rule. That is, Move Alpha applies at D-structure and results in an S-structure which is then reconstruced. If this is true, and since all NPs with phonological content must receive Case by the Case Filter, then a copy of a verb in its base position would disrupt government and normal Case assignment. Furthermore, by the adjacency requirement to Case assignment (Chomsky 1981: 94–

14. Adrienne Lehrer (p.c.) takes the functional view that since there is no inflectional morphology in SA, the verb needs to be in its base position to maintain the distinction between subject and object. If the verb is not in its base position, there could be a parsing problem.
which appears to be a characteristic of configurational languages (see Hale (1978)), a Case-assigned NP must be adjacent to its governor. One of the implications of this principle for SA is that if a verb is in a COMP position and not a copy, then the Adjacency Requirement would be violated and no Case assignment should ensue. And if no Case is assigned to NPs with phonological content, then the Case Filter would again be violated. Thus, through the requirements of Θ-, government and Case theory, a principled account is forthcoming for the necessity of a verb copy in COMP rather than the verb itself. Without such a situation, the grammatical relations of a verb with its accompanying NPs could be unsustainable. Still left undiscussed, however, are those treatments of verbs which express positions quite different from these observations here. For example, Hilda Koopman (1984) holds the view that verbs actually can dislocate and leave resumptive trace. All grammatical relations are then maintained through the verb trace. We'll return to these claims in Chapter III.

2.3.2.3 Prepositional Phrase Focus. The set of prepositions in SA taking NP complements is small and includes the general locative (\textit{a} 'in, on, at, etc.'), the Comitative and Instrumental (\textit{ku} 'with'), and the locative/possessive/Secondary Theme (\textit{fu}). Of the three, only
a and **ku** will be discussed here, with **fu** being relegated to Chapter IV.

The exact meaning of **a** is primarily determined by the semantics of the verb or (apparent) verb compounds which accompany it. Just looking at motion verbs, for example, the following English glosses are possible.

66a) a kai a di wata
   he fall into the water
   'He fell into the water.'

b) a kai a di goon
   he fall onto the ground
   'He fell onto the ground.'

c) a go a matu
   he go to jungle
   'He went to the jungle.'

d) a ko a lio
   he come to river
   'He came to the river.'

e) a waka a di wosu
   he walk around the house
   'He walked around the house.'

67a) a waka go a matu
   he walk go towards jungle
   'He walked towards the jungle.'
b) a waka ko a wosu
   he walk come towards house
   'He came towards the house on foot.'

c) a go go a matu
   he go go into jungle
   'He went into the jungle.'

d) a ko ko a matu
   he come come into jungle
   'He came into the jungle.'

However, a may have a positional, stative meaning either following a NP or the locative copula de 'be'.

68a) Kofi njan di njanjan a di paabi
    Kofi eat the food on the plate
    'Kofi ate the food on the plate.'

b) de si di mujee mii a wan dsai
    they see the woman child in a garden
    'They saw the little girl in a garden.'

69a) di masini de a di tafa liba
    the machine be on the table top
    'The machine is on the top of the table.'

b) dee sikoutu de a di wosu fu Magda
    the(pl.) policeman be at the house for Magda
    'The policemen are at Magda's house.'

In (68), a di paabi 'on the plate' and a wan dsai 'in a garden' respectively indicate that the noun which precedes each is located (i.e. positioned) at the place indicated by
the PP headed by a. Similarly, the predicate nominals in (69) are located in the positions indicated by the a-phrases following de 'be'.

ku, from Portuguese com 'with', besides its prepositional Instrumental function as shown in (70), also serves prepositionally in (71) as a Comitative marker (which, as a working definition, indicates that two NPs share one GF).

70) de bi-suti pingo ku goni
    they TNS-shoot pig with gun
    'They had shot a pig with a gun.'

71) Samo ku di mujee tsa ko wata a di dagu
    Samo with the woman carry come water to the dog
    'Samo and the woman brought water to the dog.'

Although in many languages the Comitative function is performed by conjunctions (e.g. English: John and Mary...), and given certain characteristics of Comitative ku, such a categorial judgment could easily ensue. Nevertheless, as we will soon see such a judgment is incorrect if we take into consideration all features of this formative. Let's first begin, though, with the general properties of ku 'with' and a 'at, in, etc.'

Like verbs, ku (both Instrumental and Comitative) and general locative a are governors and Case-mark their argument NPs. In (72), (73) and (74), only the Objective en
'him/her/it' and never the Nominative a 's/he/it' may follow ku and a.

72a) a naki di sindeki ku en
    he hit the snake with it
    'He hit the snake with it.'

b) *a naki di sindeki ku a
    ...
it

73a) di womi ku en ondoofini di woto
    the man with him analyze the story
    'He and the man analyzed the story.' 15

b) *di womi ku a ondoofini di woto
    ...

74a) a kooga neen
    a+en
    he fall on-it
    'He fell on it.'

15. Perhaps a better gloss for (73a) would be (i) below.

i) 'He and the man analyzed the story.'

However, wherever the placement of he in English note that Objective Case-marking within a subject NP conjunct is either substandard (ii) or ungrammatical (iii) unless the pronominal follows a preposition within that NP as in (iv).

ii) ?Him and the man analyzed the story.

iii) *The man and him analyzed the story.

iv) The man with him analyzed the story.
b) *a kooga naa
   a+a
   ...on-it

If Comitative ku in (73) were a conjunction as Rountree and Glock (1982: 97) state, then according to the principles of government and Case theory, the AGR element of INFL should govern and Nominatively mark both conjuncts equally. Since (73b) with an overtly marked Nominative pronominal is ungrammatical, and because (69a) with an Objectively marked pronominal is acceptable, we conclude that Comitative ku, like Instrumental ku (72a) and locative a (75a), is most likely prepositional since by GB theory, that category Objectively Case-marks its NP complements (if there is no differentiated Oblique Case).

However, before we can conclude that both kus and a are prepositional, we must show that they are different from verbs which also Objectively Case-mark their NP complements in SA. With this in mind, we find that unlike verbs, neither ku nor a can appear in main-verbal position.

75a) *u a di wosu
    we at the house

b) *u ku di pau
    we with the stick

They can neither be tensed with bi nor can the ASP marker ta be prepositioned before them.
76a) *a naki di sindeki bi- ku di pau
   he hit the snake TNS-with the stick
b) *a naki di sindeki ta- ku di pau
   ...ASP...
77a) *di womi bi- ku di mujee ondoofini di woto
   the man TNS-with the woman analyze the story
b) *di womi ta- ku di mujee ondoofini di woto
   ...ASP...
78a) *a kooga bi- a di sitonu
   he fall TNS-on the stone
b) *a kooga ta- a di sitonu
   ...ASP...

Nor can they copy as do verbs.
79a) *ku de naki di sindeki ku di pau
       with...     ...with...
b) *ku di womi ku di mujee ondoofini di woto
       with...     ...with...
c) *a de kooga a di sitonu
       on...     ...on...

Given the above features, we now have no hesitation in concluding that both kus and locative a could not possibly be verbs and are in fact prepositions.

Turning now to movement, the characteristic pattern for prepositions in SA is that they can never be stranded; a preposition must always accompany its complement NP whether movement is due either to constituent focus or questioning.
In this respect SA again, as with the absence of Exceptional Case Marking (see (30) through (32) and the accompanying discussion), follows the least marked alternative. Van Riemsdijk (1978), in a comparative study of PP movement, found stranding to be very uncommon and thus highly marked. At any rate, note first the pattern as it applies to locative a in (80) and then the duplication of the pattern with Instrumental ku in (81).

80a) a go a di womi wosu
   he go to the man house
   'He went to the man's house.'

b) a di womi wosu a go e
   to the man house he go
   'It was to the man's house that he went.'

c) naase a go e
   a+unse
   to-where he go
   'Where did he go to?'

d) *di womi wosu a go a e
   the man house he go to

e) *unse a go a e
   where...

f) *a a go e di womi wosu
   to he go...
81a) a koti di fisi ku di faka
    he cut the fish with the knife
    'He cut the fish with the knife.'

b) ku di faka a koti di fisi e
    with the knife he cut the fish
    'It was with the knife that he cut the fish.'

c) ku andi a koti di fisi e
    with what he cut the fish
    'With what did he cut the fish.'

d) *di faka a koti di fisi ku e
    the knife he cut the fish with

    e) *andi a koti di fisi ku e
    what...

f) *ku a koti di fisi e di faka
    with he cut the fish the knife

In (80) and (81), Instrumental ku and locative a are
dislocated with their complement NPs. However, in neither
(d) nor (e) of both data-sets can an Objective NP nor its
corresponding wh-form be focussed alone. Nor can ku or a be
separately focussed without its NP complement as in (f) of
(80) and (81).

Concerning the prepositional phrases in the
complements of the perception verbs of (8a,b), they adhere
perfectly to the pattern exemplified in the above data.
82a) a di keiki Kofi si di mujee bi- ta- wooko e
at the church Kofi see the woman TNS-ASP-work
'It was at the church that Kofi saw the woman working.'

b) naase Kofi si di mujee bi- ta- wooko e
at-where Kofi see the woman TNS-ASP-work
'Where did Kofi see the woman working?'

c) *di keiki Kofi si di mujee bi-ta-wooko a e
the church...

d) *unse Kofi si di mujee bi-ta-wooko a e
where...

e) *a Kofi si di mujee bi- ta- wooko e di keiki
at Kofi see the woman TNS-ASP-work the church

83a) a lio a ta- luku di mii ta- ko e
from river he ASP-watch the child ASP-come
'It is from the river that he is watching the child coming.'

b) naase a ta- luku di mii ta- ko e
from-where he ASP-watch the child ASP-come
'Where is he watching the child coming from?'

c) *lio a ta-luku di mii ta-ko a e
river...

d) *unse a ta-luku di mii ta-ko a e
where...

e) *a a ta- luku di mii ta- ko e lio
from he ASP-watch the child ASP-come river
Returning for a moment to Comitative ku, we mentioned earlier that it headed a prepositional phrase within a NP and that one could misinterpret some of its characteristics as pertaining to a conjunct rather than a preposition. Let's therefore review some of these features, but at the same time keeping in mind that Comitative ku Objectively Case-marks its complements as we saw in the (a) Ss of (72) through (74).

For one, unlike Instrumental ku and locative a which as far as is known are always immediately dominated by VP nodes and thus may independently prepose along with their complements as one constituent, Comitative ku with its complement is a part of a larger NP and may thereby not so dislocate. Consider the pattern below.

84a) Samo ku di mujee hen e tsæ ko wata da
   Samo with the woman HE carry come water give
di dagu
the dog
'It was Samo and the girl who brought water for the
dog.'

b) *Samo hen e ku di mujee tsæ ko wata da di dagu
   Samo HE with the woman...

c) *ku di mujee (hen) Samo e tsæ ko wata da di dagu
   with the woman (SHE) Samo...

d) *ku Samo e di womi tsæ ko wata da di dagu
   with Samo the woman...
e) *di mujee (hen) Samo ku e tsa ko wata a di dagu
the woman (SHE) Samo with...

In (84b) through (e), notice that nothing can move
out of the subject NP position to COMP. Now just this data
is explicable from two different viewpoints. If ku 'with'
in (84) were a conjunction, then from Ross' (1967)
Coordinate Structure Constraint, neither conjunct could
independently move exactly as seen above. Similarly, if
both NP and S are bounding nodes in SA, (bounding nodes and
Subjacency will be discussed in detail in Chapter III), then
the same results would ensue since any element from within
the subject NP would have to cross both an NP and S node to
reach the COMP-initial position, a violation of Subjacency.
And again the exact same pattern would ensue. However as
previously noted, ku, whether Instrumental or Comitative,
Objectively marks its NP complement and only prepositions
and verbs may do this. In addition as we see in (84a), when
the entire subject NP is dislocated, the focus marker hen
'HE, etc.' rather than de 'THEY' appears; this can only
happen when the head of a NP is singular rather than plural
(see section 2.3.2.1). If Comitative ku were a conjunction,
then we would have de 'THEY' separating the subject from the
rest of the S since the two conjuncts combined would
constitute a plural NP. Thus, because we have hen in (84a)
and not de, the only viable conclusion is that Comitative
ku, like its Instrumental homonym, is a preposition.
2.4 Summary

We began this chapter by discussing the questioning process in general and, in relation to movement, to wh-question formation in particular. However, in discussing NP extraction, questioning and movement of PPs and verb copy, we found that while each has a distinctive pattern, each apparently also involves the use of COMP nodes as copy or landing sites (in the sense of Baltin (1978)). With NPs and PPs and their respective wh-forms, it is COMP-to-COMP cyclic movement since each has as its landing site a clause-initial position which, if Chomsky (1977, 1980, 1981, 1982) is right in his formulation of wh-type movement in English (and other languages), must be COMP. Concerning verbs, copy should likewise occur exclusively in COMP positions since this should be the only node available for the process (see section 2.3.2.1 and (128c) and (129) in Chapter IV). Given the facts and the analyses, then, the structural configuration presented in (11) for the set of Ss in (8) should be accurate. However, further discussion will ensue before the structures are absolutely accepted as valid.

Verb copy and COMP-to-COMP-type movement of NPs and PPs was also shown to be limited either to apparent simple Ss (e.g. (53, 54, 61, etc.)) or to those with an apparent matrix-subordinate relationship (e.g. (10, 51, 63, 64, 82, 83, etc.)); the processes never apply as far as we can tell to sentential coordinate structures (e.g. (36, 37, etc.)).
We might say, then, that such movement and copy define a matrix-subordinate relationship and the lack of such typifies coordinate structures. While this is not universally true as will be shown, it is sufficient for the moment to conclude that when movement takes place or a verb copy occurs from the second clause of a string (or a more deeply embedded clause) to S-initial position, we are dealing with a matrix-subordinate configuration. Let us now take a closer look at these processes, and in particular, movement and copy from subordinate clauses in SA.
CHAPTER III

CONSTITUENT DISLOCATION

Although we briefly reviewed noun phrase and prepositional phrase dislocation and the copy of verbs in sections 2.3.2.1, 2.3.2.2 and 2.3.2.3 of Chapter II, those discussions were necessarily introductory and largely utilized the processes as diagnostics to distinguish between sentential conjuncts and subordinate clauses. Still to consider, however, are the many details and possible explanations associated with verb copy and constituent extraction. With this the case, then, this chapter will primarily focus upon Chomsky's (1982: 33) definition of Move Alpha and how it applies to SA. This will include a discussion of the notions of landing sites in SA, government, proper government, trace and its categorial status, binding, Subjacency, the determination of bounding nodes, and an extensive justification for postulating copies of verbs in COMP positions rather than verb movement to that position.

3.1 Move Alpha

Let us look once more at the complements of perception verbs in (8) of Chapter II. Because of the
possibility of movement to matrix-initial position in those Ss (e.g. (10, 51, 82, 83)), then the Ss in (8) have a matrix-subordinate relationship with a structural configuration at least like (1) below.

1) Kofi si [S di mujee bi- ta-wooko a di keiki]
   Kofi see the woman TNS-ASP-work at the church
   'Kofi saw the woman working at the church.'

But with movement from the embedded clauses in these Ss, constituents are adjoined to clause-initial positions: to subordinate-initial in (9) of Chapter II and S-initial in the examples cited in (10) and (82) of that chapter. In effect, then, movement so far seen in SA is COMP-to-COMP and a more accurate rendition of the Ss in (8) of Chapter II is (2) below (or a structure exactly as postulated in (11) in Chapter II).

2) [S' [S Kofi si [S' [S di mujee bi-ta-wooko a di keiki ]]]]
   'Kofi saw the woman working at the church.'

In fact, all such structures so far looked at in regard to movement seem to have the above configuration (or one very similar) since in the representative data in Chapter II, a 'landing site' has been pre-clausal (i.e. COMP). In short, all applications of Move Alpha in Chapter II have been of the English wh-variety (i.e. to COMP) and none of the English NP variety (i.e. to a θ'-position clause-internally). This will be categorically supported by the
analyses and data. This generalization will thus remain in effect throughout the volume.

Chomsky (1982: 33) defines Move Alpha as follows:

3) Move Alpha is the relation between an antecedent and a gap where:
   a) The antecedent lacks an independent Θ-role (and is therefore in a Θ'-position).
   b) The gap is properly governed (if it is trace).
   c) The relation is subject to bounding theory (Subjacency).

'Alpha' of Move Alpha refers to any category which can undergo movement. In the case of SA, we saw in Chapter II that NPs as in (51) to (54) and PPs in (80) through (83) can dislocate, but not verbs and adjectives which copy rather than dislocate (e.g. (61) through (64)). What, then, is the common denominator of the moved elements? It cannot be that the major categories involved in an S structure can be extracted. These include NP, VP and INFL. While NPs certainly can be focussed, TNS and ASP particles cannot (see (12), (13) and (14) of Chapter II). Nor can a VP prepose. In all instances the extraction of a V with its complement(s) (i.e. VP) is ungrammatical as exemplified in (4), (5) and (6) below.

4a) di mujee go a di wosu
   the woman go a the house

'The woman went to the house.'
b) *go a di wosu di mujee
5a) Kofi si dee gandji fisi
   Kofi see the(pl) mean fish
   'Kofi saw the piranhas.'

b) *si dee gandji fisi Kofi
6a) Samo naki di womi ku di pau
   Samo hit the man with the stick
   'Samo hit the man with the stick.'

b) *naki di womi ku di pau Samo

The common denominator is that only the θ-marked arguments of a verb can move in SA. Thus NP and PP arguments may dislocate if they are θ-marked by a verb, but verbs or VPs may not since they are not arguments nor are they θ-marked. If in fact verbs do not move in SA (to be discussed in section 3.3.3), then we may formulate Move Alpha in SA as in (7) below.

7) Move Alpha/SA > Move Xmax(θ)
(7) translates as the following: the application of the rule Move Alpha in SA implies (i.e. >) the movement of a Xmax(θ), which is a maximal projection θ-marked by a verb.

If (7) represents the unmarked parameter setting for Move Alpha, then according to Derek Bickerton (p.c.), by dropping the θ-specification, the rule would admit movement of VPs. That is, if parameters get marked through the eradication of feature specifications and if we presuppose
that the θ-specification drops in a more marked form of the rule, then (7) without theta would be 'Move Xmax' (i.e. move a maximal projection). Move Alpha would now allow VP-movement (along with dislocation of all other maximal projections) but not verb movement, which is the correct result for English and similar languages.

3.2 Movement to θ'-Positions

The gap mentioned by Chomsky in (3) is of course the same gap discussed in his 1977 paper and is the result of the dislocation of some constituent from its D-structure base-generated position to an unoccupied θ'-position at S-structure. In the examples of movement which we have looked at up to now in this work, it has been only to θ'-positions which at the same time are non-Argument (A') positions. In other words, movement has been to COMP by means of COMP-to-COMP cyclic movement, thus satisfying stipulation (a) of (3).

But what about movement to A-positions? As stated previously, COMP-to-COMP (i.e. A'-to-A') movement is the only type there is in SA; there simply is no dislocation to A-positions which are θ'-positions. While there are some pleonastically-filled subjects in SA with predicate adjectives, we nevertheless find that SA does not allow constituents to dislocate to these positions. Linguists within the GB framework normally cite extraposition,
"raising" phenomena and passive constructions as exemplifying such movement. Analyses of these and other structures in SA, but in the context of the NP-type transformational processes of English, should therefore clarify the situation a bit.

3.2.1 Pleonastic Pronouns, Extraposition and Raising

Most structures which may translate with pleonastic elements in English are filled with referential subjects in SA. Thus, there is no there-type element in SA as in there is/are.

8) wan dagu de a di mii wosu
   a dog be at the child house
   'There's a dog at the child's house.'

There is also no such thing as pleonastic it with 'weather' verbs. In fact, there are no 'weather' verbs in SA in the syntactic sense of English (although there are 'weather' predicate adjectives with such an element - to be discussed shortly). To express climatic conditions in SA which are conveyed verbally in English, a 'weather' NP, so to speak, precedes an action verb.

9a) tsuba kai
    rain fell
    'It rained.'
b) tsuba ta-kai  
   rain ASP-fall  
   'It is raining.'

c) a ta-kai  
   it ASP-fall  
   'It is falling.'

d) *a (ta-) tsuba  
   it (ASP-)rain

10a) sonu sende  
    sun shine  
    'The sun shined.'

b) sonu ta-sende  
    sun ASP-shine  
    'The sun is shining.'

c) a (ta-) sende  
    it (ASP-)shine

Note in (9) and (10) that the verbs following the 'weather NPs' are of the action class (see section 2.2 of Chapter II) since the stem-forms (or more technically, an action verb with a $\emptyset$ TNS marker) indicate a past time matrix and the ASP marker ta (combined with a $\emptyset$ TNS marker) orientates the action to a present, continuative sense. 

Note additionally in (9-10c) that a is not pleonastic in these instances but is a normal pronominal substitute for tsuba 'rain' in (9b) and sonu 'sun' in (10b).
There is similarly no subject-to-subject raising in SA like (11) in English.

11a) It seems that John is sad.

b) John seems to be sad.

The best way to capture (11a,b) is with a factive complement as in (12).

12) mi meni taa Johanesi ta-tsal i
   I think say Johanesi ASP- sad
   'I think that Johanesi is (being) sad.'

In regards to predicate adjectives, as previously observed these are the only S-types which may be viewed as containing pleonastic pronouns in SA. Consider first (13) below with fanondu 'important'.

13a) a de fanondu taa Samo musu go luku libawojo
    it be important say Samo must go look-at above-eye
    'It is important that Samo should go look at the moon.'

b) *a de fanondu Samo musu go luku libawojo
    it be important ø Samo must go look-at moon

From (a) and (b) above, it should be obvious that fanondu 'important' takes a factive complement which must be introduced by taa 'say'. However, unlike English, nothing

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1. According to Pieter Seuren (p.c.), fanondu 'important' is from Dutch van 'of' and nood 'need'. He adds that all such SA and Sranan predicate adjectives borrowed from Dutch are preceded by a copula such as SA de 'be' in (13a,b). However, all other properties of predicate adjectives in SA, with or without de 'be', seem to be the same.
can be moved into the position which a 'it' fills. If the embedded \ldots\text{taa Samo musu go luku libawojo} \ldots that Samo must go look at the moon' in (13a) represents extraposition as is possible in English, then we would expect (14) to be grammatical.

14) *taa Samo musu go luku libawojo de fanondu
   say Samo must go look-at moon is important

The fact that (14) is not grammatical suggests that extraposition is not at work here and that (13a) is the base structure.

Now consider (15) and (16).

15a) Samo musu go luku libawojo / a de fanondu
   Samo must go look-at moon / it be important
   'Samo must go look at the moon. It is important.

b) *Samo musu go luku libawojo de fanondu

c) *taa Samo musu go luku libawojo a de fanondu

16a) libawojo a de fanondu taa Samo musu go luku \text{e moon} it be important say Samo must go look-at
   'It is the moon that it is important that Samo should go look at.'

b) andi a de fanondu taa Samo musu go luku \text{e what...}
   'What is it that is important that Samo should go look at?'

c) *Samo a de fanondu taa \text{e musu go luku libawojo}
   Samo...
d) *ambe a de fanondu taa e musu go luku libawojo

who...

From (15) it seems clear that the complement clause can neither replace a 'it' ((15b) - see also (14)) nor be preposed (15c). What is possible and the pause in (15a), as symbolized by /, adds weight to the conclusion, is that Samo musu go luku libawojo 'Samo should go look at the moon' and a de fanondu 'it is important' can either be generated as independent Ss, or can form a matrix-subordinate structure, with (13a) simply being the result of the base-generation of such a structure and not a product of extraposition.

(16) for its part exhibits one of the very few asymmetricities that there is in the language involving subject and object movement (to be discussed later in the chapter). However, the important point here is that movement, where grammatical (i.e. (16a,b)), is to the COMP-initial position rather than to the slot occupied by a 'it' as in (17), although the base-generation of referential NPs in subject position is possible as in (18).

17) *libawojo de fanondu taa Samo musu go luku e moon be important say Samo must go look-at

18) libawojo de fanondu 'The moon is important.'

Also admitting pleonastic subjects, but only variably, are the 'weather' predicate adjectives previously mentioned. Consider (19).
19a) (a) (bi-) kendi
   it (TNS) hot
   'It is/(was) hot.'
   b) (a) (bi-) koto
   'It is/(was) cold.'

Pleonastic a 'it' may appear as in (19a,b) when reference is
to temperature in general. However, kendi 'hot' and koto
'cold' alone are additionally possible with exactly the same
reading, thus giving the impression that pleonastic elements
are not categorical in SA but are in the process of entering
the language.

Looking at tuu 'true', the observation gains
validity. When tuu 'true' is accompanied by a factive
complement, it can only appear without a 'it'; the
alternative is ungrammatical.

20a) tuu taa di womi go disa dee famii feen
    true say the man go leave the(pl) family for-him
    'It's true that the man left his family.'

b) *a tuu taa di womi go disa famii feen
   it true...

Following the principles of variation theory, the
noncategorical appearance of pleonastic a 'it' in the above
data is predicted if, in fact, the item is now entering the
language (see Footnote (13) of Chapter II).

Whatever the nature and direction of the change with
pleonastic a 'it', future work could decide the issue.
Nevertheless, of more importance for our present purposes, as we will presently see, is that kendi 'hot', koto 'cold' and tuu 'true' in (19) and (20) behave exactly like other predicate adjectives discussed in Chapter II. That is, other than the possibility of a $\emptyset$ or pleonastically-filled subject position, these forms also select for referential subject NPs and their pronominal substitutes.

21a) di wosu kendi
   the house hot
   'The house is hot.'

b) a kendi
   it hot
   'It (the house) is hot.'

22a) di keiki koto
    the church cold
    'The church is cold.'

b) a koto
    'It (the church) is cold.'

23a) di oto tuu
    the story true
    'The story is true.'

b) a tuu
    'It (the story) is true.'

We finally have the case of what is commonly known as Tough Movement. Consider (24) and (25) below.
24a) a taanga fu wasi di mii
    it tough for wash the child
    'It's tough to wash the child.'

b) di mii taanga fu wasi
    'The child is tough to wash.'

25a) a de fanondu fu hondi pingo
    it be important for hunt pig
    'It's important to hunt pig.'

b) pingo de fanondu fu hondi
    'Pig is important to hunt.'

In (24-25a), there is a pleonastic pronoun in matrix subject position, while in (24-25b), a referential NP, the object in (24-25a), occupies the matrix subject position.

Chomsky (1977) and Oehrle (1979) independently conclude that instances of Tough Movement in English such as in (26a,b) are the result of the base-generation of both the pleonastic and referential subjects in place.

26a) It is easy to please John.

b) John is easy to please.

According to Chomsky, the underlying structure of (26b) should be as in (27) (the details of which can be found in the reference).

27) John is [AP easy [S' [S PROarb to please John]]]

John then wh-moves to subordinate S' position and deletes, resulting in a S structure as in (28).

28) John is [AP easy [S' t [S PROarb to please t ]]]
With trace in the lower COMP in (28) and similar Ss, Chomsky purports to show that extraction of other constituents is impossible, a state of affairs consistent with wh-phenomena and movement theory in general.

Now consider (29) and (30) from SA.

29a) pingo de fanondu fu hondi a matu
    pig be important for hunt in jungle
    'Pig is important to hunt in the jungle.'
   b) *a matu pingo de fanondu fu hondi t
      in jungle...
   c) *naase pingo de fanondu fu hondi t
      in-where...

30a) a de fanondu fu hondi pingo a matu
    it be important for hunt pig in jungle
    'It is important to hunt pig in the jungle.'
   b) pingo a de fanondu fu hondi t a matu
      pig...
    'It is pig that it is important to hunt in the jungle.'
   c) andi a de fanondu fu hondi t a matu
      what...
    'What is it important to hunt in the jungle.'
   d) a matu a de fanondu fu hondi pingo t
      in jungle...
    'It is in the jungle that it is important to hunt pig.'
e) naase a de fanondu fu hondi pingo
tin-where...

'Where is it important to hunt pig.'

Note first that just as Chomsky concludes for English, there must also be an object EC following hondi 'hunt' in (29a) at D-structure since this verb strictly subcategorizes for a NP.

31a) di sembe hondi pingo
the person hunt pig
'The guy hunted pig.'

b) di sembe hondi
'The guy was hunted.'

And like (31a) with an object NP, a transitive and not a passive sense as in (31b) is the reading in (29a). This is the expected result if the object NP has moved to a subordinate COMP position and deletes as Chomsky supposes. We would likewise expect a result as in (29b-d); trace occupies the COMP and all other movement is prohibited.

Supporting the view that there is an occupied COMP node in (29) is (30a-e). If pingo 'pig' in (30a) remains in its base-structure position, leaving COMP unoccupied, then there is no hindrance to movement as there is in (29b,c). All internal arguments may wh-prepose to S-initial position in (30b-e). For these reasons, (29a) cannot be a case of movement to a Θ'-position and should have a S-structure
similar to (28), or something like (32) (the details of which will be explained in Chapter IV).

32) pingo de [AP fanondu [S' [S pro fu [S' t
pig be important for
[S pro(arb) hondi t ]]
hunt
'Pig is important to hunt.'

From the conclusion above concerning Tough Movement and from the previous analyses, there is no movement in SA of the English NP-type (i.e. to Θ'-,A-positions). The only type of dislocation which is so far permissible (indeed, which is possible given the facts and analyses) is from A'-to-A' (i.e. COMP-to-COMP). Let's now turn to the passive construction in SA and see if these structures involve NP-type movement.

3.2.2 Passive Constructions

Another quite common example which linguists cite as representing movement into Θ'-,A-positions is the passive construction. Here again, however, the passive must result from base-generated structures rather than from movement.

From the point of view of thematic relations as formulated in Fillmore (1968, 1970) and Gruber (1965) and discussed in Jackendoff (1974), the passive in English is formed by the transposition of a Theme or Goal NP to the Agent NP position. Syntactically, Chomsky (1981: 54)
formulates the D-structure of a passive as (33).

33) \( \text{NP e} \) INFL be \( \text{[V NP]} \)

With the application of Move Alpha, then, the overt NP (governed by the V at D-structure) is transposed to the [NP e], or the empty subject position. However, as Chomsky further notes, other options different than (33) are available to languages to express the passive. These are (Chomsky 1981: 122 (my numbering)):

i) Syntactic passives with movement and passive morphology (as in (33)).

ii) Passive morphology without movement.

iii) Movement with the sense of passive but without passive morphology.

iv) The passive sense with neither passive morphology nor movement.

If the above taxonomy also represents a hierarchy of complexity which, in turn, represents different levels of markedness, as seems likely (although there could be some debate on (ii) and (iii)), then (iv) would be the least marked and (i) (the English option) the most. SA falls under (iv). This means that a.) SA may have selected the least marked option, b.) it has no passive morphology, and c.) that a passive-like reading in SA is not the result of movement. Concerning (c), indeed if SA has no empty nor pleonastically-filled A-positions at D-structure except with predicate adjectives, then the passive as a result of Move
Alpha is impossible in most instances (more on predicate adjectives in a moment).

A passive sense (i.e. a passive reading but without any associated morphology) is achieved in SA through the base-generation only of a Theme NP in the syntactic subject position. There are no Goal-subject passives as is common in, for example, English in Ss such as The boy was given a book. Note the equivalent SA S in (34b).

34a) a da di mii di buku
    he give the man the book
    'He gave the boy the book.'

b) *di mii da di buku
    the boy give the book

The Saramaka interpret di mii 'the boy' in (34b) not as a Goal-subject, but as the Agent of the clause. The string is thus ill-formed since it is lacking a Goal NP.

A passive sense also applies only to action verbs and not to other verb-types. Note the pattern below.

35a) dee womi fufuu di moni jeside
    the (pl) man steal the money yesterday
    'The men stole the money yesterday.'

b) di moni fufuu jeside
    the money steal yesterday
    'The money was stolen yesterday.'
36a) di mujee bi- wasi dee koosu  
the woman TNS-wash the (pl) clothes  
'The woman had washed the clothes.'

b) dee kosu bi- wasi  
the(pl) clothes TNS-wash  
'The clothes had been washed.'

The pattern does not apply to cognition or desiderative verbs.

37a) a sabi di oto  
he know the story  
'He knows the story.'

b) *di oto sabi

38a) Molion lobi di gbamba  
Molion love/like the meat  
'Molion loves the meat.'

b) *di gbamba lobi

Nor does it apply to motion verbs which only take PP complements.

39a) a waka a di wosu  
he walk in the house  
'He walked in the house.'

b) *di wosu waka

c) *a di wosu waka

In summarizing the previous points concerning the SA passive, we have seen that only a specific subclass of verbs, [+transitive, +action], allow a passive sense and in
no instance in (35) and (36) above is there any additional morphology involved. For these reasons, there is no justification for positing a special D-structure passive string as (33) for English. Such a structure would be limited to only a specific subset of verbs and would be particularly ad hoc as it would run counter to the greater generalization that there are no A-positions which are available in the language to receive moved constituents. In addition, such a structure would run counter to an even greater generalization that COMP-to-COMP movement is the only type of transformational process in SA. It would thus be much more explanatorily adequate to limit the passive to the lexicon and to write a lexical redundancy rule, something like (40).

40) \[
\begin{array}{c}
+V \\
[+\text{action}] \\
+[\text{NP}(1) \quad \text{NP}(2)]
\end{array}
\quad <\leftrightarrow\quad
\begin{array}{c}
+V \\
[+\text{action}] \\
+[\text{NP}(2) \quad \text{NP}(1)]
\end{array}
\]

All verbs that are [+action] and which fit the lexical frame in the leftmost entry of (40) would have a special notation in the dictionary which says that the item may have a passive reading based on the passive redundancy rule. In this way, the passive will be a property of the lexicon and will not in any manner be a result of the
syntax, a formulation consistent with the facts. The passive also cannot be a counterexample to our conclusion that all movement is COMP-to-COMP principally because the COMP is the sole node with action verbs that is lexically-free and able to receive dislocated elements (see (35) and (36)). Thus, based on the previous analyses, all movement in SA is to A'-positions (i.e. COMP-to-COMP) and none to A-positions (i.e. NP-type preposing).

3.3 Government, Proper Government, and Trace

The gaps in the data with moved constituents have so far been represented by the neutral $e$, with a more specific designation awaiting a discussion of its categorial status. By stipulation (b) of (3) and by the Empty Category Principle (ECP), an $e$, if it is a result of Move Alpha (and thereby trace), must be properly governed, "a narrower concept than government" (Chomsky 1982: 7). Since these two concepts, government and proper government, are quite important to the theory of SA grammar being developed here (and are basic to GB theory), it would be wise to review them and their relationship to the notion of trace.

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2. Markey and Fodale (1980) claim that passive structures in creole languages are a result of lexical diathesis. That is, according to their analysis, creole speakers are particularly predisposed to develop passive structures like those described for SA.
In Chapter I of this work, we have adopted the concept of government tentatively assumed in Chomsky (1982: 19). While it is not the last word on the topic, it seems adequate for our purposes. Following Chomsky, "\(a\) governs \(\beta\) if \(a = X^0\) (in the sense of X-bar theory), \(a\) c-commands \(\beta\), and \(\beta\) is not protected by a maximal projection." Briefly, by \(X^0\) is meant that the head of a maximal projection (i.e. noun, verb, preposition, adjective and INFL - see section 1.2) governs its complements if they are not protected by another maximal projection; in this situation a governor may govern the entire structure but nothing within it. Thus a verb, for example, will govern an entire PP, but because it is a maximal projection, will not govern its complement NP (see section 3.3.2 for a more in depth discussion).

Finally, a governor must c-command the governed constituent. By the definition of c-command presented in Chapter I from Sportiche and Aoun (1981), an element \(a\) c-commands another (\(\beta\)) if \(a\) is dominated by a minimally maximal category which also dominates \(\beta\).

In regard to trace, by definition it occupies the gap left by a dislocated constituent through the application of Move Alpha. If the head of a maximal projection governs that position before displacement, then it also governs the gap (i.e. trace) after displacement. Applied to \(wh\)-type NP movement common in SA, the head of each respective maximal projection below governs each trace since the focussed NPs
were governed in those positions before extraction.

41a) di mujee Kofi si t bi- ta- wooko a di keiki
    the woman Kofi see TNS-ASP-work at the church
    'It is the woman that Kofi saw working at the church.'

b) di womi Molion jei t bi- sei di fou
    the man Molion hear TNS-sell the bird
    'It is the man Molion heard selling the bird.'

3. Again, as we noted in Footnote (2) of Chapter II, it is difficult to adequately capture the TNS marking in many SA complements such as (41a,b,c).

41c) di fou Molion jei di womi bi- sei t
    the bird Molion hear the man TNS-sell
    'It is the bird Molion heard the man selling.'

In (41a,b), the [+TNS] element bi within INFL, which is the head of the maximal projection S' (if Chomsky is right in claiming that INFL heads this constituent), c-commands the trace of each respective subject (see Chapters I and II). The AGR element within INFL thus governs each trace (assuming AGR). Likewise in (41c), sei 'sell', as the head of the maximal projection VP, also c-commands and governs the trace of di fou 'the bird'. However, as the concept is formulated in Chomsky (1981), only sei in (41c) properly governs the EC trace; INFL in (41a,b) should not be able to properly govern the subject traces in these Ss and they should thereby be ungrammatical. Since these Ss are
grammatical, then there must be a problem with the conceptualization of 'proper government'.

Chomsky (1981: 250, 273) defines proper government as in (42):

42) $a$ properly governs $\beta$ iff $a$ governs $\beta$ and $a \neq \text{AGR}$.

As a possible alternative to the mention of gamma not equalling AGR, Chomsky also considers the stipulation, as do Aoun and Sportiche (1981), that $X^0$ (i.e. a governor) be lexical. In any case, looking briefly at a few of the issues which motivated the concept 'proper government' and the disputed adjoiner to the definition in (42), the difficulty in relation to SA (and the pro-drop languages) becomes apparent.

In their 1977 work, Chomsky and Lasnik proposed the *[that-t] Filter as a formal means of inhibiting embedded subject extraction, a widespread phenomenon in English. Among other results, the filter prohibits wh-extraction of the subjects of subordinate clauses introduced by the COMP that or one of its equivalent forms in other languages. (Notice that the coindexing indices are in parentheses.)

43a) He said [S' that [S the thief stole the money]]

b) *Who(i) did he say [t(i) that [t(i) stole the money]]

That only the subject pertains to the *[that-t] Filter is readily apparent from (44) where the object in (43a) grammatically dislocates to COMP-initial position.

44) What(i) did he say [t(i) that [the thief stole t(i)]]
Taking exception with Kayne (1980a), Pesetsky (1978) and Taraldsen (1978) who aimed at explaining the *[that-t]
Filter in terms of the Nominative Island Condition (NIC), Chomsky (1981) claims that the principles of proper
government and the ECP adequately, and more important, correctly explain that-trace effects. The impossibility of
subject extraction in (43b) and similar Ss is then the result of the non-lexical nature of INFL; the AGR element of
INFL governs a subject NP, but does not properly govern it or its trace because neither AGR nor INFL is [±N, ±V].
However, due to the optional presence in pro-drop languages such as Spanish and Italian of an EC subject within a tensed
clause (pro in Chomsky (1982) and Suñer (1982a)) as in (45b) below, Chomsky first excludes gamma not equalling AGR in
(42) from applying to these languages, but later retracts the exception.

45a) El trabaja rápidamente
    he work(3rd sg, present) rapidly
    'He works rapidly,'

b) a trabaja rápidamente
    'He works rapidly.'

The effect of adding 'a ≠ AGR' is, of course, to claim that the subjects in (45), for example, are not properly
governed. Yet, from other contradictory remarks, Chomsky leaves no doubt that the opposite is true: these subjects
must be properly governed.
Chomsky (1981: 168) states that "where an NP position is governed but not properly governed, neither PRO nor trace can appear." PRO as a pronominal anaphor cannot appear because it is found only in ungoverned positions (Chomsky 1982: 81; Suñer 1982a) and trace as the nonpronominal element left behind upon constituent dislocation, must be properly governed by the ECP. It should be pointed out here that Chomsky's (1981) original decision to remove AGR as a proper governor from pro-drop languages was motivated by his then belief that the subject element in such languages was PRO and not pro. The subject position therefore needed to be ungoverned. In any case, in later remarks (p. 232), he acknowledges that pro-drop languages allow subject extraction in that-type clauses (among others) such as in (46b).

46a) Juan dijo que el policia salio de aqui.
   'Juan said that the policeman left here.'

46b) Quien Juan dijo [S' que t [S t salio de aqui]]
   'Who did Juan say left here?'

The subject trace in (46b) is the result of wh-movement and, because of the ECP and the remarks above, must be properly governed. We thereby conclude that since a subject position is properly governed in one context in Spanish, it follows that not only must all subject positions (including pro)
within [+TNS] clauses be properly governed in that language, but AGR of INFL must also be a proper governor in some sense of the term or proper government could not ensue.

The problem is resolved by claiming that proper government ensues if a governor is lexical (as Chomsky (1981) noted) or if a trace is coindexed with an antecedent. Taking these points into consideration, we formally define the concept as we did in Chapter I, repeated here as (47).

\[
47) a \text{ properly governs } \beta \iff a \text{ governs } \beta
\]

i) \( a = [\pm N, \pm V] \); or

\[ ii) a \text{ is coindexed with } \beta. \]

While the exact wording of the concept 'proper government' is still open to discussion, the above definition is consistent with most present-day renditions (see for example Jaeggli (1982b: Chapter 4) and Koopman (1983: 365)) and is sufficient for our purposes here. In any case, among the results of (47) is that nouns, verbs, adjectives, and prepositions may properly govern a trace in a given language (but see Chomsky (1981: 252f) and Kayne (1979, 1980) for some views on categorial restrictions on proper governors).

In regard to coindexing, the AGR element in Spanish and Italian which overtly appears and minimally reflects the

4. Along these same lines, Robin Belvin (1985) also has interesting views on proper governors which have implications for language theory, SA and creole languages in general. Specifically, he proposes that the unmarked
subject's values for person and number, governs and is coindexed with the subject. It thus properly governs the subject by virtue of government and coindexing. And as is consistent with such a properly governed status, subjects in Spanish (and Italian), as exemplified in (46), may wh-dislocate, even over que 'that'.

In English, on the other hand, there is no overt AGR, no AGR-subject coindexing and no proper government by AGR. Unlike Spanish and Italian, therefore, proper government of a subject trace in English depends solely on coindexing and government with its antecedent in COMP. However such coindexing and subject dislocation to S-initial position as in (48a) (with the indices in parentheses) is possible only if a complementizer such as that does not appear in a string.

setting for proper government is as in (i), with (ii) being a more marked alternative.

(i) Only [+V, -N] can properly govern.

(ii) Both [+V, -N] and [-V, -N] can properly govern.

Radical creoles such as SA, which have been typified as having developed from the most unmarked constructions (see Bickerton (1974, 1981), Givón (1979) and Muysken (1981a), among others), would have a parameter setting like (i) while others, which are more decreolized (see Footnote (12) of Chapter I), may have setting (ii). One of the results of (i) as a setting for SA and similar creoles is that it would not allow preposition stranding since a preposition, which is [-V, -N], could not be a proper governor for a NP trace.
48a) Who(i) did he say [S' t(i) [S t(i) stole the money]]
   b) *Who(i) did he say [S' t(i) that [S t(i) stole the money]]

As explained in Chomsky (1981: 241ff), antecedent proper
government through coindexing crucially depends on local
binding (i.e. control) of a subject trace at the extraction
site. Such local binding, which means that an antecedent
minimally c-commands the subject position (in the sense that
c-command is local), is disrupted if COMP is doubly-filled
with something like that (hence the that-trace effects).
Thus the trace in COMP in (48b) does not locally bind (i.e.
control) the subject position and thereby does not properly
govern it. The string is consequently ungrammatical.

Turning now to SA, we find a somewhat similar
situation as in English in relation to that-trace effects.
Consider first subject extraction in (49b).
49a) Kofi sabi taa di womi de aki
   Kofi know say the man be here
   'Kofi knows that the man is here.'
   b) di womi Kofi sabi taa t de aki
   'It is the man that Kofi knows is here.'

While at first glance (49a,b) might appear to coincide with
subordinate subject movement in Spanish as exemplified in
(46), this view is incorrect because a.) like English, there
is no overt AGR in SA (or any inflectional apparatus
whatsoever) which a subject could coindex with, and b.) as
mentioned previously, taa 'say, that' in (49) is not a complementizer as que 'that' and that are in Spanish and English. Rather, as we will see in Chapter IV, taa in the above context is a verb. It thus permits cyclic subordinate subject dislocation as in (50) since taa does not occupy an S' position and thereby cannot block proper government from COMP.

50) di womi(i) [S kofi sabi [S' t(i) [S e taa [S' t(i) 
    the man Kofi know say 
    [S t(i) de aki ]]]] 
    be here 
    'It is the man who Kofi knows is here.' 

Now consider the quite different subject extraction pattern in (51).

51a) a de fanondu taa di sembe mbei di wosu 
    it be important say the person make the house 
    'It is important that the guy made the house.' 

b) di wosu a de fanondu taa di sembe mbei t 
    the house...
    'It is the house that it is important that the guy build.' 

c) andi a de fanondu taa di sembe mbei t 
    what...
    'What is it important that the guy build?' 

d) *di sembe a de fanondu taa t mbei di wosu 
    the person...
e) *ambe a de fanondu taa t mbei di wosu

who...

As we will conclude in Chapter IV, taa 'say, that' following predicate adjectives has reanalyzed to a complementizer and thereby immediately precedes a factive complement (i.e. one which is presumed to be true) as in (52).

52) a de fanondu [S' taa [S di sembe mbei di wosu]]

'It is important that the guy build the house.'

As should be expected from the above configuration, taa as a complementizer blocks proper government from COMP of a subject trace and (51 d,e) are appropriately ungrammatical. However, di wosu 'the house' and its wh-counterpart, andi 'what', may dislocate because the verb mbei 'make, build', which is [+V,-N], properly governs the NP and because a movement trace can occupy COMP.

After reviewing government and proper government, we are now in a position to finally consider stipulation (b) of Move Alpha. As noted previously, the trace of di fou 'the bird' in (41c) is properly governed by the verb sei 'sell'. And because a wh-form may precede the subjects of perception verb complements as seen in (9) of Chapter II, then a COMP node most likely precedes these complements if Chomsky (1977) is correct in his conclusions concerning wh-movement. Movement of di fou 'the bird' and the coindexing relations (in parentheses) are thus as in (53).
The subjects of the subordinate clauses in (41a,b), for their part, undergo focus and their traces, as extensively discussed, are also properly governed by their antecedents in COMP. For the same reasoning as with (53), movement is again COMP-to-COMP with coindexing relations (again in parentheses) as in (54).

53) [S' di fou(i) [S Molion jei [S' t(i) [S di womi bi-
    the bird       Molion hear       the man TNS-
    sei    t(i) ]]]]

'sell

'It was the bird that Molion heard the man selling.'

In both (53) and (54), because the gaps (i.e. traces) are properly governed, they satisfy stipulation (b) of (3).

3.3.1 Categorial Status of Trace

Before continuing with stipulation (c), the categorial status of the traces at the extraction sites in (53) and (54) and in SA in general should be determined. As stated in (3), the gap (trace) has a relation to its antecedent. In the above examples, we note first that there is a coindexing relation to its antecedents di fou 'the
bird' and di mujee 'the woman' and the various traces which track their movement. However, only the rightmost trace is in a properly governed position (i.e. a GF-θ-position), with the antecedent and intermediary traces being in non-θ-, non-A-positions, or COMP. The intermediary traces and the antecedent thereby represent successive cyclic movement (i.e. COMP-to-COMP), identical in this respect to wh-movement in English.

55) [S' What [S did the man want [S' t [S e to build t]]]]

The wh-form what in (55) is base-generated in the rightmost position in the string at D-structure, but with question formation, it moves cyclically COMP-to-COMP until it reaches its final landing site which, in this instance, is the leftmost S' node. All movement in SA is of the English wh-variety as exemplified in (55).

Chomsky (1982: 78) distinguishes between two kinds of traces: NP-trace which has the features [+anaphor, -pronominal] and wh-trace (as in (55)) which has the features [-anaphor, -pronominal]. Both of these have overt counterparts: NP-trace coincides with overt anaphors and wh-trace is the EC counterpart to Referential (R)-expressions. It is wh-trace as it exists in English that we are concerned with at the present moment.

Among the characteristics of the latter typology is that they adhere to Principle C of Binding Theory. This states (Chomsky 1982: 20) that "an R-expression is free."
By this is meant that wh-trace has no antecedent in an A-position within the larger S category (it is not A-bound anywhere within a complex S). However, there is no restriction on wh-trace from being bound from A'-positions and this is exactly what happens in (53) and (54). In each example, a coindexed trace in COMP locally A'-binds the trace at the extraction site. The NP-trace in the gaps caused by Move Alpha in these Ss thereby adheres to Principle C of Binding Theory and are therefore variables in current GB terminology.

Wh-movement in SA also constitutes an operator-variable relationship. As seen in (9) and (10) of Chapter II and discussed in 3.1 and subsequent sections, movement of wh-forms, as with NPs, is COMP-to-COMP and, again, the antecedent is not in an A-position, but an A'-position and is thereby an operator. The only difference (according to Chomsky (1982: 83)) between NP-variables and wh-variables is that the former takes as its semantic "value the element of D denoted by its NP-antecedent" while the latter ranges "over a subset of D (i.e. denotative sense - my insertion) determined by the inherent properties of the restriction on its operator." That is, concerning wh-movement in SA, the only type that there is, the meaning of a trace will range over the specific or variable possibilities of its wh, pronominal, or R-expression antecedent in an A'-position.
Now that we have determined that trace is a variable in *wh*- and NP-movement, we should next discuss how this designation applies to the other θ-marked maximal projections. In (7) which defines Move Alpha for SA, it was determined that not only subjects and objects of a S (and their corresponding *wh*-forms) can move, but also prepositional phrases. We'll first consider prepositional phrases and then have an in depth look at what could be the quite different process of verb copy.

3.3.2 PP Trace

Although there are some category-specific problems associated with PP focus, the trace of PP, like that for NP, is also properly governed upon dislocation. Note first PP extraction in (56).

56a) a [VP [V go] [PP a di wosu]]
   he go to the house
   'He went to the house.'

b) a di wosu a go t
   'It was to the house that he went.'

c) *di wosu a go a t
   the house he go to

d) naase a go t
   a+unse
   to-where...
   'Where did he go?'
e) *unse a go a t

where he go to

From (56c,e) above and as observed in section 2.3.2.3, prepositions never strand in SA, a point which we will soon return to. In addition, while go 'go' in (56a), as a V within a VP, cannot Case-mark di wosu 'the house' or its wh counterpart, unse 'where', because of the intervention of the maximal projection PP, it does govern the PP position and, given the comments in 3.3, thereby properly governs PP trace as in (56b,d). Since these assumptions may not be totally clear, it might be helpful to review the pertinent sections of GB theory.

Chomsky (1981: 51) notes that "generally ['subcategory', 'θ-mark', 'govern', and 'Case-assign'] coincide, but not always." One such instance when they do not coincide is when a verb subcategorizes (either strictly or optionally) and θ-marks an argument, but cannot assign Case to a NP within the argument structure because of the intervention of a maximal projection such as PP or S'.

Under these conditions, the subcategorization and θ-marking of the complement(s) of a verb are apparently sufficient prerequisites for government to ensue and for the position (including its trace) to be properly governed (see Huang (1982) and Torrego (1984: 119, Footnote 31) for similar conclusions). To clarify these relationships, Chomsky (1981: 50) observes that in John thought that he left his
book on the table, "the matrix verb think governs its complement $S'$, but not any element (e.g. he) inside $S'$. The embedded verb governs its complements his book and on the table, but does not govern any element (e.g. his or the table) within these categories. Thus, his book and book receive Objective Case (the latter, by percolation)."

Among the implications of these comments are that NPs are Case-marked by a governor within whichever maximal projection they can find one so as to not violate the Case Filter. That is, they will first look, so to speak, within the immediately dominant maximal projection which contains a governor. If no governor is available, then they will look to the next higher constituent level. Thus, under normal conditions, this would be a preposition if a NP were within a PP, a verb within a VP if there were no other intervening governor, and the INFL complex with a [+TNS] value if a NP is a subject. With a [-TNS] designation, however, the subject of a S may be forced to look outside of the aforementioned maximal projection for its governor (with an appropriate (and necessary) $S'$ deletion), an instance of Exceptional Case Marking (see (33) of Chapter II and the accompanying discussion). Taken from a different viewpoint, a verb may govern a complement but will not necessarily Case-mark a given noun within a complement structure because of the intervention of an additional governor such as a preposition. From this and given Chomsky's comments above
and the previous discussions in this chapter, the verb go 'go' in (56), as V within the maximal projection VP, c-commands, governs, and thereby properly governs both the complement PP a di wasu 'at the house' in (56a) and its trace in (56b,d).

The final problem still unresolved is why prepositions do not strand in SA, or, to put it another way, why they must always accompany their complement NPs. Van Riemsdijk (1978) in a review of a cross-section of the world's languages, found stranding to be uncommon and thereby the marked option. From this viewpoint, then, SA once again represents the unmarked condition. Nevertheless, there are at least three possible syntactic approaches to the question which we will review here.

The first relates to Case Theory. Chomsky (1980a) makes a distinction between 'inherent Case' which is a type of innate Case assigned to a particular θ-role, and 'structural Case' which "is a structural property of a formal configuration" (Chomsky 1981: 171). According to Kayne (1979b), the former, or 'inherent Case', is a characteristic of prepositions and assigns Oblique Case at D-structure; the latter, as implied in Kayne, only pertains to verbs in the unmarked option and assigns Objective Case at S-structure. Now if prepositions lose the ability to structurally Case-assign (i.e. lose Oblique Case), leaving them only with 'inherent Case' (i.e. Objective), then
stranding should be acceptable as is the case in English since the trace of the dislocated NP, assuming that variable trace requires Case, will receive 'inherent Case' at S-structure from the preposition. However, with both Case-types remaining intact in a language, then stranding will not be possible since Case is, supposedly, carried along with wh-type movement and the preposition will not have the ability to inherently Case-mark, thus leaving a variable without Case.

This quite complex rendition of stranding can be rejected immediately. For one, Kayne bases the phenomenon on there being a distinction between Oblique and Objective Case, assigned by 'inherent' and 'structural Case' respectively. If there is a distinction, then stranding will not be possible, but if there is not, then stranding is permissible as in English. However, in SA as in English, there is no Oblique/Objective difference, yet stranding is ungrammatical. Since prepositions cannot strand in SA, then Kayne's approach not only does not apply to that language, but is of doubtful validity because it does not.

The second approach has a PP as a bounding node. Baltin (1978: Chapter 3) concludes that such is probably true for English. The details are unimportant, but with the same true for SA, then a NP within a PP (or a clause introduced by a preposition) could not prepose to S-initial position (i.e. S') without a crossing a S and PP node, a
possible violation of Subjacency. This concept, Subjacency, will be handled in a more comprehensive manner in the next major section, but for the present, it is sufficient to simply say that certain nodes, when configurationally juxtaposed, inhibit constituent movement. Thus if PPs are also bounding nodes in SA, as is true of S nodes (to be discussed), then [NP, PP] movement, the catalyst for the stranding effect, is blocked as, for example, in (56) because it is "bounded" by both S and PP. Only the whole PP may dislocate since it would then just cross S.

This second explanation is certainly more elegant from the viewpoint of simplicity. Indeed, we will consider possible confirmatory evidence of a somewhat different sort in Chapter IV which serve to make these assumptions plausible. However, we do not have to appeal to Subjacency (i.e. bounding nodes) to explain stranding, but can do so through other, independently justified principles.

The third approach deals with language-particular properties of Move Alpha. As discussed in 3.1 and formalized in (7), Move Alpha in SA only applies to $\theta$-marked maximal projections within a S. Thus, since an entire PP is [PP, VP], or a $\theta$-marked argument of V within VP, then preposition stranding would be a violation of conditions on accessibility to Move Alpha. As phrased in 3.1, dislocation of just a NP complement of a preposition would be to move a
constituent below the level of a θ-marked maximal projection.

From the standpoint of the previous approaches to preposition stranding, this last explanation is quite different. While Subjacency, for example, is widely accepted, conditions on accessibility to Move Alpha originated, as far as is known, with this text. Nevertheless, with this last approach there is no need to invoke new principles and we thereby attain greater generality at no cost to the explanatory power of the grammar.

Whatever the final resolution of the stranding question in relation to other languages, we have concluded in this section that on one level, when a verb subcategorizes for, θ-marks and governs a PP position, it also properly governs that position and its trace. On another level, the traces of a PP must be properly governed since without such status, PP focus would not be grammatical and a violation of the ECP would ensue. Thus just as local binding constitutes proper government for NP subjects from this viewpoint, so too must a verb for PPs since Move Alpha could not apply otherwise. 5

5. See Footnote (4) above.
3.3.3 Verb Copy

As was assumed in Chapter II, a copy of SA verbs and predicate adjectives (which we concluded are actually stative verbs) may appear in COMP positions such as in (57) and (58) below.

57a) a daama en
    he look-for him
    'He looked for him.'

b) daama a daama en
    'He LOOKed FOR him.'

58a) a ta-lau
    he ASP-crazy
    'He is becoming crazy.'

b) lau a ta-lau
    'He is becoming CRAZY!'

It was presupposed in that chapter that only if it is an actual verb itself in Ss such as (57) and (58) which remains in the clause and not a copy can θ-marking, government and Case-assignment be maintained. The question which now arises in this section is how we know that it is the copied element which is in COMP and not the verb. The question is especially pertinent since Koopman (1984) and Torrego (1981, 1984) have claims which are different from those proposed here. It would be wise, then, to review and evaluate their ideas. We'll begin with Koopman.
Koopman argues that like other constituents, verbs are also subject to Move Alpha (but of the Chomskyan (1981) one-step type rather than the Van Riemsijk and Williams (1981) two-step variety - i.e. copy and deletion of the item in the base position) and undergo both wh- and NP-type dislocation. For example, she claims that when the INFL position is lexically unfilled as in (59) in Vata, a verb-final West African language (see section 2.3.2.1 of Chapter II), the verb must move to INFL in order to Case-mark the subject; alternatively, if there is an auxiliary element in INFL as in (60), this is sufficient for Nominative Case-marking of the subject and the verb remains in its clause-final base-structure position.

59) a10 o yE m0 ye 1a6 (Koopman 1984: Chapter 5)
who he saw you PART WH
'Who saw you.'

60) a10 o ni ka m0 ye yE 1a (Koopman 1984: Chapter 5)
who he FUT TP you PART see WH
'Who will see you.'

In effect, then, movement of the verb is forced by the Case Filter.

6. While it is true that the subjects in (59) and (60) have undergone wh-movement, based on Koopman's discussion, this has no relevance for verb movement. If INFL is lexically unfilled, Koopman claims that the verb must move to that position whether there is subject wh-movement or not.
Turning to *wh*-type verb movement, Koopman claims that just as there is NP-type verb movement symmetrical with actual NP movement, so too is there V-displacement which is like *wh*-movement of NPs. In this second type of supposed extraction, Vata is identical to SA in that phonologically-identical verb forms (including predicate adjectives) are both in COMP and in the clause itself. Unlike what is supposed in this text, however, Koopman holds that a resumptive verb is in the extraction site and the verb itself is in COMP. Note (61) from Koopman's Chapter 6.

61a) pa wa pa wi na ...
   'They ANNOUNCED that ...'
61b) za1E E za1E duuu
   red it red 'like blood'
   'It is very RED.'

In evaluating Koopman's reasoning for claiming verb movement, we immediately encounter serious difficulties. For one, she bases the crux of her argumentation on a series of assumptions which includes no supporting evidence and which cannot be taken as *a priori* in and of themselves. If any one of the premises is incorrect, her whole argument of verb movement collapses.

She assumes first that verbs have V' positions which are appropriate verb landing sites just as noun phrases have θ' positions for movement. These V' positions include COMP
and INFL. She then assumes that θ-relations are maintained through a chain from the verb in V' position to the verb trace (or the resumptive verb in the case of wh-type verb movement as in (61)). Under this format, the internal arguments are θ-marked by V-trace or a resumptive verb since the verb itself cannot do so because it has moved. From this, she concludes that verbal trace must be present. Such a conclusion, however, begs the question since it is based entirely on the verb having moved, which is what she is trying to prove in the first place. All that can be said of θ-relations based on her data is that such are somehow maintained, the exact mechanism of which is still unclear.

Koopman next assumes that the verbal trace (or again the resumptive verb left by wh-type extraction) assigns Case to any internal arguments. Finally she assumes that verbs must undergo movement through the application of Move Alpha even though it is supposed that the rule applies to maximal projections. She explains the contradiction by once again noting that the verb must move to act as a Case-assigner for the subject NP or there would be a violation of the Case Filter.

What the above assumptions imply is that V-trace has all the properties of a regular verb. That is, the V-trace inherits the ability to θ-mark, assign Case to internal arguments and to govern since this is the prerequisite to being a Case marker. Another implication, but in relation
to Koopman's NP-type verb movement, is that one and the same
verb undertakes the job of two governors and Case markers.
That is, a trace or a resumptive verb in the sense here
indicate the base position of a verb and as such, are
representatives of any given verb. Under this view, then,
one verb would not only govern and Case-mark its own
internal arguments, but also the external argument normally
within the domain of a quite different constituent, INFL.

Still another difficulty for Koopman is her
rendition of proper government. Specifically, the pertinent
question is whether a verb trace can properly govern object
preposing in Spanish (more on this in a moment) concludes
that it cannot while Koopman has the opposite view.

62) kofi(i) mO(i) a ni [S' zE(j) mEmE(j) n nyE- BO(k)
Kofi him we NEG-A what you gave-REL
[e(i)] [e(j)] [e(k)]] yi

know

'lt is to Kofi that we don't know what you have given.'
The EC left by the dislocated nye-BO 'gave' has been added
to (62) for convenience, as well as the S' labeling.
Nevertheless, nye-BO 'gave' cannot properly govern [e(i)] or
[e(j)] since the verb is not in VP, nor can they be properly
governed by [e(k)] despite what Koopman claims since a trace
is not lexical (see section 3.3). Thus, if her analysis of
verb movement is correct, (62) above should be ungrammatical. Since it is acceptable, the evidence for NP-type verb movement is not compelling and Koopman should necessarily invoke other principles to account for the data.

Torrego's account of NP-type movement in Spanish also has its problems. According to Koopman (1984: Chapter 6) (whose observations cannot be improved upon here), the process is triggered by a particular \textit{wh}-type and the verb does not move alone as is true in other cases of supposed verb movement; rather, a past participle, negative marker and clitics additionally move. From this description, Koopman concludes that what Torrego considers verb movement in Spanish is actually stylistic inversion which corresponds to the same process in French (see Kayne and Pollock (1978)). Since we agree with the conclusion, nothing more need be said here concerning Spanish.

Turning to \textit{wh}-type verb movement, since Koopman bases her justification for this process on reasons of symmetry with NP dislocation processes (i.e. NP- and \textit{wh}-movement), if her arguments for NP-type verb movement are unconvincing, then it is at least doubtful that there is any symmetry to maintain with \textit{wh}-type movement of verbs. There is not even the added impetus of anything like Case-marking to motivate the process as Koopman claims there is for verb NP-type movement in Vata. Consider again (57b) from \textit{SA} and (61a) from Vata, repeated here as (63) and (64).
63) daama a daama en
   look-for he look-for him
   'He LOOKED FOR him.'
64) pa wa pa wI na...
   throw they throw voice NA ...
   'They announced that...'

Unlike NP-verb extraction to INFL in Vata which Koopman claims is motivated by the need to Case-mark subjects, there are no arguments in S' for a verb to govern or Case-mark.

She notes in Chapter 6 that the complements of a verb can never accompany it in COMP position.

65) (*ma) li n ka ma li
   (*it) eat I FUT-A it eat
The same is true of SA.

66) *daama en a daama
   look-for him he look-for

Thus, there is no necessity to propose verb movement in these cases to maintain grammatical relations or to Case-mark.

Along these same lines, Robin Belvin (p.c.) observes that if the verb were in COMP in Ss such as (63) and (64), there is in principle no reason why it should not Case-mark the subject arguments. There is only a S node separating the two and given the configuration and reasoning behind Exceptional Case Marking, something like (67) from SA where
the subject argument is Objectively Case-marked might be expected.

67) *daama en daama en

look-for him look-for him

That (67) is ungrammatical lends support to our contention that a verb has not moved to COMP. Note that the unacceptability of a verb in COMP in (67) also falls out from independently motivated principles. If such is what transpires, then the subject would be Case-marked by two separate elements; it would be Objectively Case-marked by the dislocated verb and at the same time, the AGR element of INFL would Nominatively Case-mark it. Such a contradiction in marking would of course be alleviated if the verb itself remained in its base-position and a copy, devoid of the features normally associated with verbs, appeared in COMP. In this way, the verb and not the copy also maintains all grammatical processes and relations and the question of verb movement and its associated problems never arises.

It likewise seems better to claim that such a verb copy is base-generated in place rather than moved. Jaeggli (1982b: 15-16), Lasnik and Kupin (1977) and Kayne (1974: 89) state that copying rules should be excluded from a theory of grammar for quite compelling reasons. Among these are that such a transformational mechanism would be too powerful and allow the description of impossible structures. Second, movement of a copy would be the opposite of that allowed in
trace theory with the empty element preposed and the R-expression remaining at the extraction site. Such a process would thereby be unprecedented and should be prohibited. However, it is not opposite to the copy and deletion theory of Move Alpha proposed by Van Riemsdijk and Williams (1981). At any rate, there are additional arguments that we will see shortly which favor the alternative analysis of a verb copy in COMP rather than either version of Move Alpha (i.e. that of Chomsky or Van Riemsdijk and Williams).

Now it is uncontroversial that there is some kind of verbal element in COMP in SA and Vata which produces an emphatic reading for the verb. The literature shows that it is widely claimed that COMP is a place-holder of either INFL or just simply tense (see for example den Besten (1977, 1978), Muysken (1984), Rizzi (1982), and Stowell (1981)). While COMP in SA does not hold tense or any part of INFL (refer to sections 2.2 and 2.3.2.2), still it allows a verbal element which produces an emphatic reading. Note also that a verb copy in COMP is consistent with a general SA grammatical strategy that verbs signal grammatical relations (to be discussed in detail in later chapters). This is necessary because SA and similar languages are particularly devoid of grammatical morphology. Thus these languages do not have any kind of special apparatus to signal emphasis on a verb and are forced to find an alternative means. A strategy consistent with other
structures in these languages would be to base-generate a verb copy in COMP to add emphasis. And because of the identical phonological shape of a verb copy and the verb itself, the two are interpreted as the same item and are coindexed such as in (68) (with the indices in parentheses).

\[ (68) \quad [S' V(i) \ldots [S \ldots V(i) \ldots]] \]

We interpret (68) as allowing any verb at any structural depth to coindex with its base-generated copy in whatever higher COMP. Note that under this formulation, there is no binding chain as there is with NP dislocation since movement has not taken place.

The above account has interesting results for the developing restriction on verb copy in many of the languages which allow the process. Like SA, Jansen et al. (1978), Muysken (1978), Koopman (1984), and Kaufman (1976) and Williams (1971, 1976) note for Sranan, Papiamentu, Vata and Krio, respectively, that some verbs in subordinate environments do not successfully coindex with a copy in S-initial position. Koopman observes that this is an additional complication for a movement account of the process since we would necessarily have to specify quite disparate contexts for the application of Move Alpha with verbs. On these grounds alone, a different analysis would be more appropriate.

Based on the verb copy approach, the variation exhibited in these languages is understandable. Aoun (1981)
claims that under certain conditions, S' breaks a wh-chain (details of which can be found in the reference). If we extend this view to the assumption that S' may develop into an opaque domain for binding from a A'-,θ'-position if there is no movement chain (for reasons yet to be determined), then we would expect that binding of a verb copy with a verb over a S' node could develop a locality condition whereby such binding would only be permissible from the immediately dominant COMP node. Moreover, based on Bickerton's (1971, 1973, 1975) work on syntactic variation within languages which found that syntactic change takes place category by category and environment by environment, the fact that the locality condition is gradually entering these languages rather than appearing all at once makes such variation explicable.

Continuing with variation, it should be noted that the direction of change is from free binding of a verb copy with a verb at whatever configurational depth to increasingly more restrictive domains. That is, the most conservative SA speaker of the four major informants generally allows such binding in almost all cases, while the least conservative almost always permits only binding from the immediately dominating COMP node. The two remaining Saramaka have judgments between these two extremes. Based on this correlation, the obvious conclusion is that all such binding for all speakers was without restriction at some
point in the history of SA and languages with a similar pattern. The question which still remains unanswered, however, is why S' is not a barrier for verb copy binding in earlier versions of SA and other languages but develops as such later. The answer will have to remain mysterious for the present.

From the perspective of Move Alpha, if we adopt Koopman's approach, then there is no consistent means of explaining the developing restriction. A verb, which like other constituents should leave trace in all COMP positions upon cyclic dislocation, is nevertheless found to be ungrammatical in certain contexts. If Move Alpha applies equally to all constituents (which it should), then there is no explaining how a NP for example in a subordinate clause may prepose to S-initial position, but a verb in the same clause cannot. If both involved cyclic movement, both should be equally grammatical. Whether a verb copy, an actual verb, or trace is in COMP makes no difference because in whichever case, it is cyclic and subject to Subjacency. In a related issue, if Move Alpha is two-step following Van Riemsdijk and Williams (1981), what happens in multiple cyclic movement? Are there copies in all COMPs and then deletion? Whatever the process, we are still faced with the variable acceptability of verbs or verb copies in environments which allow other constituents to cyclically prepose. However, if we adopt the proposal here that a
verb copy is base-generated (and nothing falls out from this
analysis in the grammar of SA presented in this text - it is
motivated solely by the observations in this section), then
the unacceptability of copying certain verbs (in those
languages which have variably grammatical results) falls out
from binding theory. \( S' \) is a potentially opaque domain for
binding from \( A'-,\theta'- \) - positions if there is no movement chain.
Thus, as observed with the correlation between the least and
most conservative Saramaka and verb copy, the binding of a
verb copy over \( S' \) is gradually being eliminated from these
languages.

Concerning the binding relations themselves of a
verb and verb copy, they are most likely determined through
semantic interpretation rules. The alternative is to state
a filter which, given the variable nature of the process in
SA (and in the other languages which have variable outputs),
would be unsatisfactory. Filters are categorical and cannot
tolerate variation of any type, whether individual or group.
Since such variation exists in SA with what are best looked
at as verb copies, a filter would entail stating all the
variable environments, a quite complex task and one which
runs counter to the reason for filters.
3.4 Subjacency

The third and final stipulation of Move Alpha is that the relation between the gaps (i.e. variable trace) and the antecedent (i.e. operator) is subject to Bounding Theory. The basic premise of the theory, according to Chomsky (1973, 1977), is that the structural juxtaposition of any two of the same or different particular categories in a language (known as bounding nodes and usually including at least S and NP) will block either leftward or rightward movement. Consequently, if a SA structure has a configuration like that in (69a), with Y and Z representing bounding nodes, then the leftward dislocation of X will not be permitted because of Subjacency.

\[ \text{69a)} \quad \text{COMP } Y \quad \neg \neg \quad \text{COMP } Z \quad [X_{\max}(\theta)] \]

However, if there is a lexically unfilled node (e.g. a COMP) intervening between the two bounding nodes as in (69b), then the preposing of an element in SA (or theoretically any other language) to a higher COMP node will be possible since the lower COMP will act as a kind of 'escape hatch' or 'bridge' over the syntactic obstruction.
(69) and the accompanying explanation of course refers to cyclic leftward movement in SA, the only type in the language. The questions as they relate to SA concerning Subjacency thus are:

i) Is the relation between the antecedent (i.e. an operator) and a gap (i.e. variable trace) subject to Subjacency in SA?

ii) Is verb copy subject to Subjacency?

iii) If they are subject to Subjacency, what are the bounding nodes?

The questions are interrelated and so will be combined in the following discussion.

3.4.1 Bounding Nodes

Again returning to the complements of perception verbs in (8), (9) and (10) of Chapter II, it was shown for that data that NPs and PPs (and their wh-forms) are easily dislocated from subordinate positions to S-initial position. Since we concluded in section 3.2 that COMP-to-COMP cyclic movement is the only type in SA, then (8a) (and (b)) of Chapter II has a configuration as in (2), repeated here as (70).

70) [S' [S Kofi si [S' [S di mujee bi-ta-wooko a di keiki]]]]

'Kofi saw the woman working at the church.'
In the above configuration, no subordinate constituent has been dislocated. However, if something were moved as in (6) or (7), then movement would be as in (69b) with possible landing sites being either S' (i.e. COMP) position, for wh-forms at least. Now note the attempt in (71) and (72) at subordinate dislocation with a wh-form (i.e. a moved element) already in place in the lower COMP node.

71a) Kofi si [S' ambe [S t bi-ta-wooko a di keiki]]
   Kofi see who TNS-ASP-work at the church
   'Kofi saw who was working at the church.'

   b) *a di keiki(j) Kofi si [S' ambe(i) t(j) [S t(i) bi-at the church...
       ta-wooko t(j)]]

   c) *naase(j) Kofi si [S' ambe(i) t(j) [S t(i) bi-ta-wooko
       at-where...
       t(j)]]

72a) Kofi si [S' naase [S di mujee bi-ta-wooko t]]
   ...at-where...
   'Kofi saw where the woman was working.'

   b) *di mujee(j) Kofi si [S' naase(i) t(j) [S t(j) bi-ta-the woman...
       wooko t(i) ]]

   c) *ambe(j) Kofi si [S' naase(i) t(j) [S t(j) bi-ta-wooko
       who...
       t(i)]]
From the above data, a wh-form fills a subordinate COMP position in (71-72a) respectively and subsequently (i.e. (71-72b,c) allows no other constituents to use the position as a "bridge" to further movement. In effect, the displacement of a constituent to a subordinate COMP node creates the equivalent of a wh-island in English and prohibits further movement precisely because the node is already occupied. We may conclude, then, that SA allows only one moved constituent at any given time to occupy a COMP. Moreover, looking at the data from the point of view of Subjacency, it appears that constituents in SA need a COMP "bridge" for movement. Without one, dislocation from a subordinate clause would be ungrammatical since a constituent would be forced to cross two S boundaries, an untenable situation if S is a bounding node. S must therefore be a bounding node in SA since if it were not, movement would be possible in (71-72b,c) above because there would be no Subjacency violations and a COMP "bridge" would not be necessary.

In the case of verb copy, these too are subject to Subjacency effects although movement does not take place. As with the relation between an operator and a gap (i.e. trace) in the dislocation of NPs and PPs over an occupied COMP node in (71) and (72), the relation between a verb in the clause proper and the copy is ungrammatical under the same conditions. However, this is because a filled COMP
creates a totally opaque domain for binding of a verb with its copy without exception. A verb copy separated by two bounding nodes without an unfilled COMP intervening as in (73a,b) is thereby unacceptable to all in SA.

73a) *wooko(i) Kofi si [S' ambe(j) [S t(j) bi-ta-
work Kofi see who TNS-ASP-
wooko(i) a di keiki ]]
work at the church

b) *wooko(i) Kofi si [S' naase(j) [S di mujee bi-ta-
work... ...at-where...
wooko(i) t(j) ]]

So, even though verbs in the language do not prepose as do NPs and PPs, such a relationship is still subject to Subjacency-like effects and could be misinterpreted as resulting from movement.

Like S, NP also appears to be a bounding node in SA. Consider (74) and (75).

74a) a fefi di womi wosu
he paint the man house
'He painted the man's house.'

b) *womi a fefi di wosu
c) *di womi a fefi wosu
d) *di wosu a fefi womi
e) *wosu a fefi di womi
f) di womi wosu a fefi t
the man house he paint
'It was the man's house that he painted.'

75a) a fefi di wosu fu di womi
he paint the house for the man
'He painted the man's house.'
b) *fu di womi a fefi di wosu
c) *di wosu a fefi fu di womi
d) di wosu fu di womi a fefi t
the house for the man he paint
'It was the man's house that he painted.'

Possession in SA can be expressed either with a 'possessor-possessed' relationship as in (74), or with a 'possessed-possessor' juxtaposition as in (75). If di womi 'the man' and wosu 'house' were not both within a NP, then they would both independently focus as the object NP wan bubu 'a wildcat' and the following Instrumental PP ku di matsau 'with the ax' can in (76).

76a) a koti wan bubu ku di matsau
he cut a wild-cat with the ax
'He cut a wildcat with the ax.'
b) ku di matsau a koti wan bubu t
'It was with the ax that he cut a wildcat.'
c) ku andi a koti wan bubu t
with what...
'With what did he cut a wildcat?'
d) wan bubu a koti t ku di matsau
'It was a wildcat that he cut with the ax.'

e) andi a koti t ku di matsau
'What did he cut with the ax?'

(74) and (75) should thereby have a structure like (77a,b) and (76) like (78).

77a) [S a fefi [NP di womi wosu]]
'He painted the man's house.'

b) [S a fefi [NP di wosu fu di womi]]
'He painted the man's house.'

78) [S a koti [NP wan bubu] [PP ku di matsau]]
'He cut a wildcat with the ax.'

With the configurations in (77a,b), neither di womi 'the man' nor wosu 'house' in (77a) or di wosu 'the house' or fu di womi 'for the man' in (77b) can separately focus because in either case, they would have to cross both a NP and S node to reach COMP. However, when both constituents together are moved as in (74f) and (75d), or when either wan bubu 'a wildcat' or ku di matsau 'with the ax' dislocate as in (76) (thus in effect dislocating the superordinate NP node in (77) and independent arguments of koti 'cut' in (79)), the result is grammatical.

If NP is a bounding node as is S, the ill-formedness of (74b-e) and (75b,c) are explicable; the constituents would have to cross two bounding nodes, NP and S, to reach COMP. Alternatively, the movement of the entire NP node in
(77) or either complement of koti 'cut' in (78) is also explicable since in each case, dislocation only involves crossing one bounding node, S, and Subjacency is not violated. Without more ado, we will conclude that NP is also a bounding node in SA.

As another possibility, however, we must keep in mind that the same effects are achieved, as they were with the earlier discussion on preposition stranding (if PP is a bounding node), if we appeal to Move Alpha in SA and the permissible elements that can dislocate. That is, those instances of ungrammatical focus in (74) and (75) can also be explained by noting that the extracted elements are not aximal theta-marked projections of S and the results are therefore not acceptable. Be that as it may, Subjacency will be an invaluable diagnostic in later chapters and as such, the determination of NP and S (and possibly PP) as bounding nodes is an important and integral part of this analysis.

3.5 Summary

Throughout the preceding section beginning with 3.1, we have concentrated on Move Alpha as defined by Chomsky (1982: 33) and how it applies to SA. Beginning with the first part of that definition, we showed that the only permissible landing sites are Θ'-positions which are at the same time A'-positions, or COMP nodes in other words. With
this true, all movement in SA is only to S' positions which means that it is of the English wh-variety rather than the NP-type. And when there is movement, NPs and PPs leave trace which in each instance is properly governed. Moreover, because subject NPs also dislocate in SA whenever COMP is unfilled (but remembering that there is at least one environment which exhibits that-trace effects), we demonstrated that local binding from COMP, in the sense of Chomsky (1981), constitutes proper government. In addition, from a Subjacency perspective, we concluded that dislocation can likewise be blocked if a constituent crosses two bounding nodes. These nodes are minimally S and NP.

Verb copy offered a different sort of difficulty than other categories discussed: unlike NPs and PPs, it was shown that there are serious difficulties with the view that verbs themselves prepose. Rather, we showed that the process is better viewed with exact phonological copies base-generated in S' positions. The verb itself remains in a clause proper. We reached this conclusion for independently-motivated reasons. With these conclusions in mind, then, we can begin an analysis of the COMP position and some of the formatives which appear to fill it at D-structure.
CHAPTER IV

COMPLEMENTIZER-LIKE FORMS

The primary objective of this chapter, as the title implies, is an analysis of those formatives in SA which appear to occupy COMP nodes and which may thereby be mistaken for complementizers. Some of these such as fu 'for' and taa 'say, that' are actually verbs\(^1\) (i.e. serials) and because of other characteristics associated with them and the principles of the GB model of grammar, they will be shown to in fact constitute finite Ss unto themselves. Included among other formatives which also appear to be complementizers are biga 'because' and di 'because, since' which, unlike fu and taa, are most probably either subordinating conjunctions or prepositions. Finally, among those items which actually fill COMP positions are the various categories which may undergo wh-type movement and which include ka 'where; to, at, etc.-the-place-where' and di 'when'. The discussion will begin with ka and di 'when'.

---

1. See Footnote (16) of Chapter I.
4.1 ka 'where' and di 'when'

As noted in Chapter II, ka 'where, etc. and di 'when' are not homophonous with their corresponding wh-forms as they are in English. When a Saramaka wants the import of a direct or indirect question or a headless relative, the wh-forms naase 'at, etc.-where'/unse 'where' or naunten 'at-which-time, when' are used and a gap (i.e. trace (t)) is left at the extraction site.

la) a hakisi naase dee womi go t
   he ask to-where the(pl) man go
   'He asked where the men went.'

b) a hakisi naunten dee womi disa dee
   he ask at-which-time the(pl) man leave the(pl)
   famii fu de t
   family for them
   'He asked when the men left their families.'

On the other hand, ka 'where, etc.' and di 'when', as one speaker mentioned, do not introduce questions of any sort, but as in (2a,b) below, respectively refer to a specific place or time.

2a) a konda da di sikoutu ka dee
   he tell give the policeman (the-place)-where the(pl)
   sodati hondi di hogima
   soldier hunt the evil-man
   'He told the policeman where the soldiers hunted the bad guy.'
b) a konda da di sikoutu di dee sodati hondi di hogima

'He told the policeman when the soldiers hunted the bad guy.'

c) *a konda da di sikoutu Ø dee sodati hondi di hogima

Because of especially (2c) above, it appears possible that ka 'where, etc.' and di 'when' could be base-generated in COMP position at D-structure. Bresnan (1970: 315) observed that as a characteristic of complementation (albeit of English), different types of verbs select only certain complementizers to introduce subordinate Ss. (2c) perhaps renders this diagnostic applicable here since konda 'tell' will not accept a Ø marker but will accept ka and di as in (2a,b), an indication that such selection is at least not random. However, to conclude that ka and di are complementizers is premature since some verbs commonly do not allow subordinate COMP nodes to be left unfilled at S-structure but are only grammatical with wh-forms filling these positions.

3a) He wondered when they would arrive.
   b) *He wondered Ø they would arrive.

4a) She asked where they went.
   b) *She asked Ø they went.

Since when and where in the subordinate COMP positions in (3-4a) are due to wh-movement and result in similar surface structures as (2), then to claim that di and
ka are base-generated is not yet viable. Also possible is that ka 'where, etc.' and di 'when' in (2) and similar Ss are a result of Move Alpha. That is, it's plausible that the base structure for (2a,b) is as in (5).

5) 

\[
S' \\
\text{COMP} \\
S \\
\text{NP} \quad \text{VP} \\
V \quad \text{NP} \\
dee sodati hondi di hogima [ka/di]
\]

'... the soldiers hunted the bad guy [WH-place/WH-time].'

As a consequence of (5), like naase 'at, etc.-where' and naunten 'when' in (1), (2) could have resulted from wh-movement and thus would have left trace (t) as in (6).

6) 

\[
S' \\
\text{COMP} \\
S \\
\text{NP} \quad \text{VP} \\
V \quad \text{NP} \\
ka/di dee sodati hondi di hogima [ka/di]
\]

'... where/when the soldiers hunted the bad guy.'

Which analysis is correct remains to be seen. Before making a judgment though, we will first review the general and item-specific properties of di and ka. We should then be able to
arrive at their D-structure configuration as well their
categorial status.

Included among their general characteristics, we
find that ka 'where' and di 'when'-clauses can seemingly
extrapose at will; all such clauses in the data-set may
prepose to S-initial position as exemplified in (7).

7a) ka dee sodati hondi di hogima a konda da di sikoutu
   'It was where the soldiers hunted the bad guy that he
   related to the policeman.'

b) di dee sodati hondi di hogima a konda da di sikoutu
   'It was when the soldiers hunted the bad guy that he
   related to the policeman.'

Since (7a,b) are grammatical, as are all such Ss, then this
is a good indication that di and ka are in a COMP
position since they would have to be under the same dominating
superordinate node with the following clauses (which should
be S') for movement to jointly take place. However, whether
ka and di were moved to S' position or were base-generated
remains unknown since in either case, they would,
supposedly, still dislocate with a following clause.

Other data which reinforces the S' conclusion is the
dislocation pattern of the constituents following di and ka
in (2). When these items are preposed to S-initial position
as in (8) and (9) below, the result is ungrammatical in
every instance.
8a) *dee sodati a konda da di sikoutu ka t
the (pl) soldier he tell give the policeman where
hondi di hogima
hunt the bad-guy
b) *ambe a konda da di sikoutu ka t hondi di hogima
who...
c) *di hogima a konda da di sikoutu ka dee sodati hondi t
the bad-guy...
d) *ambe a konda da di sikoutu ka dee sodati hondi t
who...
e) *hondi a konda da di sikoutu ka dee sodati hondi di
hunt...
...hunt...
hogima

9a) *dee sodati a konda da di sikoutu di t
the soldiers he tell give the policeman when
hondi di hogima
hunt the bad-guy
b) *ambe a konda da di sikoutu di t hondi di hogima
who...
c) *di hogima a konda da di sikoutu di dee sodati hondi t
the bad-guy...
d) *ambe a konda da di sikoutu di dee sodati hondi t
who...
e) *hondi a konda da di sikoutu di dee sodati hondi di
hunt...
...hunt...
hogima
If we were right in Chapter III, then whenever a moved element occupies a COMP node, all further movement is blocked. We might want to extend the generalization in this chapter to include any constituent, whether moved or base-generated (but see section 4.3). If this is the correct approach, then an explanation of (8) and (9) is readily available; ka 'where' and di 'when' occupy COMP nodes and as such, dislocation in (8) and (9) (and all other similar Ss in the data-base) would violate Subjacency.

Other evidence additionally results in the same conclusion. As discussed for (55) and (64) in Chapter II, a common characteristic of many subordinate clauses in SA is the ability of their constituents to focus or copy (in the case of verbs) in S' positions immediately following a complementizer-like verb such as taa 'say, that' or fu 'for' as in (10) and (11) (see also sections 4.2.5.2 and 4.3).

10a) Kofi meni taa di womi bai di folo
  Kofi think say the man buy the flower
  'Kofi thinks that the man bought the flower.'

b) Kofi meni taa bai di womi bai di folo
   ...buy... ...buy...
   'Kofi thinks that the man BOUGHT the flower.'

c) Kofi meni taa di folo di womi bai t
   ...the flower...
   'Kofi thinks that it was the flower that the man bought.'
d) Kofi meni taa di womi hen t bai di folo
   ...the man HE...

'Kofi thinks that it was the man who bought the flower.'

11a) a ke fu di piki mii bebe di meliki
   he want for the small child drink the milk

   'He wants the baby to drink the milk.'

b) a ke fu bebe di piki mii bebe di meliki
   ...drink...

   'He wants the baby to DRINK the milk.'

c) a ke fu di piki mii hen t bebe di meliki
   ...the small child HE...

   'He wants for it to be the baby who drinks the milk.'

However, when ka and di precede the subordinate clause, movement to subordinate-initial position (i.e. S') such as in (10) and (11) is impossible; such preposing or copy always results in an ungrammatical string such as in (12) and (13).

12a) *a konda da di sikoutu kadee sodati de t
   he tell give the policeman where the soldier THEY
   hondi di hogima
   hunt the bad-guy

b) *a konda da di sikoutu ka ambe t hondi di hogima
   ...who...
From previous discussions, we have concluded that all movement in SA is COMP-to-COMP. This means that any unoccupied COMP position is a potential "landing site," at least theoretically. In actual fact, some COMP positions cannot be overtly occupied even though there is no other
constituent (including trace) filling them. However, these restrictions are not pertinent here and will be discussed when appropriate. For the present, it is enough to say that taa 'say, that' and fu 'for' in (10) and (11) exhibit more than sufficient characteristics as we will see (including TNS and verb copy) to consider them to be verbs which subcategorize for S' complements. They thereby do not occupy COMP positions but precede them and these can be appropriately filled by focussed or copied constituents from the clauses which they introduce. ka 'where' and di 'when', on the other hand, do not exhibit any characteristics of verbs. They cannot be preceded by TNS, ASP or modality markers, nor can they copy.

14a) *a konda da di sikoutu bi- ka dee sodati
   he tell give the policeman TNS-where the soldier
   hondi di hogima
   hunt the bad-guy

b) *a konda da di sikoutu ta- ka dee sodati hondi di
   ...
   ...ASP...
   hogima

c) *a konda da di sikoutu sa- ka dee sodati hondi di
   ...
   ...MOD...
   hogima

d) *ka a konda da di sikoutu ka dee sodati hondi di
   where...
   ...
   ...where...
   hogima
15a) *a konda da di sikoutu bi- di dee sodati hondi di
...TNS-when...

hogima
b) *a konda da di sikoutu ta- di dee sodati hondi di
...ASP...

hogima
c) *a konda da di sikoutu sa- di dee sodati hondi di
...MOD...

hogima
d) *di a konda da di sikoutu di dee sodati hondi di
when...

hogima

From (14) and (15), it is fairly evident that ka 'where' and
di 'when' are not verbs as are taa 'say, that,' and fu
'for'. It also seems evident from (12) and (13) that they
do not subcategorize for S' complements. If we thus suppose
that ka 'where' and di 'when' are themselves in S'
positions, then data-sets (12) and (13) are explicable;
since the position is already filled, no other constituent
may move to it nor, as in (8) and (9), may leftwardly
dislocate past it. (12) and (13) thereby point toward ka and
di occupying COMP nodes. Based on this and previous
evidence then, we will conclude without further ado that ka
and di indeed occupy COMP positions. Still unanswered,
however, is the categorial status of ka and di and whether
one and/or the other are base-generated or moved to a COMP position. Let's therefore turn to item-specific features to see if we can answer these final questions.

4.1.1 **ka 'where'**

In looking more closely at *ka 'where',* we find first that if it occurs S-finally, it is not interpreted as *ka* but rather as the adverbial *kaa 'already'* (to be discussed in Chapter VI).

16a) ?Kofi si a ta-ko ka

Kofi see he ASP-come to that place

'Kofi saw him coming to that place.'

b) ?Samo njan ka

Samo eat at that place

'Samo ate at that place.'

17a) Kofi si a ta-ko kaa

...already

'Kofi already saw him arriving.'

b) Samo njan kaa

'Samo ate already.'

Nor can it occur in this position with the general locative preposition *a* preceding.

18a) ?Kofi si a ta-ko a ka

...at that-place

'Kofi saw him arriving at that place.'
b) ?Samo njan a ka
'Samo ate at that place.'
Again the Saramaka interpret the string differently (thus the question marks in (16) and (18) since it is not really unacceptable, just interpreted differently): this time as the two adverbials ala kaa or aa kaa 'there already'.

19a) Kofi si a ta- ko a(1)a kaa
Kofi see he ASP-come there already
'Kofi already saw him coming there.'

b) Samo njan a(1)a kaa
Samo eat there already
'Samo already ate there.'

Nevertheless despite (16) through (19), there is evidence that ka 'where' has undergone movement to COMP rather than being base-generated in that position. For one, we have the paradigm in (20).

20a) a bi- go luku ka a ta- wooko
he TNS-go look-at (the-place)-where he ASP-work
'He had gone to look at where he is working.'

b) ka a bi- go luku a ta- wooko
the-place-where he TNS-go look-at he ASP-work
'It was at that place where he had gone to look at him working.'

In (20a,b), ka has moved from the subordinate COMP node to S-initial position, plausibly beginning this movement from the position following wooko 'work'. That position is empty.
which suggests that it may be occupied by trace. Notice along these lines that the wh-form naase 'at-where' follows the exact same pattern in (21) and is unambiguously a result of Move Alpha and thus leaves trace (t).

21a) a bi-go luku a ta-wooko a di wosu

'He had gone to look at him working at the house.'

b) a bi- go luku [naase [a ta- wooko t ]]

...at-where...

'He had gone to look at where he is working.'

c) naase a bi-go [t [ luku [t [a ta-wooko t ]]]]

'Where had he gone to look at him working?'

Next, with ka 'where' in (20a,b) being a result of movement, then ka has absorbed the the locative θ-role which wooko 'work' has assigned and no other locative elements should be allowed; otherwise there would be a violation of the θ-Criterion. If another locative such as a di wosu 'at the house' in (22a,b) did appear, this would mean that ka does not contain a θ-role and would thereby be a base-generated subordinate marker of some sort.

22a) *a bi-go luku ka a ta-wooko a di wosu

...where... ...at the house

b) *ka a bi-go luku a ta-wooko a di wosu

the-place-where... ...at the house

If the trace of ka thus follows wooko 'work', then the unacceptability of (22a,b) is exactly what one would expect
based on the θ-Criterion and with two items occupying one and the same position.

Also interesting is the variable occurrence of the preposition a 'in, at, etc.' preceding ka in (23a) and of the equally grammatical (23b) without a but with exactly the same meaning.

23a) a ka a ta-wooko²

at that-place-where he ASP-work

'It is at that place where he is working.'

b) ka a ta-wooko

at-that-place-where...

'It is at that place where he is working.'

Now prepositional phrases are not base-generated in COMP position, but only in a S-structure proper (see sections 2.3.2.3 and 3.3.2). It should be the case then that a ka 'in, at, etc.-that-place' originated in the position following wooko 'work' and thus leaves a trace (t) as in (24).

24) a ka a ta-wooko t

'It is at that place where he is working.'

2. In presenting (23a) and other similar Ss with a ka 'at that-place-where' to other speakers, the reaction was that it seemed all right but that they would never use it. However, the speaker who produced (23a) continued to maintain that he often used a ka rather than just ka in S-initial position.
It should likewise be the case that complex Ss such as (20) should have a structure and pattern of movement as in (25) (with the coindexing indices in parentheses).

25) S'
   COMP
   /  \  \
   S    S'
   /  \    /  \
 NP INFL VP S'  S
   /     \
 V     COMP
   /  \    /  \
 NP INFL VP S'  S
   /     \
 V     COMP
   /  \    /  \
 NP INFL VP S'  S
   /     \
 V
 ka(i) a bi go t(i) EC luku t(i) a ta wooko t(i)

'It was at that place where he had gone to look at him working.'

We'll justify the configuration in (25) in Chapter VI, but for the present, if the previous analysis is correct, then ka should be a locative pronominal which replaces other locatives. It is thereby very similar to hen 'HE, etc.', which may accompany focussed NPs as in (26b) (see the NP focus section of Chapter II) or appear in COMP position by itself in (27b,c) as the emphatic form of en 'him, etc.' or a 'he, etc.'.

26a) a si taa di womi suti di djangafutu
   he see that the man shoot the long-foot
   'He saw that the man shot the deer.'
b) a si taa [S' di djangafutu hen [S di womi su ti t ]]  
... the deer          IT...

'He saw that it was the deer that the man shot.'

27a) Kofi si taa a su ti en  
... he.. .. it

'Kofi saw that the man shot it.'

b) Kofi si taa [S' hen [S di womi su ti t ]]  
... IT...

'Kofi saw that it was it that the man shot.'

c) Kofi si taa [S' hen [S t su ti en ]]  
... HE...

'Kofi saw that it was him who shot it.'

From the preceding evidence, then, we will conclude that ka is a pronominal which substitutes for locative prepositional phrases.

4.1.2 di 'when'

Besides introducing subordinate complements, di also functions in other roles: as a definite article and as a relative marker. As exemplified in previous chapters, definite article di marks for singular and alternates with dee, the plural definite article. This dichotomy is in agreement with Markey's (1982) general observation that creoles mark number within a NP through the article system and not by any morphology on the noun itself. Concerning
relativizer *di*, we'll discuss this formative in the following section.

Turning to *di* 'when', we noted the possibility in (5-6b) that this item is also a result of Move Alpha. That is, like its *wh* counterpart, *naunten* 'when' in (1b), it too could supplant an R-expression and move to S' position. It would not, however, have question force, but like *ka* 'where; at, in, etc.-that-place' and *hen* 'HIM, etc.' (and the relative markers *di/dee* - to be discussed), it is most probably a focussed pronominal (but like *ka*, one that cannot remain in base position).

As we saw in (22a,b), when there is a locative phrase co-occurring with *ka* in the position where it originated at D-structure, the resultant string is ungrammatical. The same is true for *di* 'when'; if *di* co-occurs with a time adverbial, the result, like (22a,b), is also ungrammatical.

28) *a go di a bi-ta-fefi di wosu jeside

   he go when he TNS-ASP-paint the house yesterday

   *He went when he was painting the house yesterday.*

Alternatively, if *jeside* 'yesterday' (or another time adverbial) does not appear in (28), the string is perfectly acceptable.

29) a go di a bi-ta-fefi di wosu

   'He went when he was painting the house.'
Presupposing that di 'when' has left trace in the position occupied by jeside 'yesterday', then (28) would not be grammatical because two items occupy one and the same position. Thus di 'when', like ka 'where, etc.' and other pronominals, is a result of movement and is not a product of the base component of the grammar.

4.1.2.1 Relativizer di. For its part, relativizer di apparently originated from the demonstrative disi 'this' since in an 1805 translation of the Bible into SA as seen in Schuchardt (1914), all relative clauses are introduced by this formative (spelled dissi in that text).

30) Ma tulu Sombre disi jeri hem... (Schuchardt 1914: 22)

but all people this hear him (translations added)

'But all the people who heard him...'

Nevertheless, relativizers in synchronic SA mark the number of the head noun and di thus alternates with the plural relativizer dee, a form homophonous with plural definite article dee. Note (31).

31a) a go a di wosu di de fefi jeside

he go to the house that(sg) they paint yesterday

'He went to the house that they painted yesterday.'

b) a go a dee wosu dee de fefi jeside

...that(pl)...

'He went to the houses that they painted yesterday.'
Since relativizers mark number in SA, they could be categorized as pronominals based on the criteria of Dreyfuss (1977). In a survey of relativizing strategies in various languages around the world, she points out (1977:35-6) that "relative pronouns are opposed to relative markers, which do not vary according to some feature of the coreferential NP and are not felt to be derived from it." Thus, since relativizers in synchronic SA reflect the number of the head noun and, according to all Saramaka worked with, take their semantic value from that noun (i.e. are coindexed with it), then from this viewpoint these relativizers are pronominals.

Dreyfuss (1977: 33ff) also types relativizers based on variability of form and appearance. The appropriate typology for SA is that the relativizers di and dee are, of course, variable in form and, additionally, variable in occurrence. That is, like the pronominals hen 'HE' and de 'THEY' which optionally appear when a NP focusses to a COMP position, di and dee are likewise optional. Thus the Ss in (32) are acceptably produced without relativizers.

32a) a go a di wosu ø de fefi jeside
   'He went to the house they painted yesterday.'

b) a go a dee wosu ø de fefi jeside
   'He went to the houses they painted yesterday.'

From a somewhat different perspective, Cinque (1982) finds that a pertinent difference between relative pronouns and relative markers is that the former (i.e. pronouns),
when they are objects of prepositions, allow pied piping of the preposition to COMP while relative markers do not. In SA, the overt appearance of a preposition with the relativizers *di* and *dee* is not allowed.

33a) wan sindeki de a di pau di Samo subi go t
   a snake be in the tree that Samo climb go
   'A snake is in the tree that Samo climbed up.'

b) *wan sindeki de a di pau a di Samo subi go t

...in...

34a) mi koti di fisi ku di/dee faka di/dee
   I cut the fish with the(sg/pl) knife that(sg/pl)
   Meri koti di beee t
   Mary cut the bread
   'I cut the fish with the knife(ves) that Mary cut the bread with.'

b) *mi koti di fisi ku di/dee faka ku di/dee Meri koti
   ...with...

di beee t

Cinquè (p. 261) also notes that there is a correlation between deletion up to recoverability of a relative pronoun and the pied piping of a preposition with its object NP during relativization. That is, when a relativizer is coindexed with its noun head, its value is recoverable and thus may delete. These deletable relativizers are the same ones which allow pied piping of a preposition.
Now SA allows the relativizers di and dee to delete as exemplified in (32a,b), but on the surface at least, it apparently does not allow pied piping as in (33-34b). There therefore seems to be a discrepancy with Cinque's correlation. However, if we assume that there is pied piping in SA and additionally, a filter deleting prepositions at PF with certain pronominals, then we have a reasonable explanation for the nonappearance of prepositions in COMP with di and dee. Note that there is some evidence for this approach with (23a) where one Saramaka preposes (i.e. pied pipes) a 'at' with the locative pronounal ka 'where'. If the other Saramaka have adopted the preposition filter in this context, then we have accounted for their entire range of output. Moreover, if all Saramaka pied pipe and delete prepositions with the relativizers di and dee, then this data is also accounted for and is consistent with Cinque's rendition of the properties of relative pronouns.

Whatever the final resolution of this question, the weight of evidence for the present favors a pronominal analysis. While the original form, disi 'this', was invariable in form and categorical in appearance (as far as we can tell from Schuchardt (1914)), and thus favors a relative marker conclusion (the norm in other creoles3),

3. That is, according to the members of the Creole Syntax Project of the University of Hawaii (p.c.) (which includes Robin Belvin, Derek Bickerton, Sabine Iatridou and
there is no reason why it could not have reanalyzed to become the relative pronouns di and dee. According to Derek Bickerton and his colleagues in the Creole Syntax Project at the University of Hawaii (p.c.), under this scenario disi 'this' would have reduced to di and added dee through analogy with the articles di and dee. In addition, according to the view here, relativizers di and dee would next have gone a step further and reanalyzed to pronominals.

In looking at the process of Move Alpha in relation to di/dee and other pronominals, the conclusion is additionally reinforced. For one, the relativizers di and dee leave a gap (i.e. an apparent trace) as in (33-34a) above and again in (35a,b) below.

35a) a go a di/dee wosu di/dee de fefi t jeside
...they...

'He went to the house(s) that they painted yesterday.'

b) a go a di/dee wosu Ø de fefi t jeside

'He went to the house(s) they painted yesterday.'

And two, di with a deictic sense appears in base positions.

36) di da di tangi wan

this be the strong one

'This is the strong one.'

---

Selene Zocchio), the usual situation in the many creoles that they have looked at is that a relativizer is invariable in form and categorical in appearance. They thus conclude that most creoles have relative markers rather than relative pronouns.
If \textit{di} in (36) is the same item as relativizing \textit{di}, then like
the pronominals \textit{ka} 'where', \textit{di} 'when' and \textit{hen} 'HE, etc.'
seen in the previous sections, all of which prepose, the
relative pronouns \textit{di} (and \textit{dee}) move to COMP as a result of
the application of Move Alpha. From these observations,
then, the relative clauses in (31) and (32) should have the
structure in (37)\textsuperscript{4} (with the indices in parentheses).

\begin{equation}
\textit{He went to the house(s) that ...'}
\end{equation}

---

\textsuperscript{4} We would have to suspend the 'i-within-i'
Condition (see Chapter I) for (35) and all other cases in
order for coindexing to take place between a head noun and
the following relative pronoun. However, if we include the
additional condition stated in (i) (from Chomsky (1981: 229,
Footnote 63)) to the 'i-within'i' Condition, then relative
clauses will not be problematic.

\textit{i)} unless \(\beta\) is coindexed with the head of \textit{a}

As Chomsky (1981: 229) observes, (i) will "permit
percolation of an index to the NP head of a relative
clause," given the configuration in (37).
4.1.3 biga 'because' and di 'since, because'

Like dislocated items occupying S' nodes, including ka 'where, etc.' and di 'when', biga 'because' and di 'since, because' also form islands and prohibit constituents from copying or leftwardly dislocating to S-initial position.

38a) a o-paka fu di bata biga di mii feen fu+en
   he MOD-pay for the bottle because the child for-him
   lobi en a di wosu vioo
   break it at the house forcefully
   'He will pay for the bottle because his child forcefully broke it at the house.'

b) *di mii feen a o-paka fu di bata biga t
   the child for-him...
   lobi en ...

c) *ambe a o-paka fu di bata biga t lobi en...
   who...

d) *a di wosu a o-paka fu di bata biga di mii feen
   in the house...
   lobi en t

e) *naase a o-paka fu di bata biga di mii feen lobi
   at-where...
   en t

f) *lobi a o-paka fu di bata biga di mii feen lobi en...
   break...
   ...break...
39a) mi da gaan tangi feen di a wasi dee lai
   I give great thanks for-him because he wash the thing
da di mujee jeside
give the woman yesterday
'I thanked him because he washed the things for the
woman yesterday.'
b) *dee lai mi da gaan tangi feen di a wasi t da
   the things...
di mujee jeside
c) *andi mi da gaan tangi feen di a wasi t da di mujee
   what...
jeside
d) *di mujee mi da gaan tangi feen di a wasi dee lai
   the woman...
da t jeside
e) *ambe mi da gaan tangi feen di a wasidee lai da t
   who...
jeside
f) *wasi mi da gaan tangi feen di a wasi dee lai da
   wash...
   ...wash...
di mujee jeside

However, even though the inability of any
constituent to dislocate or copy in the above Ss is
identical to the Ss with ka 'where, etc.' and di 'when' in
(6) and (7), other features nevertheless lead to the
conclusion that biga 'because' and di 'because, since' are
base-generated in place. Primary among these is the absence of any apparent gap which would indicate that Move Alpha has applied in (38) and (39). In addition, unlike di 'when' and ka 'where, etc.', di 'since, because' and biga 'because' in (38) and (39) readily co-occur with adverbials, thus indicating that they are not pronominal substitutes of these items. As a result of the phenomena exemplified in (38) and (39), then, the positions which biga 'because' and di 'since, because' occupy should be a product of the base component and not of Move Alpha.

In a perusal of the literature, the two likeliest categories to which biga 'because' and ~ 'since, because, etc.' may belong are complementizers and what have been called subordinating conjunctions. While these two form classes may appear similar, they are not. Let's review some of the differences.

As observed in Chapter II, complementizers in many instances (disregarding that-trace effects) allow movement from within the clause they introduce.

40a) Mary would like for John to visit her mother.
    b) Who would Mary like for John to visit?

41a) John thinks that Bill should visit the park.
    b) What does John think that Bill should visit?

But as observed by Geis (1969) and Bresnan (1977b), subordinating conjunctions such as in (42) and (43) behave as do wh-islands and do not allow constituent displacement
to positions outside of the clauses which they precede.

42a) He said "Yes sir" since proper etiquette was observed at that time.

   b) *When did he say "Yes sir" since proper etiquette was observed?

43a) John went out to play because his mother was at home.

   b) *Where did John go out to play because his mother was?

Also possible according to Emonds (1976: 8) (citing Klima (p.c.)) is for the clauses introduced by subordinating conjunctions to prepose.

44a) Since proper etiquette was observed at that time, he said "Yes sir."

   b) Because his mother was at home, John went out to play. But complementizers and their following clauses may not necessarily do so.

45a) *For John to visit her mother, Mary would like.

   b) *That Bill should visit the park, John thinks.

The reason for the above disparity probably has something to do with the nature and structural configuration of a subordinating conjunction as compared with complementizer-introduced clauses. Subordinating conjunctions are not integrally related to the matrix verb and certainly are not strictly subcategorized for, but, according to Emonds (1976: 172ff) and adopted by Baltin 1978: 82-3), are prepositional adjuncts of S which take either S or S' complements as in (46a,b) (depending on
whether Emonds or Baltin is right).

46a) \( PP \rightarrow P S \) (Emonds)

b) \( PP \rightarrow P S' \) (Baltin)

From these views, the Ss in (42) and (43) thus have a structure like (47) (with or without S').

47) 

\[
\begin{array}{c}
S' \\
\text{COMP} \\
\text{S} \\
\text{NP} \quad \text{VP} \\
\text{P} \\
\text{PP} \\
\text{S'} \\
\text{COMP} \\
\text{S}
\end{array}
\]

... since proper etiquette was observed at that time

... because his mother was at home

With either complement type of \( P \), the structure above would explain the inability of wh-movement from within the prepositional clause such as (42-43b). If PP is a bounding node as Baltin (1982: 83) claims and as we surmised may be true for SA in Chapter III, any moved element would have to cross S and PP to reach S-initial position, a violation of Subjacency. However, there would be no inhibition in extraposing the entire prepositional clause to an unoccupied COMP position, giving the results as in (44).

In regard to the that and for clauses in (40) and (41), they are integrally related to like and think in that these verbs strictly subcategorize for their respective sentential
complements. But, such clauses will not dislocate because a S or S' cannot leave trace and thereby cannot be reconstructed.

In once again returning to SA, the patterns and principles observed for English will now aid us in determining the nature of biga 'because' and di 'because, since'. Like the clauses with the subordinating conjunctions since and because in (42-43b), but unlike the clauses introduced by for and that which allow dislocation, one may not extract anything from di 'because, etc.' and biga clauses as we saw in (38) and (39). Additionally, again unlike for and that strings but like subordinating conjunctions, the entire clause may prepose as in (48a,b) (but with some minor changes).

48a) biga di mii feen lobi di bata a di because the child for-him break the bottle at the wosu, so noo a o- paka feen house so then he MOD-pay for-it 'Because his child broke the bottle at the house, he will pay for it.'

b) di a wasa dee lai da di mujee, mi da gaan since he wash the thing give the woman, I give great taangi feen thanks for-him 'Since he washed the things for the woman, I thanked him.'
Now these characteristics are also exactly like those described for ka 'where, etc.' and di 'when' clauses in (7) through (9) which are a product of movement, so these features are not conclusive by themselves. However, as additionally noted, unlike ka and di 'when', there are no gaps or readily apparent positions from where biga 'because' and di 'because, since.' could have moved. Furthermore, just as Rountree and Glock (1982: 95, 141) have observed that biga and di 'because, since.' introduce cause or reason clauses, so too do Emonds (1976) and Bresnan (1977b) include formative which introduce cause or reason clauses (i.e. since and because) among subordinating conjunctions. We thus might conclude, although contingent on future independently motivated confirmation, that biga and di 'because, since.' are base-generated subordinating conjunctions. From this conclusion, we could make the cross-categorial generalization that NP and S in at least SA both took S' complements introduced by invariable and categorical markers in COMP position. The NP, consistent with other creoles before the reanalysis process discussed in the previous section (see also Footnote (3) of this chapter), took relative clauses introduced by the relative marker disi 'this'. S, for its part, would also take S' complements introduced by invariant markers (i.e. subordinating conjunctions) such as biga 'because' and di 'since, because'.
Alternatively, if Emonds (1976) and Baltin (1982) are right and if their analyses apply to SA and other creole languages, then biga and di would be prepositions, but ones which subcategorize for sentential complements rather than just NPs. Moreover, if PP is a bounding node as Baltin (1982) claims for English, then we have a readily available explanation for why prepositions do not strand in SA; if, as previously noted, a NP (or S) complement were extracted alone it would have to cross S and PP nodes, a violation of Subjacency. Thus only prepositions and their complements may dislocate in SA.

Whether biga 'because' and di 'since, because' are prepositions or subordinating conjunctions will have to remain unresolved for the time being until additional data is available from SA and other creoles are examined in Bickerton and Byrne (forthcoming). In any case, having now discussed two constituent-types which might appear to be complementizers in SA but which are better looked at as other categories (i.e. specifically as pronouns and either subordinating conjunctions or prepositions), we will now turn to fu 'for' which at first glance could also be mistaken for a complementizer.
fu and its cognate fi in the English-based Atlantic creoles have been a major source of controversy among some creole scholars over the past decade or so. The debate has primarily been between Derek Bickerton (1973, 1977c, 1980, 1981, 1984) and William Washabaugh (1975; 1977; 1978; 1979; Footnote 3; 1980), although others (e.g. Byrne 1982b,d; 1983; 1984a,c; in press) have contributed. During the course of the debate, the categorial and structural status of fi/fu (hereafter FU) as well as their origin as been discussed and avidly contested.

As mentioned in Chapter I, Bickerton (1980, 1981, 1984) holds that FU originated from a verb fu during initial creolization and that it may still be verbal in some of the deeper creoles. Washabaugh, for his part, claims in his (1975: 116) paper that "... all ... functions of fi (i.e. FU (my insertion)) have ... evolved ... from a locative use of the preposition fi ..." While he is referring to Providence Island Creole in the above excerpt, the text of the paper as a whole leaves no doubt that he claims that the creoles of the world have all developed a complementizer from a prepositional locative FU or some other FU-like preposition. However, in his 1980 paper which is an update of the 1975 work, Washabaugh's position, while essentially unchanged, nevertheless gives credence to the possibility that FU may have been verbal at one time but is not today. He states
that "there are obviously prepositional uses of fi which have probably derived from a primordial verb fi by a process like serial verb reanalysis."

This section will look at FU in SA to determine its categorial status. At the same time, it will evaluate the claims and analyses of Washabaugh and Bickerton (and others) in the context of SA. First, however, we will review the proposed etymologies for FU and discuss the range of apparent functions of this formative in SA and other languages.

4.2.1 Etymology of fu

Various scholars over the past quarter century have proposed a wide variety of West African sources as the etymon of FU. Edwards (1974: 11) notes that fi could have come from the Twi motion verb fi 'come out, go out' (Christaller 1933: 124-26), or the Ewe possessive particle fe. Echteld (1962: 84) claims that fu derived from the Yoruba Dative particle fu, while Cassidy (1961: 67) observes that the Twi or Yoruba infinitive-forming particle fa could have resulted in fu.

Although Washabaugh (1975: 126-7; 1978: 251) endorses Edwards' and the others' claim that FU in the Atlantic English-based creoles originated from African sources, the data and analyses presented in Washabaugh's papers lead to a quite different generalization: that English for and a for-
like formative in other languages were the etyma for FU and its cognates. Washabaugh (1978: 254) holds that FU or a FU-like formative functions as a "preposition, a complementizer, and a mood marker" in many (if not all) of the creoles of the world. He presents intriguing data in support, although the claims must necessarily remain untested suppositions since he presents extremely limited independently-justified evidence for such categorial statuses. Nevertheless, as a first approximation and for purposes of exposition only, we will accept for the present that the categorial status of FU and other FU-like formatives seems to be divided between a preposition, a complementizer and a modality marker. Consider the sample data below.

Jamaican Creole

49a) I am going fe the battle⁵ (Jekyll 1907: 115)

'I am going to the battle.'

b) im gaan fi bied ... (Roberts 1975)

he go for wash (translation added)

'He went to wash ...'

---

⁵. It is presumed that Jekyll did not have any training in transcription and used normal English spelling to represent Jamaican Creole phonology. He would thus naturally spell /fi/ as fe.
c) yu fi mikies kom (Cassidy & Le Page 1967: 176)
you should make come (translation added)
'Hurry back!'

Providence Island Creole (South-west Caribbean)
50a) wi staat gan fi riif (Washabaugh 1975: 116)
we start go for reef (translation added)
'We started to go to the reef.'
b) ai mek fi stan op (Washabaugh 1975: 116)
I make for stand up (translation added)
'I tried to stand up.'
c) a me fi aks dem (Washabaugh 1975: 116)
I TNS for ask them (translation added)
'I was supposed to ask them.'

Guyanese Creole (Guyana, Northern South America)
51a) den yu go kaal fu boot ... (Bickerton 1975: 42)
then you go call for boat (translation added)
'Then you will call for a boat ...'
b) di rais wok get mo iizia fi du (Bickerton 1975:29)
the rice work get more easy for do (translation added)
'Rice farming becomes easier to do ...'

6. Note in (51a,b) that both fi and fu exist in
Guyanese Creole. According to Bickerton (p.c.), there are
no differences in the functional distribution of these
items. He adds that "a small minority (of Guyanese) are
(possibly) fi only speakers; some alternate between the two,
but as far as one can tell they are in free variation."
c) mi fi go tumara (Bickerton 1981: 109)
    I should go tomorrow (translation added)
    'I ought to go tomorrow.'

Hawaiian Creole English

52a) hu stei du yaw buk fo yu (Bickerton 1977a: 166)
    who stay do you book for you' (translation added)
    'Who does your accounts for you?'

b) we dei gon get da moni, nau, fo go help as gaiz
    where they go get the money now for go help us guys
    go saplai ... (Bickerton 1977a: 177)
    go supply (translation added)
    'Where are they going to get the money, now, to help us
    fellows to supply ...?'

Portuguese Creole of Senegal (West Africa) (data from
    Washabaugh 1978:254)

53a) gitis ki prisisa guja na kadera pa e bubuli
    people who need needle in ass for them move
    (translation added)
    'People who need in their ass a needle for them to
    move.'

b) mi ta pa bey
    I ASP should go (translation added)
    'I am supposed to go.'
Mauritius Creole (Indian Ocean)

54a) e les mo rod ehpe kas pu twa (Baker 1972:152)
   and let I look-for some cash for you
   'Let me look for some money for you.' (translation added)

b) e li desid pu al diman en eigit kari (Baker 1972:149)
   'And she decided to ask for a little bit of curry.' (translation added)

c) mo pu lakaz dime (Baker 1972: 110)
   'I will be at home tomorrow.' (translation added)

Sentences (a,b,c) in (49) through (51) exemplify the realizations of FU in a cross-section of Caribbean English creoles. In each case, FU functions as an apparent preposition, complementizer and modality marker. In Hawaiian Creole English in (52), fo from English for (Washabaugh 1975: 134), only fills apparent prepositional and COMP roles, but the absence of modality fo may be due to the extensive decreolization towards English (see Footnote (12) of Chapter I) that the language has undergone. Now considering non-English-based creoles, observe that, again, the same pattern appears. In (53), pa from Portuguese para 'for' (Washabaugh 1975: 132), functions as an apparent complementizer and modal in the Portuguese Creole of Senegal (and is representative of the functions of pa in other
Portuguese-based creoles as well). In (54), pu from French pour 'for' (Washabaugh 1975: 133), functions in Mauritius Creole in all three discussed roles (and is also typical of structures in other French-based creoles). The generality thus seems to hold that many if not all of the creoles of the world were particularly disposed to seek out for or a for-like formative to function as an apparent preposition, complementizer and modality marker.

In each non-Caribbean creole mentioned and exemplified above, for or a cognate of for is the etymon of a FU-like formative. Hence, Hawaiian Creole English fo fairly obviously derives from for, and pu 'for' in the French creoles and pa 'for' in the Portuguese derive from pour 'for' and para 'for' respectively; no other etymology has ever been considered. Only in the Caribbean English-based creoles has there been doubt. Scholars began looking for an etymon among the West African languages forFU probably because of the implausibility of fi (but not fu) originating from for. While it is true that creoles extensively restructure the required lexicon of their superstrate language (see Bickerton and Odo (1976: Chapter 2)), still a change of for to fi, but not to fu, would be quite a phonological accomplishment which, according to Edwards (1974: 11), "is not a common sound change in the formation of Creole word forms."
In a brief summary of the details in Byrne (1982a: Chapter III; 1984b), those works showed that vowel assimilation in the Suriname creoles for which data is available (SA, Djuka, Sranan, and Kwinti) applies when fu (among other formatives) is followed by a vowel initial personal pronoun (see section 4.2.2 and Footnote (8) in this chapter for the rule in SA). Among its results is the derivation of fi 'for' from fu when that formative is followed by the pronoun i 'you(sg)'. Thus we have fii 'for-you(sg)' in SA, Djuka, and Sranan (there is no data from Kwinti for this particular item). Assuming a similar rule in the original Surinamese creole in the 17C (see Byrne (1984b) for details), then the presence of fi in other Caribbean English-based creoles, notably in Jamaican, Providence Island, and Guyanese Creoles, is easily explained. Using the figures in Cundall (1919) and Price (1976), approximately 2300 Surinamese slaves were transported to Jamaica over a nine year period ending in 1675. With these transported slaves having contact with the slaves already on the island, a modified version of the assimilation rule, something like as seen in (55) below, was transmitted to early Jamaican Creole.

55) u \rightarrow i / f i (C) + [+nas]

Among the results of (55) was a derived fi 'for' with the third person singular (Nominative and Objective) pronoun
...'s/he/it/him/her' as in fii(m) 'for-s/he/it/him/her'. This derived fi would then have been reinforced by the Twi motion verb fi since many of the early Jamaican slaves were Akan speakers (Le Page and DeCamp 1960). Eventually, fi became categorical in Jamaican Creole.

An explanation of fi/fu in the other Caribbean creoles exemplified in (49) through (51) is now quite easy since fu from for was the original form among these languages. fu in Guyanese Creole is self-explanatory - fu has remained unchanged since the item first entered its lexicon. For fi, the evidence, however scanty, points towards emigration from Jamaica as the influence which disseminated the formative. Bickerton notes (p.c.) that fi in Guyanese Creole only exists in "enclaves of alleged Jamaican extraction." Likewise, Washabaugh observes (1975: 115) that Providence Island Creole is "a version of CARRIBEAN ENGLISH similar to that of Jamaica." Thus, if after the formation of fi through the borrowed assimilation process from the slaves from Suriname, slaves from Jamaica added to those already in Guyana and populated Providence Island, the presence of fi in these creoles is a direct result of the transplanted Jamaican Creole.

4.2.2 fu in SA

FU in SA is often realized as fu or u (i.e. reduced fu). Note the following Ss.
56a) de go fu sindo
they go for sit-down
'They went to sit down.'

b) de go u sindo
they go for sit-down
'They went to sit down.'

57a) i musu aba lio fu go a di pandasi kamia
you(sg) must cross river for go to the plantation place
'You have to cross the river to go to the plantation.'

b) i musu aba lio u go a di pandasi kamia
you must cross river for go to the plantation place
'You have to cross the river to go to the plantation.'

As (56) and (57) exemplify, both u and fu are common before verbs (i.e. sindo 'sit-down' and go 'go' respectively).
However, there is no meaning difference and the distribution seems to be random: there is no discernable pattern for the presence of either fu or u other than, according to Catherine Rountree (p.c.), fast or careful speech.

In other contexts, regressive vocalic assimilation occurs with fu. That is, when a vowel-initial personal pronoun or some other vowel-initial monosyllabic formative follows fu, the /u/ of fu assimilates to the following vowel. Consider (58).
58a) Sambrie bi- ko faa njan di suki feen fu+a
Sambrie TNS-come for-he eat the sugar for-him
'Sambrie had come to eat his sugar.'

b) a ke faa matu [a kisi di ogifou t]?
he want for-in jungle he catch the evil-bird
'He wants for it to be in the jungle where he catches the owl.'

c) mi ke fii go
fu+i
I want for-you(sg) go
'I want for you to go.'

d) a taki deen fuu go
da+en fu+u
he say give-him for-we go
'He said to him that we should go.'

e) a ke fu un sei en (SIL 1977:117)
he want for you(pl) sell it (translation added)
'He wants for you to sell it.'

7. a matu 'in the jungle' in (58b) has moved from its base-generated position to the clause-initial COMP position following fu 'for'. See (120) and the accompanying discussion in this chapter for more details.
f) a ke fu de sei en (SIL 1977: 119)
he want for they sell it (translation added)
'He wants them to sell it.'

g) a ke fu mi sei en (SIL 1977: 119)
he want for I sell it (translation added)
'He wants for me to sell it.'

Presupposing a morpheme-boundary deletion rule before assimilation, the Sandhi-forms (i.e. fu + following formative) in (58a,b,c) demonstrate that assimilation takes place whenever monosyllabic, vowel-initial items such as i 'you(sg)', a 's/he/it', en 'him, her, it' and a 'in, at, etc.' follow fu (e.g. fii 'for-you', faa 'for s/he/it', feen 'for-him, etc.', faa 'for-in, at, etc.'), (58d,e) show no change due to the vocalic homophony of fu with u 'we' in (d) above and un 'you(pl)' in (e). (58f,g) illustrate that neither rule applies when the condition of the presence of a vowel-initial pronoun is not met. Hence, using a Chomsky-Halle (1968) feature system, the assimilation rule for 'fu + pronominal' should look something like (59).8

\[
59) \quad u \rightarrow \begin{array}{c}
\begin{array}{c}
\text{a hi} \\
\text{\beta bk} \\
\text{\gamma tns}
\end{array}
\end{array} + f \begin{array}{c}
\begin{array}{c}
\text{a hi} \\
\text{\beta bk} \\
\text{\gamma tns}
\end{array}
\end{array}
\]

---

8. Norval Smith (p.c.) does not agree that morpheme boundaries are deleted before assimilation takes place. He adds that to avoid this problem, a better representation may be something along the lines of "nonlinear phonology (cf.
And SA fu, whether having undergone assimilation or not, behaves like other creoles in that it likewise functions as an apparent preposition, modality marker and complementizer. I qualify the previous statement since the categorial status of fu in its various roles is yet to be determined. The following will therefore be an in-depth analysis of fu in each of these possible categories to ascertain if the labels are correct.

4.2.3 fu as Preposition

In Chapter II we noted that besides ku 'with' and a 'in, on, at, etc.', fu also functions prepositionally when it introduces locative, possessive, and Secondary Theme roles. Consider first (60) below.

60) de naki wanlo sembe u Godo
they hit some people from Godo
'They hit some people from Godo.'

u in u Godo 'from Godo' is the reduced form of fu. In this

McCarthy 1982) ... [in which] the morphemic attachments [are] expressed in terms of hierarchical trees" as in (i).

1) \( V(1) \)
   \[
   \begin{array}{c}
   \text{V(2)} \\
   \hline
   V
   \end{array}
   \]

Smith observes for (i) that "the vocalic melody attached to the first V-slot (in the case of fu 'u') is disassociated, and that associated with the second V-slot spread across to the first V-slot."
use of the item, which might best be described as indicating place of origin, neither Godo nor the entire phrase u Godo can be independently dislocated to S-initial position.

61a) *Godo de naki wanlo sembe u t
     Godo they hit some people from

61b) *u Godo de naki wanlo sembe t
     from Godo...

Only when accompanied with wanlo sembe 'some people' as in (62) is u Godo 'from Godo' successfully moved.

62) wanlo sembe u Godo de naki t
     'It is some people from Godo that they hit.'

The locative use of fu thus constitutes a NP-internal prepositional phrase since it exactly follows the dislocation pattern for this configuration previously noted for Comitative ku in Chapter II. That is, (61a,b) are ungrammatical because of the A-over-A Principle (and Subjacency - see section 3.4). Only the entire NP can be focussed as shown in (62).

Genitive use of prepositional fu is also NP-internal. Note the duplication of the pattern seen above with fu Johanesi 'for Johanesi' in (63).

63a) koosu fu Johanesi tene biga a bi-ta-feti
clothes for Johanesi torn because he TNS-ASP-fight
     'Johanesi's clothes are torn because he was fighting.'

63b) *Johanesi koosu fu t tene biga a bi-ta-feti
     Johanesi clothes for...
c) *fu Johanesi koosu t tene biga a bi-ta-feti

for Johanesi clothes...

d) koosu fu Johanesi hen t tene biga a bi-ta-
clothes for Johanesi it torn because he TNS-ASP-
feti
fight
'It is Johanesi's clothes that are torn because he was
fighting.'

(63b,c) are ungrammatical for the same reasons as for (61).
And, again, only the entire subject NP can be focussed as
seen with the focus marker hen 'IT' following Johanesi (see
Chapter II) in koosu fu Johanesi 'Johanesi's clothes' as
shown in (63d).

Finally, prepositional fu functions as a Secondary
Theme marker when it follows verbs signifying a commercial
transaction as in (64).

64) i o- paka u di mote (SIL 1977: 137)

you will-pay for the motor (translation added)

'You will pay for (the use of) the motor.'

According to Jackendoff (1974: 35), Ss with verbs like buy,
sell, pay, and trade, imply two related actions. First is
the transfer of something from one person to another; second
is the exchange of something else in the reverse direction.
In (64) above, the verb paka 'pay' implies someone who pays,
someone who is paid, the transfer of money in one direction,
and the exchange of something in the reverse direction. The
something which is exchanged in the secondary action is \textit{di mote} 'the motor'. Thus Secondary Theme is introduced by \textit{fu} (in this case \textit{u}) in SA.

In (64), however, unlike genitive and locative uses, the \textit{fu} phrase is not dominated by a NP and it may thereby independently focus. Consider (65).

65a) \textit{u di mote i o-paka t}

\textit{for the motor you will-pay}

'It's for the motor that you will pay.'

b) \textit{*di mote i o-paka u t}^{9}

In (65a), the entire \textit{fu} phrase can be extracted from its base position to S-initial (i.e. COMP) position, but for \textit{di mote} 'the motor' in (65b) to focus independently of \textit{fu} is ungrammatical. In other words, just as locative preposition \textit{a} and Instrumental \textit{ku} can never be stranded, so too can \textit{fu} never be stranded when it functions as a Secondary Theme marker. Secondary Theme \textit{fu} is therefore also a preposition.

4.2.4 \textit{fu} and Other Quasi-Modals

Various analyses of what appears to be "modal" \textit{fu} have appeared over the years (hence the quotation marks since its status remains in doubt). B. Bailey (1966) and Loretto Todd (1974) have claimed that \textit{fi} in Jamaican Creole

9. If we considered \textit{u} in (65b) to be a pronominal, then the string would be grammatical. In this case, it would read as 'It is for the motor that you will pay \textit{us}.'
and *fo in West African Pidgin English are auxiliaries. Washabaugh (1975), while discussing Providence Island Creole in particular, claims that "modal" FU is actually a complementizer introducing an abstract verb of obligation which never appears at PF. Hilda Koopman (p.c.), for her part, contends that quasi-modals in the various creoles are like raising verbs. Finally Bickerton (1980), in agreement with Bailey and Todd, states that pre-main-verbal *fi in Providence Island Creole is a modal auxiliary, but originally stemmed from a verbal FU in Providence Island and other creoles. The claims of Bailey and Todd are language-specific and thereby only pertain to those languages under discussion, but those of Bickerton, Koopman and Washabaugh are general and relate, ultimately, to the syntactic nature of the creolization process. While any claims in this work on the nature of creolization will remain tentative and cautious, we will nevertheless see in the present analysis of "modal" *fu and related formatives in SA (and COMP-like *fu in section 4.2.5 as well) that Bickerton's claim is closer to the facts. Koopman's contention, while perhaps with merit, is impossible to validate here since there are never any overt NPs (neither pronominals nor R-expressions) following quasi-modals in SA.

4.2.4.1 *fu, Modals and Quasi-Modals. Steele (1978:20), in reviewing the semantic range of modals, states
that "by modal, I mean elements which mark any of the following: possibility or the related notion of permission, probability or the related notion of obligation, certainty or the related notion of requirement." The repertoire of markers in SA which meet these semantic limits are few and include _sa_ 'possibility modality', most likely from Portuguese _saber_ 'to know', _o_ 'probability' from _go_ 'go', _musu_ 'obligation' from English _must_, and _fu_, also 'obligation modality' and best looked at as deriving from English _for_ based on the observations in section 4.2.1 and Byrne (1982a: Chapter III; 1984b). However, the semantics of an item do not necessarily have any relation to its formal properties. While semantically _sa_, _musu_ and _fu_ signal modal concepts, their syntactic characteristics (with the exception of _o_) lead to a quite different conclusion; in each instance, _sa_, _musu_ and _fu_ are main verbal and most probably subcategorize for finite Ss introduced by a S' node.

The above-mentioned forms (including _o_ 'probability') characteristically follow a subject NP except when the TNS particle _bi_ intercedes, and both precede what might appear to be the main verb or the ASP particle _ta_. Consider (66) through (69).

66a) _di womi sa wooko a di bakaa wosu_  
_the man may work at the white-man house_  
'The man may work at the white man's house.'
b) di womi bi- sa wooko a di bakaa wosu
   ...TNS-...
   'The man may have worked at the white man's house.'
c) di womi sa ta- wooko a di bakaa wosu
   ...ASP-...
   'The man may be working at the white man's house.'

67a) di womi musu wooko a di bakaa wosu
   ...must...
   'The man must work at the white man's house.'
b) di womi bi-musu wooko a di bakaa wosu
   'The man must have worked at the white man's house.'
c) di womi musu ta-wooko a di bakaa wosu
   'The man must be working at the white man's house.'

68a) di womi fu wooko a di bakaa wosu
   ...should...
   'The man should work at the white man's house.'
b) di womi bi-fu wooko a di bakaa wosu
   'The man should have worked at the white man's house.'
c) di womi fu ta-wooko a di bakaa wosu
   'The man should be working at the white man's house.'

69a) di womi o- wooko a di bakaa wosu
   ...will...
   'The man will work at the white man's house.'
b) di womi bi-o-wooko a di bakaa wosu
   'The man will have worked at the white man's house.'
c) di womi o-ta-wooko a di bakaa wosu

'The man will be working at the white man's house.'

From the above data, it could be quite easy to interpret sa, musu and fu as true modals within INFL in the frame [NP ____ VP] since they seem to follow the canonical creole order of such particles within INFL discussed in Bickekrton (1981: 58, 306). This order is TNS-MOD, MOD-ASP, TNS-ASP and TNS-MOD-ASP as seen above and in (70) below.

70) a bi- o- ta- woko
    he TNS-MOD-ASP-work

'He will have been working.'

Any other combination of orders is ungrammatical as in (71) (and (15) in Chapter II).10

71a) *a bi- ta- o- woko
    he TNS-ASP-MOD-work
b) *a ta-bi-o-wooko
c) *a o-bi-ta-wooko
d) *a o-ta-bi-wooko
e) *a ta-o-bi-wooko

However, other properties of sa 'may, might, etc.', musu 'must' and fu 'should' (but not o 'will') unambiguously point towards a main-verbal and not a modal status. For one, besides permitting the TNS marker bi before o, sa, musu

10. See Footnote (5) of Chapter II.
and \textit{fu} in the (b) Ss of (66) through (69), \textbf{all} speakers additionally accept the TNS marker following \textit{musu} and \textit{fu}, and some (as signalled by (\text{*})) in both positions at the same time as in (72b) with \textit{musu}.

72a) di womi musu bi- si en

the man must TNS-see him

'The man must have seen him.'

b) (\text{*}) di womi bi- musu bi- si en

...TNS... ...TNS...

c) di womi fu bi-si en

...should...

'The man should have seen him.'

d) *di womi o- bi-si en

...will...

Also possible is the combination \textit{musu fu V 'must should V'} with the TNS marker \textit{bi} independently and acceptably appearing before each of the three formatives. Consider (73).

73a) a musu (f)u go

he must should go

'He really must go (but maybe he won't).'</n

b) a bi- musu fu go

..TNS...

'He really should have gone.'
c) a musu bi- fu go
    ...TNS...
    'He really should have gone.'

d) a musu fu bi- go
    ...TNS...
    'He really should have gone.'

The exact meaning of the 'musu fu V' combination is hard to pin down, but as near as I can determine, both musu and fu impart a sense of obligation. However, the presence of fu additionally puts in doubt the consummation of the action represented by the following verb, in this case go 'go'. Now these two joint readings of fu are not unusual and, indeed, duplicate themselves repeatedly in this section. In any case, if it is true that these quasi-modals only precede what at PF appear to be individual verbs, then with musu preceding fu above, this would seem to indicate that fu is in fact verbal.

Turning to overt tensing in (72) and (73) above, since bi only appears preverbally within INFL (or before the aspect marker ta and/or actual modals within that category – see (71) and Chapter II), then (72) is explicable only if musu and fu are full verbs which subcategorize for sentential complements (more on this shortly). If musu and fu were true modals, then (72a,c) and (73b,c,d) would be ungrammatical. However if these items are full verbs, as is
s1 'see' in (72), then each item can be independently
tensed, a pattern which reappears throughout the grammar.

With sa preceding bi which in turn precedes a verb,
the resultant string, sa bi-V 'would, may, etc. have-V', is
interpreted as the homophones sabi V 'know V'. However,
such accidental phonological equivalence does not
necessarily negate the status of sa as a main verb. In
fact, as is possible only with verbs (see sections 2.3.2.2
and 3.3.3), some speakers (as again represented by (*)) may
copy sa as well as musu and fu, but not o 'will' nor the TNS
and ASP markers bi and ta (see (12) and (13) of Chapter II).

74a) (*)sa a sa wooko a di kadii
   may he may work on the porch
   'He MAY work on the porch.'
   b) (*)musu a musu wooko a di kadii
      must he must work on the porch
      'He MUST work on the porch.'
   c) (*)fu a fu wooko a di kadii
      should he should work on the porch
      'He SHOULD work on the porch.'
   d) *o a o- wooko a di kadii
      will he will work on the porch
   e) *bi a bi- wooko a di kadii
      TNS he TNS--
   f) *ta a ta- wooko a di kadii
      ASP he ASP--
From the above data and that in (72) and (73), it should be apparent that "will" is directly dominated by INFL, but sa, musu and fu are not. The latter are verbal because a.) from the data so far seen, all speakers can independently tense either or both the quasi-modal and the following verb (with, perhaps, the exception of sa) and b.) some speakers can copy each quasi-modal. Both of these are characteristics only of verbs and not of any other category and as such, either by itself should be sufficient to conclude that an item is verbal. On the other hand, the absence of one or the other means that an item has begun to lose its verbal qualities and is undergoing reanalysis. The absence of both as with o means that the process has completed its cycle and the item has undergone a category change, in this case from verb to modal. Thus for those speakers of SA who do not allow verb copy in (74), the process of reanalysis has begun and will eventually terminate with the loss of tensing and then a complete category change.

Lightfoot (1979) points out that category change is first preceded by the loss of features characteristic of the prechange category. Eventually, with the loss of a sufficient number of features or of certain pertinent features in particular, it becomes unclear what category the item belongs to and reanalysis soon follows. That is, the maintenance of the original category becomes untenable since
the item would have a cluster of exception features. With this the case, category membership becomes sufficiently opaque so that the grammar by necessity forces a change. In relation to the quasi-modals in SA, we have seen in (66) through (69) and (72) and (73) that all speakers consulted still allow tensing (with, again, the possible exception of sa 'would, may, etc.'), but only some allow verb copy. Hence, the process of feature loss has begun for some and will continue until tensing is lost as well and, following the principles of variation theory, reanalysis will takes place as it apparently has with o 'will'. Of course when this happens, sa, musu and fu will no longer be main verbal and will structurally reposition themselves into the intermediate position within INFL. At that time, the following verb, wooko 'work', go 'go' or si 'see' in the data so far looked at, will configurationally become the matrix verbs. Note the process illustrated in (75).

11. Lightfoot (1979) has named the process The Transparency Principle. This should not be confused with a second language learning process which Langacker (1977), Naro (1978), Slobin (1977, 1980a, 1980b) and Wekker (1982) have identified with the same term. Briefly, according to Wekker (1982: 3), The Transparency Principle in relation to second language learning "refer(s) to some as yet ill-defined strategy of language learners to maintain a one-to-one mapping between underlying semantic structures and surface forms."

12. See Footnote (13) of Chapter II and the related discussion in that chapter.
The only mystery still left unexplained in the process is why SA speakers first lose verb copy and not tense. Whatever the answer, the fact still remains that with the loss of tensing for those who have already lost verb copy, the "modal" verbs would apparently become sufficiently opaque so that category change takes place.

Concerning quasi-modal fu, which is really the primary consideration of this section, its behavior is no different from musu and similar to sa. That is, although change is taking place in so far as some speakers of SA can no longer copy fu (as well as musu and sa), nevertheless fu is still main verbal just as musu and sa are and as such, fu needs no ad hoc or special analysis to arrive at that conclusion; the pattern is shared by other formatives as well. Indeed, Magloire-Holly (1982) shows that there is a set of quasi-modals in Haitian Creole which behave much like sa, musu and fu; while Haitian Creole speakers allow tensing, they do not allow verb copy. What is interesting here is that just as SA speakers are first losing verb copy, Haitian Creole speakers have also apparently first lost that
rule in this context. Why this should be, again, remains a mystery. Nevertheless, the pattern of change from verb to modal is not unique to SA, but is shared by at least one other creole (and possibly a West African language, Yatye, as well – see Stahlke (1970: 65ff)).

Regarding Haitian Creole, note that a quasi-modal and a following verb can be separately or jointly tensed as in (76).

76a) za te dwe maze (Magliore-Holly 1982:107) (English translations added through-’Jean better have eaten.’ out Magliore-Holly data)

b) za dwe te maze (p. 107)

Jean must TNS eat
’Jean must have eaten.’

c) za te dwe te vini (p. 116)

Jean TNS must TNS come
’Jean had better come.’

77a) za te met vini (p. 109)

Jean TNS can come
’Jean could have come.’

b) za met te kon vini (p. 109)

Jean can TNS ASP come
’Jean could have been coming.’

c) za te met te vini (p. 116)

Jean TNS can TNS come
’Jean could have been able to have come.’
In the above data, either dwe 'must', met 'can', or ka 'may' (i.e. reduced kapab 'may') or a following verb can be tensed as in (a,b) of (76) through (78). Alternatively, in the case of dwe 'must' and met 'can' in the two Ss of (76-77c), both the quasi-modal and the following verb can be tensed at the same time (like (72b) in SA). However, unlike the apparently more conservative SA, a copy of a quasi-modal can never be focussed.

In (79), which according to Magloire-Holly is representative of all quasi-modals in Haitian Creole, the attempt at dislocating a copy of ka 'may' is ungrammatical.

The evidence of separate tensing on the quasi-modals and the following verb is sufficient to conclude that at least dwe 'must', met 'can', and ka(pab) 'may' are main verbal and are not yet true modals syntactically. According to Koopman (1980: 32), Koopman and Lefebvre (1981: 200-1) and Magloire-Holly (1982: 93-4), Haitian Creole adheres to both a preverbal positioning of INFL and the canonical
creole order of elements within INFL, i.e. TNS-MOD-ASP. Thus, if we viewed dwe, met, and ka(pab) in (76) through (79) as modals, then the canonical order within INFL would be violated. However, with these same items viewed as verbs, then those Ss are explicable; quasi-modals and a following verb may be independently tensed just as in SA. And just as we have concluded that sa 'can', musu 'must' and fu 'should' in SA are verbal (albeit with the added motivation of verb copy for some speakers), so too does Magloire-Holly reach the same conclusion for the quasi-modals in Haitian Creole. She states (1982: 114,120) that "... les modaux representent une classe de verbes a part ... Il ressort donc que les différences sémantiques sont indépendantes du comportement syntaxique." However, as Magloire-Holly further concludes, the quasi-modals in Haitian Creole are apparently changing to true modals. If this is so, then Haitian Creole is a bit further along in the reanalysis process than is the case in SA since some SA speakers still allow verb copy, but none do in Haitian Creole.

4.2.4.2 Sentential Complements of Quasi-Modals.
Since sa 'would, may, etc.', musu 'must' and fu 'should' in (66) through (69) and (72) and (73) are preceded by an overt subject and are tensed (but noting Koopman's (p.c.) observation that quasi-modals are like raising verbs in that
they have no selectional restrictions on a subject NP\(^{13}\),
the only viable conclusion is that these items are main
verbs. An additional characteristic which as yet has not
been discussed is the ability of these verbs to
subcategorize. In all cases so far looked at, sa, musu and
fu are always followed by a verb (i.e. wooko 'work', go 'go
or si 'see' in (66) through (74)) and indeed must be so
followed since without such a verb, those examples would be
ungrammatical.

80) *a (bi-){sa (muSu) (fu)}

We can thereby say that these quasi-modals strictly
subcategorize for at least a verb. However, as we have also
seen, the verbs following the quasi-modals can be
independently tensed, with the possible exception of sa.
But even with sa it is very likely that the following verb
is finite since some speakers can apply 'focus of verb
copy'. As was shown, TNS on the following verb after a
quasi-modal seems to be the second feature to be lost in the
reanalysis process and if some speakers can still focus a
copy of sa, then most probably the verb following sa is
finite. It is simply the case that sa bi- 'would, may, etc.

13. It is not readily apparent how we could empirically substantiate Koopman's claim in SA.
have' is accidentally homophonous with sabi 'know' and would be interpreted in that way.

Continuing with overt TNS marking on the verbs following musu and fu, the presence of bi ensures that not only is the following verb finite, but because of the principles developed in the GB model of grammar, that these verbs additionally have independent propositional content. A [+TNS] specification for INFL, as was discussed in Chapter II, stipulates that a subject position be governed and Nominatively Case-marked. Moreover, even though the subject is not overt, the presence of an EC subject is necessary because of the Extended Projection Principle (EPP) which states that "clauses have subjects" (Chomsky 1982:10). Note also along this same line that si 'see', go 'go' and wooko 'work' certainly θ-mark for Agent roles. Given the Projection Principle which states that "the θ-marking properties of each lexical item must be presented categorically at each syntactic level" (Chomsky 1982: 8) and the θ-Criterion which is that "each argument bears one and only one θ-role and each θ-role is assigned to one and only one argument" (Chomsky 1981: 36), as well as the EPP, EC subjects are thereby categorial in these contexts. Thus the verbs following musu and fu (and probably sa) are within subordinate Ss and are preceded within that category by INFL and subject nodes. And because the presence of bi is equivalent to a [+TNS] designation within INFL, such a
designation implies that a governed and Case-marked subject is present. This pattern of an EC subject, quite often optionally overt in other SA structures as we will see in Chapters V and VI, repeats itself over and over throughout the grammar. Just what the categorial status of this element is will be discussed in the following section. For the present, we now know that sa, musu and fu subcategorize for at least S complements and the examples in (66) through (72) therefore at least have a structure like (81).

81) \[ \text{[S NP INFL \{sa\} [S e INFL VP ]]} \text{[musu]} \text{[fu]} \]

In looking at wh-movement from the subordinate clauses in (66) through (69), note that in each instance in (82) below such dislocation is grammatical.

82a) naase di womi sa wooko
at-where the man may work
'Where may the man work?'

b) naase di womi musu wooko
...must...
'Where must the man work?'

c) naase di womi fu wooko
...should...
'Where should the man work?'

d) naase di womi o- wooko
...will...
'Where will the man work?'
As concluded in Byrne (1984b,c) and in section 3.4, S is a bounding node in SA. If the clauses containing sa, musu and fu and their complements had a structure as in (81), then (82) would be ungrammatical except for (d). In (82a,b,c), the preposed naase 'at-where' would have to cross two S nodes to reach COMP-initial position, a violation of Subjacency. In (82d), on the other hand, since o 'will' no longer exhibits any verbal features and has changed to a modal within INFL, two S nodes would no longer exist and there would be no principled way to block movement.

Since movement is grammatical in (82a,b,c), then the structure in (81) is not correct. There must be a "bridge" (i.e. a COMP node) introducing the subordinate clauses in these Ss since their well-formedness would be inexplicable otherwise. A better rendition of (81) should therefore be (83).

83) [S' [S NP INFL \{sa
musu \} [S' [S e INFL VP]]]]

And movement of naase 'at-where' in (82) would be as in (84).

84) [S' naase [S NP INFL \{sa
musu \} [S' t [S e INFL fu
V t ]]]]

Concerning reanalysis, the process of change to true modals has begun in SA (and Haitian Creole) as seen previously, but it is far from complete. While no overt
subject ever appears and the intermediate COMP position
cannot be used as a landing site, a copy of these quasi-
modals may still be focussed and, more importantly, both
they and their complements can still be independently
tensed. With tensing, a subject and S node are implied, and
with movement, a S' node is additionally implied by
Subjacency. So, while these items in SA are still the heads
of VP within S and subcategorize for S' complements, in
other creoles they may not be. What might have happened in
those creoles and what may happen in SA when copy and
especially tensing no longer apply is that reanalysis will
take place. At the same time, those nodes which no longer
dominate lexical material and/or are non-branching will be
eliminated. Thus, presuming a structure for the quasi-
modals in synchronic SA as in (83) and repeated as (85)
below, with both overt tensing of the complement verb no
longer possible¹⁴ and the lower INFL node left unfilled as
in (86), then the unfilled nodes would systematically delete
and the remaining lexical items would reorganize themselves
as in (87a,b,c). By (87c), sa, musu and fu would become
truemodals within the matrix INFL.

¹⁴. Such is certainly the case in many creoles. See for example Jansen et al. (1978) and Williams (1971, 1976).
We might expect that at some point in time the COMP node would delete, leaving a "bare" S as in (87a). Then, if the subordinate verb ceases to θ-mark, an EC subject as symbolized by e in (85) and (86) would no longer be possible and a nonfilled node, as symbolized by Ø in (87a), would ensue. Because the NP in (87a) would not dominate anything and the S would be nonbranching, both these nodes would be pared, leaving a structure something like (87b). Finally, after an undetermined amount of time, perhaps immediately, reanalysis should take place, in these cases to true modals.
If (87) represents the true progression of reanalysis, then we should necessarily guard against a too hasty analysis along the lines of (87b). At what point a verb ceases to θ-mark remains open so that those scholars who have analyzed serials and other items using a strictly VP analysis may be wrong and could actually have structures more like (86) or (87a) (see for example Jansen et al. (1978) and Sebba (1984c), among others). If a verb still θ-marks but is analyzed as simply a VP as in (87b) for example, then this would constitute a violation of the θ-Criterion. This would ensue because the subject of the quasi-modals would necessarily be the subject of the subordinate verb at one and the same time, thereby pertaining to two arguments.

From the evidence presented earlier, neither the structures portrayed in (86) nor (87) yet exist in SA for the quasi-modals under discussion (with the exception of o 'will'), although it is quite probable that reanalysis to something like (87c) has occurred in other creoles. Moreover, such a scenario is not unique to creoles, but has been amply documented in other languages as well. In English, for example, Lightfoot, among others (e.g. Allen (1975), Traugott (1972), Wagner (1969), etc.), notes (1979: 99) that "what we translate with modals in NE, all behave exactly like ordinary, complement-taking verbs in OE." So
there are precedents to the claims made here that sa, musu
and fu are main verbal and take S' complements.

4.2.5 Complementizer-Like fu

Complementizer-like fu is found in what appear to be
S' positions in SA (and other creoles), and primarily
because of this, it may be misinterpreted as a true
complementizer.

88) a lobi (f)u haika di ladio

he love for hear the radio

'He loves to listen-to the radio.'

In (88) above, u (i.e. reduced fu) is juxtaposed between a
lobi 'he loves' and haika di ladio 'hear the radio', so that
a COMP interpretation would be a quite natural assumption.
Indeed, this is the conclusion most often reached for FU in
English-based creoles and the FU-like formatives in other
creoles (e.g. pu 'for' in Haitian Creole which Koopman
(1980, 1982) and Koopman and Lefebvre (1981, 1982)) claim is
a complementizer). While these claims may or may not have
validity in other creoles, they certainly do not pertain to
fu in SA. As with quasi-modal fu, complementizer-like fu is
verbal (see Bickerton 1984; Byrne 1984c, in press), is main-
verbal within a finite S introduced by a COMP node and
subcategorizes for finite S' complements. In fact, quasi-
modal fu and complementizer-like fu are most probably one
and the same formative. We will first begin this discussion
with the characteristics of the S' complements of \textit{fu} and then discuss \textit{fu} itself.

4.2.5.1 Sentential Complements of Complementizer-
Like \textit{fu}. As is true for the vast majority of sentential subordinates in SA, the complements of \textit{fu} are likewise finite and can be overtly tensed. Consider (89) through (92).

89a) (*)a ke \textit{fu} e wooko \textit{a foto}\textsuperscript{15}

he want for work in Paramaribo

'He wants to work in Paramaribo.'

b) a ke \textit{fu} e bi- wooko a foto

...TNS...

'He wanted to work in Paramaribo.'

90a) a ko a wosu faa sindo a di sutuu

\textit{fu+a}

he come to house for-he sit-down in the chair

'He came to the house to sit down in the chair.'

b) a ko a wosu faa bi- sindo a di sutuu

...TNS...

'He came to the house to sit down in the chair.'

\textsuperscript{15} Some do not accept \textit{fu} 'for' with \textit{ke} 'want'. According to their reasoning, \textit{ke}, like \textit{fu}, also has an irrealsis sense in that it is uncertain whether the proposition found in a following sentential complement actually occurred or not. The presence of \textit{fu} is thereby redundant.
91a) mi hakisi en faa njan di kasi
I ask him for—he eat the cheese
'I asked him to eat the cheese.'

b) mi hakisi en faa bi–njan di kasi
...TNS...
'I asked him to eat the cheese.'

92a) a de fanondu fu di womi wooko a di wosu
it be important for the man work in the house
'It is important for the man to work in the house.'

b) a de fanondu fu di womi bi–wooko a di wosu
...TNS...
'It was important for the man to work in the house.'

In each clause following fu above, the overt TNS marker bi may appear. Now as seen previously, tense marking with bi is characteristic of finite clauses and of no nonfinite clauses (hence the difficulty in adequately translating the (b) Ss of (90) and (91) above—the best that we can do in English are readings identical to the (a) Ss without bi). We therefore conclude that, as with quasi-modal fu (see (72c)), complementizer-like fu introduces finite clauses. And with such status, as mentioned in section 4.2.4.2, the AGR element of INFL with a [+TNS] designation governs and Nominatively Case-marks the subject position. Thus the overt subject pronominals in (90) and (91) exhibit Nominative Case-marking since they are within finite clauses and are thereby governed. But what about the
ECs in (89a,b) (and by extension, the EC subjects of the finite clauses following quasi-modal fu in section 4.2.4.2)? In Byrne (1984c, 1985), it was determined that the ECs in subject position in SA are pro, and because they are always bound and controlled by a higher NP (configurationally speaking), they are pro (proximate). Let's review the reasoning.

ECs occur only in matrix-subordinate configurations since, as we saw in Chapter II, no ECs of any kind occur in sentential conjuncts. Moreover, conjuncts in SA follow a particularly strict version of Ross' Coordinate Structure Constraint; under no circumstances can a constituent be dislocated from out of such a structure. Movement from a clause thereby serves as a diagnostic to determine structural configurations; if extraction is possible to a S-initial position, then there must be a matrix-subordinate relationship. However, the ungrammaticality of dislocating constituents does not necessarily mean that conjuncts are present since Subjacency violations could easily cause such a result. Nevertheless, note in (93) and (94) that dislocation to S-initial position is grammatical from the fu-clauses in (89) and (90), thus ensuring a matrix-subordinate relationship for these strings.

93a) a foto a ke fu e wooko t
   in Paramaribo he want for work
   'It is in Paramaribo that he wants to work.'
b) naase a ke fu e wooko t
   in—where he want for work
   'Where does he want to work?'

94a) a di sutuu a ko a wosu faa sindo t
    in the chair he come to house for—he sit-down
    'It was in the chair that he came to the house to sit down.'

b) naandi a ko a wosu faa sindo t
    in—what he come to house for—he sit-down
    'What did he come to the house to sit down in?'

In relation to ECs, Chomsky (1982: 78) distinguishes
between four types: [+anaphor, -pronominal], which
 corresponds to NP-trace (trace left by an element moved to a
 θ',A'-position); [-anaphor, +pronominal] or pro as has been
 hypothesized and discussed for Romance languages where "pro-
 drop" is a common occurrence; [+anaphor, +pronominal] which
 is PRO as discussed in Chomsky (1982);16 and [-anaphor, 
 -pronominal] which is wh-trace or, in other words, a
 variable. Of these, we saw in Chapter III that there is
 only movement to θ',A'-positions in SA and there are thereby
 only variable traces in the language. Of PRO and pro, we
 are claiming that pro is predominant in SA (we will see some

16. But see Manzini (1983) for a somewhat different
taxonomy. Also along these lines, see Byrne and Sandoval
(in preparation) for some comments on a possible overt
counterpart to PRO.
instances of infinitives in the language due to loss of TNS) and that pro is only pro(prox) since it is always bound and controlled by a matrix NP (a possibility for pro which Suñer (1982a) first explored for Spanish).

Looking now at some of the principles of control in relation to pro(prox), again consider (90a), repeated here as (95) for convenience.

95) a(i) ko a wosu faa(i,j) sindo a di sutuu
   he come to house for-s/he sit-down in the chair
   'He came to the house (for him/her) to sit in the chair.'

In (95), the overt pronoun a 's/he', attached to fu (i.e. faa 'for-s/he'), is marked as being either coindexed with the matrix subject a 'he' or having disjoint reference. While coindexing with the matrix subject is acceptable to some speakers when there is an overt pronominal subject in a subordinate clause, for others it is unacceptable; only an EC in the subordinate subject position signifies coreferentiality, while an overt pronoun in that position is always disjoint in reference. We thus have the following range of judgments:

96a) a(i) ko a wosu (f)u e(i) sindo a di sutuu
    'He came to the house to sit in the chair.'

b) (*)a(i) ko a wosu faa(i) sindo a di sutuu
    'He came to the house to sit in the chair.'
c) a(i) ko a wosu faa(j) sindo a di sutuu

'He came to the house for him/her to sit in the chair.'

Group 1 of SA speakers accepts all three of the above Ss as acceptable. This means that these Saramaka accept either coreferentiality or disjoint reference when there is an overt subordinate subject, but when there is an EC subject as in (96a), only coreferentiality is possible. The second group seems to have incorporated Chomsky's (1981, 1982) Avoid Pronoun Principle and thus allow only (a) and (c) of (96); a subject EC is always coreferential with the matrix subject whereas an overt pronominal is only disjoint in reference.

From these observations, the matrix subject in (95) and (96) meets the stipulations for binding of the EC and overt subordinate subjects. From Chapter I, we noted that binding, following Chomsky (1981), has the following requirements:

97) \( a \) binds \( \beta \) iff

a) \( a \) and \( \beta \) are coindexed and

b) \( a \) c-commands \( \beta \).

Whether the subordinate subject is overt or an EC in (96a,b), coindexing takes place, thus satisfying requirement (a) of (97). For c-command, we adopted Sportiche and Aoun's (1981) definition. This is:
98) a c-commands \( \beta \) iff

\[ a \text{ is dominated by a minimally maximal category which also dominates } \beta. \]

In the discussion so far, we have concluded that the Ss in (96) have a matrix-subordinate relationship. From Bickerton (1984) and Byrne (1984d, in press), this means that they at least have the structure as in (99) (with additional details to be supplied shortly).

99)

```
S
  |   |
NP  VP
  |   |
V   PP
  |   |
a(i) ko a di wosu
```

'sindo a di sutuu'

'He came to the house to sit in the chair.'

With (99) correct in as far as it goes, then the minimal maximal category which dominates the matrix subject \( a \) 'he' is S. This same node also dominates the left branching S' node which, in turn, dominates the subordinate subject, \( a \) 'he' or \( e \). And even with more complex branching from the S' node (which there is), the matrix S would still dominate any and all subordinate constituents and structures, which includes the subject of \( \text{sindo a di sutuu} \) 'sit-down in the chair'. The matrix subject thereby c-commands the subject of the subordinate clause above. We thus conclude that \( a \)
'he' binds the subordinate subject, either a or an EC, since all the stipulations of the definition for binding are met.

Concentrating now only on the subject ECs in (96a) and (99), just as the subordinate ECs in that data are bound by a matrix subject, so too are almost all base-generated ECs in SA. That is, in the data so far analyzed here and in Chapter III (and in the language in general with only a few exceptions, so far as can be determined), whenever an EC appears, it is nearly always coindexed with, c-commanded by, and, in short, bound by a matrix subject. Given this the usual binding relationship, and since control theory deals with binding with a specific and predetermined antecedent, then a functionally adequate statement for our present purposes, given the data that we will deal with in this and the next chapter, would be that whenever a base-generated EC appears, it will be controlled by a subject in a different governing category which configurationally c-commands it. Other possible binding relations, such as object to subject coindexing as in (100), usually require an overt pronominal.

100a) di mujee(i) hakisi da  di womi(j) faa(j) go a di wenke
    the woman ask give the man for-he go to the store

100b) *di mujee(i) hakisi di womi(j) faa(j) go a di wenke

'The woman asked the man to go to the store.'
We will return to other EC coindexing possibilities later in the last part of Chapter VI.

What, then, is this base-generated EC? To answer this question, first note that a 'he' in the matrix subject position in (96a) and (98) has an independent θ-role (i.e. Agent) and is coindexed with, binds and, in short, controls the EC subject of the subordinate clause. In addition, e (i.e. the EC) is free in its governing category (S) since it is not c-commanded by a coindexed NP within this category. e must therefore be a pronominal since the above characteristics hold for this categorization and Binding Principle B states that a pronominal is free in its governing category. Also, for those who accept overt

17. According to an anonymous Linguistic Inquiry reviewer, another possibility for the subject ECs in SA is that they are null anaphors. Chomsky (1981: 229) and others (e.g. Farmer 1980, Kim 1976, Mohanan 1980, Oshima 1979) note that Japanese and Korean allow anaphors in subordinate environments which are c-commanded by and coindexed with a subject in a higher clause. For example, the anonymous LI reviewer observed that the overt Japanese anaphor zibun is "bound by subjects of dominating clauses."

ECs (but excluding PRO) could not be anaphors in SA, however, since anaphors in the language are always overt.

i) Kofi ke fu di womi(i) lesi en seei(i)
   Kofi want for the man teach him self
   'Kofi wants the man to teach himself.'

ii) a(i) go feen seei(i) bi- luku di wosu
    he go for-him self TNS-look-at the house
    'He had gone himself to look at the house.'

If an EC were present in place of the anaphors (i.e. en seei 'himself' in (i) and (ii), the result would respectively
subordinate subject pronouns coindexed with a matrix subject, we saw in (96a,b) that a 'he' and an EC are interchangeable and have the exact same reading.

There are two options to choose from among the ECs with the feature [+pronominal]. These are: PRO which additionally has the feature [+anaphor], and pro which is [-anaphor]. The distinguishing characteristic between these two EC pronouns according to Chomsky (1982: 81) is that "PRO is the EC PRO in an S-structure position ungoverned (my emphasis) at D-structure by INFL..., while pro is ... in an S-structure position governed (my emphasis) at D-structure by INFL..." Thus the major distinguishing environment for PRO or pro is whether or not a position is governed; if it is, then pro will appear (presuming an EC of course), and if not, then PRO will be the EC.

As we saw in Chapter II and section 4.2.4.2, if a clause is finite (i.e. [+TNS]), then the AGR element of INFL be either ungrammatical as in (iii) or interpreted as a non-anaphor as in (iv).

iii) *Kofi ke fu di womi lesi e
    Kofi want for the man teach

iv) a(i) go fu e(i) bi- luku di wosu
    he go for TNS-look-at the house
    'He had gone to look at the house.'

From the above data, then, we conclude that the subject ECs in tensed environments in SA are not anaphors.
(which we saw must be coexistent with TNS in SA) will govern and assign Nominative Case to the subject position and if it is an EC, then it will be pro. Alternatively, if a clause is an infinitive (i.e. [-TNS]), then the subject position will not be governed and PRO will be the EC result. Again in Chapter II, we also made the claim that all subordinate clauses in SA, with a few exceptions which have lost TNS presumably through natural change, are finite in that they can be overtly tensed. With this true as we shall see, then the vast majority of subordinate clauses in SA still have governed subject positions and if there is an EC in that position, it will necessarily be pro. Since the clauses following fu can be overtly tensed, a subject EC in one of these clauses is therefore pro and never PRO. And as observed by an anonymous Linguistic Inquiry reviewer of Byrne (1985), with this categorial designation, we should expect a Nominatively-marked pronominal, the overt corollary to pro (Chomsky 1982: 78), to sometimes appear as it does in the speech of some Saramaka such as in (96b).

pro was originally formulated by Chomsky (1981, 1982) and others (e.g. Jaeggli 1980; Rizzi 1980; Suñer 1982a,b, 1983; etc.) to explain the absence of overt subjects in the pro-drop languages (i.e. Spanish and Italian). Now pro in these languages is different from pro in SA in that in Romance languages, its content is "locally determined by the AGR element of the thematic complex ..."
That is, pro-drop languages are highly inflected and the AGR element of INFL is attached to the verb. Because of this, there is number and person (and sometimes gender) concord between the verb and a subject. One can therefore reconstruct all the pertinent information found in a pronominal from the verb morphology and this is why any S in, for example Spanish, can alternate freely between an overt subject and pro. Note (101).

101a) Juan esta llegando

Juan be (3rd person sing.) arrive
'Juan is arriving.'

b) El esta llegando

he...
'He is arriving.'

c) Esta llegando

be arrive
'He is arriving.'

The reading for (101c) is exactly the same as for (101b) and such subjectless strings (i.e. those with pro) vary indiscriminately with (101b). The reason for the free variation is because the information '3rd person' and 'singular' is incorporated along with mood and TNS in the suffix –a attached to est– 'be'. It is therefore a simple process to reconstruct the content of the EC pronominal.

18. However, the pattern does not necessarily apply
SA, on the other hand, does not have a pro-drop option since there is no subject-verb concord and, in fact, no inflectional apparatus whatsoever anywhere in the language. The presence of a [+TNS] feature in INFL might then best be looked at as co-occurring with an abstract AGR (presuming such) which is never overt as it is in the Romance Languages. Empty subject positions either in matrix or one-clause Ss as are possible in Spanish are thereby ungrammatical in SA since there is no way to reconstruct the content of such a subject.

102a) Johanesi ta-dou

  Johanesi ASP-arrive

  'Johanesi is arriving.'

b) a ta-dou

  he...

  'He is arriving.'

c) *ta-dou

in subordinate environments. Note (i) and (ii) (with the indices in parentheses).

i) Juan(i) sabe que e(i) esta llegando

  Juan know that is arriving

  'Juan knows that he (himself) is arriving.'

ii) Juan(i) sabe que el(j) esta llegando

  Juan know that he is arriving

  'Juan knows that he (someone else) is arriving.'

When an EC as in (i), the subjects of the matrix and subordinate clauses are coreferential. On the other hand, if the subordinate subject is overt, the two subjects are disjoint in reference.
The only way that noninflected languages like SA can have pro is if its semantic content is ascertained by principles other than local determination through inflection on a verb. SA thus limits pro to those positions within subordinate clauses such as in, for example, (103), a more accurate rendition of (99), where a higher NP (in a configurational sense) determines the semantic value of pro through control relations.

103) a(i) ko a wosu fu [S pro(i) sido a di he come to house for sit-down in the sutuu ]

chair

'He came to the house to sit down in the chair.'

The implications for GB theory of this analysis are threefold. First, since the element under discussion always has an antecedent in an independent θ-position outside of its governing category, then this EC is not just pro, but pro (prox(imate)). Second, the existence of pro(prox) should not be suprising if, as Chomsky (1982: 19) suggests, ECs reflect overt NPs. We find in that volume that "... pro is ... now understood to be a pure pronominal like its overt counterpart" (pp. 81-2), and that "... having or lacking an antecedent are exactly those (characteristics) of pronouns, and ... its antecedent (if any) has an independent θ-role" (p. 28). Thus, since pro is an EC, it should mirror the properties of its overt counterpart, a pure pronominal,
which includes the possibility of an antecedent with an independent θ-role. Third, since pro(prox) in SA is controlled by a matrix subject, and since Chomsky (1982: 7) claims that "control is concerned with the choice of antecedents for PRO," if the preceding analysis is correct (and that in Byrne (1984c, 1985)), then Chomsky's objective for control will have to be reformulated. A better statement may be that control is concerned with the choice of antecedents for base-generated ECs with the feature [+pronominal]. In any case, we will return to control in more depth in the last part of Chapter VI.

Looking briefly once more at the EC subjects within the complements of the quasi-modalss discussed in 4.2.4.2, it was shown in that section that the presence of an INFL node and a governed subject position naturally falls out from the possible overt tensing on verbs following fu 'for' and musu 'must' based on general principles within GB theory. The presence of an EC subject was then indicated with the neutral e in (83) and (84). Based on the previous comments, we are now in a position to determine the categorial status of e in those Ss.

Just as the EC subject position in the clauses following COMP-like fu is governed because of the possibility of overt tensing, so too is a subject position following quasi-modal fu for the same reason (see (72)). And since the determining factor for pro as opposed to PRO
is a [+TNS] designation in INFL which results in a governed subject position, then \( e \) is \( \text{pro} \) following quasi-modals. Furthermore, \( \text{pro} \) is \( \text{pro(prox)} \) (i.e. bound and controlled \( \text{pro} \)) since the concepts expressed by \( \text{fu} \) (obligation along with irreality), \( \text{musu} \) (obligation), and \( \text{sa} \) (possibility and/or probability) are so closely related to the action or state expressed by the following verb that it would be hard to imagine \( \text{pro} \) and the matrix subject being anything other than coindexed. Indeed, when I asked one informant "Who does the working in \( \text{kofimusuwooko} \) 'Kofi must work'?", he replied, a bit puzzled, that it was of course \( \text{Kofi} \). A better rendition of (83) and (84) should then be (104) below.

\[
104) [S' [S \ NP(i) INFL \{\text{sa} \} [S' \ [S \ \text{pro}(i) \ INFL \ VP ]]]]
\]

4.2.5.2 Properties of Complementizer-Like \( \text{fu} \).

Unlike quasi-modal \( \text{fu} \), none of the Saramaka worked with can copy complementizer-like \( \text{fu} \) to S-initial position.

105a) \( \text{di womi bai njanjan faa boi amanjan} \)

\( \text{the man buy food for-he cook tomorrow} \)

'\text{The man bought food for him to cook tomorrow.}'

b) \*\( \text{fu di womi bai njanjan faa boi amanjan} \)
106a) di mujee hakisi dee mii fu de njan dee
the woman ask the(pl) child for they eat the(pl)
bakuba
banana
'The woman asked the children to eat the bananas.'
b) *fu di mujee hakisi dee mii fu de njan dee bakuba

There seem to be two possible explanations for this, both presupposing that this fu too is verbal (and, in fact, may be one and the same lexical item – more on this later).

First, as noted in Chapter II and exemplified and explained in section 3.3.3, there is a developing locality constraint in SA which prevents a verb from copying across S' boundaries. If this restriction is categorical for non-matrix fu-type verbs, then the two (b) Ss above are explicable. In support of this scenario, it is curious and certainly significant that like fu, no one can copy a nonmatrix sa 'would, may, etc.' or musu 'must' to S-initial position.

107a) a tei faka musu koti di beee
he take knife must cut the bread
'He took a knife and must cut the bread.'
b) *musu a tei faka musu koti di beee

108a) de waka a matu sa-go hondi ogimbeti
they walk to jungle may go hunt evil-beast
'They walked to the jungle to perhaps hunt a jaguar.'
b) *sa de waka a matu sa-go hondi ogimbeti
In (107) and (108), musu 'must' precedes koti 'cut' in an Instrumental-type string and sa 'would, may, etc.' comes before go 'go' in a directional-type serial. We'll discuss these two structures in Chapters V and VI. But for the present, the important consideration is that neither musu nor sa may copy in COMP-initial position. If there is any similarity between these formatives and complementizer-like fu, which we will later claim that there is, then the fact that this fu cannot copy is related to a more general developing constraint and as such, neither proves nor disproves the verbal status of the item.

The second possibility is related to the reanalysis process discussed for quasi-modals. That is, just as only some SA speakers can copy quasi-modal fu (and related forms), it may be that all speakers have eradicated the process completely with complementizer-like fu. This would mean that complementizer-like fu is a bit further along in eventual reanalysis than quasi-modal fu. Now, it may be true that complementizer-like fu is undergoing change, but it is also true that if the developing constraint on verb copy applies categorically in contexts such as (105) and (106), then whether or not change is taking place would be unobservable. From this perspective, therefore, the first explanation is superior and adequately accounts for the facts.
Concerning TMA, neither the ASP particle _ta_ nor MOD _sa_ 'would, may, etc.' can precede either complementizer-like _fu_ in (109) and (110) or quasi-modal _fu_ in (111).

109a) *di womi bai njanjan ta- faa boi amanjan  
   the man buy food ASP-for-s/he cook tomorrow

b) *di mujee hakisi dee mii ta- fu de njan dee  
   the woman ask the(pl) child ASP-for they eat the
   bakuba
   banana

110a) *di womi bai njanjan sa- faa boi amanjan  
   ...MOD...

b) *di mujee hakisi dee mii sa- fu de njan dee bakuba  
   ...MOD...

111a) *a ta- fu wooko  
   he ASP-for work

b) *a sa fu wooko  
   ...MOD...

If _fu_ (of either type) is a raising verb of the _seem, appear_ class (as Koopman (p.c.) would have it), then it is not unusual that _ta_ at least cannot precede _fu_; like the (a) Ss with _ta_ in (109) through (111) above, it is also ungrammatical for continuous ASP to occur with _seem_ and _appear_.

112a) *It is seeming that John is sad.

b) *It is appearing that Mary was here.
113a) *John is seeming to be sad.

b) *Mary is appearing to have been here.

Alternatively and as mentioned in Chapter II, stative verbs in creole languages commonly resist co-occurring with ASP markers. Thus if fu (and modality markers in general) are statives, then we would not expect Ss such as (109a,b) and (11la) to be grammatical with ta.

In regard to sa 'would, may', both complementizer-like and quasi-modal fu, aside from other meanings, impart an irrealis sense to a following action (see Bickerton 1980, 1981; Byrne 1984b: 101f). Since sa also imparts doubt as to the outcome of an action, it may be that that item is excluded from co-occurring with fu for the simple reason that it would be redundant. In support of this assumption, we noted in Footnote (15) of this chapter that some Saramaka do not accept fu following ke 'want' since ke is sufficient by itself to express uncertainty as to the outcome of any sentential complement. Thus the same may be true of sa with fu.

Turning now to the TNS marker bi, just as overt tensing is possible on quasi-modal fu in (66) through (69) and on its following complement as in (72), and just as overt tensing is possible on the clauses following complementizer-like fu, so too is bi also readily prepositioned before complementizer-like fu. Consider the
overt tensing of fu in the Ss from (89) to (92) in (114) below.

114a) a ke bi- fu wooko a foto

he want TNS-for work in Paramaribo

'He wanted to work in Paramaribo (but didn't).'

b) a ko a wosu bi- faa sindo a di sutuu

he come to house TNS-for-he sit-down in the chair

'He came to the house to sit down in the chair (but didn't).'

c) mi hakisi en bi- faa njan di kasi

I ask him TNS-for-he eat the cheese

'I asked him to eat the cheese (but he didn't).'

d) a de fanondu bi- fu di womi wooko a di wosu

it be important TNS-for the man work at the house

'It was important for the man to work at the house (but he didn't).'

Notice first in (114) that with the addition of bi, a sense of an unaccomplished action as well as the import of pastness, in some sense of the word, is added to whatever meaning held without bi (to be discussed in due course). Next notice that the bi on fu above has exactly the same reading as bi on the verbs in the complement clauses in (89) through (92). While glosses do not necessarily tell us anything about the formal or semantic properties of a string, still the Saramaka worked with assured me that bi applied to the S as a whole, at least in these cases, making
it apparently immaterial to the semantics of the string where bi is placed. Nevertheless, as with the English glosses in (89) to (92), we again had difficulties in adequately capturing the sense of pastness in all clauses primarily because we must translate finite structures in SA with English infinitives. And finally, whatever the more appropriate English rendition, the fact remains that overt tensing can co-occur with complementizer-like fu, just as with quasi-modal fu; as was claimed in section 2.2, INFL cannot occur in SA before anything but verbs.

Now Muysken (1984: 204) observes, and quite rightly so, that TNS marking is not by itself "conclusive evidence for the verbal status of fu." As he additionally points out, there are many languages where TNS appears with a complementizer. Thus, and there is no argument here, Muysken's tensed complementizer would be the best analysis for complementizer-like fu if there were not considerable additional evidence which independently justifies the claim that fu is a verb in SA. Indeed, because of overt tensing and other evidence, fu in contexts such as (114) represents finite clause into and of itself.

As we saw with the finite clauses following fu, the presence of overt tensing (i.e. a [+TNS] value for INFL) assures a governed and Nominatively-marked subject position. While complementizer-like fu, like the complements of quasi-modal fu, never takes an overt subject, quasi-modal fu
itself, as observed in (68b) repeated here as (115), does take an overt subject with specific reference.

115) di womi bi- fu wooko a di bakaa wosu
    the man TNS-should work at the white-man house
    'The man should have worked at the white man's house.'

And because of the finite nature of the preceding quasi-modal *ft*, the subject position is governed and the nominatively case-marked  a 's/he/it', rather than the objective  en 'him/her/it', may replace  di womi  'the man'.

116a) a bi- fu wooko a di bakaa wosu
    he TNS-should work at the white-man house
    'He should have worked at the white man's house.'

b) *en bi-fu wooko a di bakaa wosu
    him...

Since both quasi-modal and complementizer-like *ft* are most likely one and the same lexical item as we have mentioned and will show in section 4.2.6, then complementizer-like *ft* may also take a subject with a specific referent. And like the subject of quasi-modal *ft* in (116a), the subject of complementizer-like *ft* is governed and would be  a if it were overt because of the [+TNS] feature of INFL. Moreover, the EC subject could be co-referential with a matrix subject since by the version of control presented earlier, we saw that this is the most common state of affairs for  pro(prox) in SA. Alternatively, if Koopman (p.c.) is right in considering quasi-modals as
raising verbs and if complementizer-like and quasi-modal fu are really one and the same item, then like the seem, appear class of verbs, fu (and sa 'would, may, etc.' and musu 'must') would have no selectional restrictions on a subject NP. If this analysis is correct, then the possibility at least exists that complementizer-like fu has an impersonal subject\textsuperscript{19} of the type first proposed by Taraldsen (1978) and subsequently discussed in Chomsky (1981) and Suñer (1982b). Although there is no principled way at the moment to resolve the question, the point is in any case better raised.\textsuperscript{20} Nevertheless, unlike the subjects of the finite clauses following fu which are optionally ECs for some, the subjects of complementizer-like fu are categorically pro (or identical in this respect to the subjects of the finite clauses following quasi-modal fu). As a first approximation, then, the structure of these clauses is tentatively as in (117).

117) [S NP INFL V... [S pro(prox) INFL fu [ S ... ]]]

But (117) can't be right since, as with quasi-modal fu, movement is possible from the following clause to S-

\textsuperscript{19} It should be pointed out that an impersonal pro (or PRO) does not have more than one antecedent, but just a single vague, generalized one.

\textsuperscript{20} The major pattern is still coreference with a higher subject and so this is what will be presupposed for the present.
initial position. Note the pattern from a sample of Ss from (114).

118a) a di sutuu a ko a wosu (bi-) faa sindo t
    in the chair he come to house (TNS-) for he sit-down
    'It was in the chair that he came to the house to sit
down.'

b) naandi a ko a wosu (bi-) faa sindo t
    in what...
    'What did he come to the house to sit down in?'

c) (*) sindo a ko a wosu (bi-) faa sindo a di sutuu
    'He came to the house to SIT DOWN in the chair.'

119a) di kasi mi hakisi en (bi-) faa njan t
    the cheese I ask him (TNS-) for he eat
    'It was the cheese that I asked him to eat.'

b) andi mi hakisi en (bi-) faa njan t
    what...
    'What did I ask him to eat?'

 c) (*) njan mi hakisi en (bi-) faa njan di kasi
    'I asked him to EAT the cheese.'

As concluded indirectly for quasi-modal fu in
section 4.2.4.2, there should be a COMP node following that
formative since movement in SA is COMP-to-COMP and without
such a "bridge", dislocation of constituents from the
complement clause would violate Subjacency. COMP nodes
should also precede and follow complementizer-like fu for
the same reasons, if in fact it is sentential. However,
just for argument, there is no restriction on movement in Ss with overt complementizers in some languages (e.g. English in some contexts - see section 4.1.3). And so, theoretically at least, complementizer-like fu in (118) and (119) could actually be a complementizer which allows movement (i.e. a complementizer which allows a doubly filled OMP node). This would be a possibility except for the ample data which unambiguously shows that there are landing sites for leftwardly dislocated constituents both immediately before and after complementizer-like fu.

To show that there is a landing site to the left of complementizer-like fu, we need to find a complex S with a matrix verb which cannot be said to subcategorize for any constituent moved from its complement clause. That is, to be absolutely certain that a moved constituent which occupies a COMP node following a matrix verb and preceding fu is not a result of the base-generation of that item in place, then the matrix verb should not be able to subcategorize for that item if there were no movement. This we have with ke 'want' in (120).

120a) a ke faa kisi di ogifou a matu fu+a

she want for-he catch the evil-bird in jungle

'She wants him to catch the owl in the jungle.'
b) a ke fa [a matu] a kisi di ogifou t fu + a  
she want for in jungle he catch the evil-bird  
'She wants for it to be in the jungle where he catches the owl.'

c) a ke [a matu] faa kisi di ogifou t fu+a  
she want in jungle for-he catch the evil-bird  
'She wants it to be in the jungle where he catches the owl.'

d) [a matu] a ke faa kisi di ogifou t fu+a  
in jungle she want for-he catch the evil-bird  
'It is in the jungle where she wants him to catch the owl.'

**a matu** 'in the jungle' moves cyclically through the two hypothesized COMP positions in (120b,c) until it arrives at the known S-initial COMP in (120d). In (120b), **a matu** 'in the jungle' separates **fu** 'for' from the following subject pronoun **a** 'he' and very well could be in a COMP position, especially if **fu** is verbal. Then in (120c), **a matu** continues its upward progress and positions itself before **fu**. Now **ke** 'want' either subcategorizes in SA for an object NP or a sentential complement, but not a prepositional phrase.
With a matu 'in the jungle' not possibly being a complement of ke 'want' as demonstrated by (121), then this item must either occupy a S' or S'' node. The configurational possibilities for a matu in (120b,c) are thus as in (122).

122a) a ke [S' a matu [S faa kisi di ogifou]]
   she want in jungle for—he catch the owl

b) a ke [S'' a matu [S' fu [S a kisi di ogifou]]]
   ...for....he...

c) a ke [S' a matu [S pro fu [S' [S a kisi di ogifou]]]]

(a) above is an impossible configuration since it implies either 1.) that fu, as a complementizer, is within a S node, or 2.) that fu, as a verb, shares a S node with another verb, kisi 'catch', and that the subject of that S separates these verbs. (b) is a more plausible structure except that there is no independent justification for a TOP node (i.e. S'') and certainly not for one introducing a subordinate clause. With this configuration, moreover, we would have to explain away the verbal characteristics found with fu (of which there are more to come) and reconcile them with a complementizer status. (c) offers the best alternative for adequately accommodating the data; in every instance in my very extensive corpus only one constituent can ever be dislocated to preclausal positions (which includes matrix clauses as well). The best way to explain
this fact is to simply hypothesize one empty node (i.e. a COMP) before each S. Any other analysis verges on the ad hoc. 21

21. In presenting the paradigm in (120) and the accompanying analysis during numerous talks over the past two years, an observation that keeps coming up is that the dislocated constituents immediately before and after fu 'for' such as in (120b,c) may be a result of Chomsky adjunction. Now Chomsky adjunction is a structure-building operation which makes a copy of a particular node above that node and then adjoins a particular constituent to the node copy. Such adjunction can take place either to the left or right of the copy. In a somewhat modified illustration of the process found in Akmajian and Heny (1975: 150), if A is the original dominating node and we wish to adjoin constituent a either to the right or left of A, we would then make a copy of A, with a branching either to the right (i) or left (ii) as the case may be.

i) A

       a

.......

ii) A

       a

       A

.......

If we apply Chomsky adjunction to (120b,c), this would mean that:

a) A COMP node would be copied (if we suppose that fu 'for' is a complementizer - a conclusion for which there is no evidence), with configurations as in (iii) and (iv).

iii) VP

       S'

       COMP

       a matu

       fu

or b): If fu 'for' is verbal (for which there is ample
Looking at (120) once again, consider first the acceptability of preposing items from the lowest clause to S-initial position as in (123), and then the impossibility of evidence), then the V node dominating fu would presumably be copied as in (v) and (vi).

However, there is absolutely no motivation to appeal to Chomsky adjunction as an explanation of (120b,c). For one, there is no need to use Chomsky adjunction anywhere else in the grammar. If we adopt such an analysis here, it would constitute the only instance of such in SA as far as is known. In other words, Chomsky adjunction is not a productive process in the language. Second, the explanation in this work that movement is cyclically COMP-to-COMP and that dislocated constituents may use certain COMP positions as landing sites is a productive pattern and one which repeats itself over and over in SA. Third, to study SA syntax is to study, for all intents and purposes, how verbs within finite Ss are in the process of reanalyzing to other categories. As we see in the fu analysis and as will be repeated in other chapters, most instances of serial verbs in SA (see the penultimate section of this chapter and all subsequent chapters) are still verbal and within finite Ss. They are also best looked at as being preceded by S' nodes with empty COMPs available for cyclic movement. For these reasons, there is no motivation to adopt Chomsky adjunction as a viable explanation for (120b,c) and we thereby reject it.
such movement when a matu 'in the jungle' is in either of the lower COMP positions in (124) and (125).

123a) di ogifou a ke faa kisi t a matu
the evil-bird she want for-he catch in jungle
'It is the owl that she wants him to catch in the jungle.'

b) andi a ke faa kisi t a matu
what...
'What does she want him to catch in the jungle.'

124a) *di ogifou(i) a ke fa [a matu(j)] a kisi
the owl she want for in jungle she catch
 t(i) t(j)

b) *andi(i) a ke fa [a matu(j)] a kisi t(i) t(j)

125a) *di ogifou(i) a ke [a matu(j)] faa kisi
the owl she want in jungle for-he catch
 t(i) t(j)

b) *andi(i) a ke [a matu(j)] faa kisi t(i) t(j)
what...

As we saw in Chapter III, the presence of a moved constituent in a subordinate COMP position will block either additional movement or verb copy because these nodes cannot be doubly filled in SA (but see section 4.3). Movement to S-initial position in (123) is therefore grammatical since there are no constituents already filling the supposed intersectional COMP nodes, but in (124) and (125), movement of di ogifou 'the owl' and andi 'what' to S-initial position
is blocked because \textit{a matu} 'in the jungle' fills one of the subordinate COMP nodes in each respective S.

Note now the contrast between movement from a "bare" fu-clause (i.e. a fu-clause with apparently unoccupied COMP positions) in (126) and one with \textit{di} 'when' preceding \textit{fu} in (127).

126a) a konda da di womi faa bai di gbamba a di she ask give the man for-he buy the meat at the wenke store
'She asked the man to buy the meat at the store.'

b) andi a konda da di womi faa bai t a di wenke what...
'What did she ask the man to buy at the store.'

c) naase a konda da di womi faa bai di gbamba t at-where...
'Where did she ask the man to buy the meat at?'

127a) a konda da di womi di faa bai di gbamba she ask give the man when for-he buy the meat a di wenke at the store
'She asked the man when he had to buy the meat at the store.'

b) *andi a konda da di womi di faa bai t a di wenke when...
c) *naase a konda da di womi di faa bai di gbamba t
   at-where...

If *di* 'when' is in a COMP as concluded in section 4.1.2, then an explanation for (126) and (127) is readily available. In (126), the COMP position before *fu* is unfilled and cyclic COMP-to-COMP movement is unimpeded. However, with *di* 'when' occupying the pre-*fu* COMP position in (127), movement is blocked and (127b,c) are ungrammatical. From this and the previous evidence, the conclusion that there is a COMP node preceding *fu* seems to be sufficiently motivated.

In independently justifying post-*fu* COMP (i.e. in seeking out other categories which use post-*fu* COMP position as a landing site and which would then prevent other movement or copy), consider once again movement over "bare" *fu* in (128) and then the ungrammaticality of such with the clause-initial COMP (i.e. post-*fu*) filled in (129) and (130).

128a) a ke fu di mii njan di kuku

   he want for the child eat the cookie

   'He wants the child to eat the cookie.'

b) di mii a ke fu t njan di kuku

   the child...

   'It is the child that he wants to eat the cookie.'
c) (*)njant a ke fu di mii njan di kuku
   eat...
   'He wants the child to EAT the cookie.'
d) di kuku a ke fu di mii njan t
   the cookie...
   'It is the cookie that he wants the child to eat.'

129a) a ke fu [njant [di mii njan di kuku]]
   he want for eat the child eat the cookie
   'He wants the child to EAT the cookie.'
b) *di mii a ke fu [njant [t njan di kuku]]
   the child...
c) *di kuku a ke fu [njant [di mii njan t ]]  
   the cookie...

130a) a ke fu [di mii hen [t njan di kuku]]
   ...the child HE...
   'He wants for it to be the child who eats the cookie.'
b) *njant a ke fu [di mii hen [t njan di kuku]]
   eat...
c) *di kuku(j) a ke fu [di mii hen(i) [t(i) njan t(j) ]]  
   the cookie...

In (128c), the copy of njan 'eat' is variably acceptable due to the developing constraint for verbs undergoing the process. However, in (130b) the copy of njan is ungrammatical for all due to di mii 'the child' filling post-fu COMP position (as signalled by hen 'HE' – see section
2.3.2.1), nor is the displacement of subject or object NPs or wh-forms possible under these same conditions (i.e. when something occupies a subordinate COMP node - e.g. (127b,c), (129b,c), (130b,c)).

Now note how di mii 'the child' in (131) cyclically moves to pre-fu COMP as did a matu 'in the jungle' in (124) and (125) and again blocks movement.

131a) a ke [di mii hen [pro fu [t t njan di kuku]]]

...the child HE...

'He wants the child to be the one to eat the cookie.'

b) *njan a ke [di mii hen [pro fu [t t njan di kuku]]]

...eat...

c) *di kuku(j) a ke di mii hen(i) fu [t(i) [t(i) njan

the cookie...

t(j)]

(131b), along with (124), (125), (129) and (130), not only confirms the cyclical COMP-to-COMP nature of movement and copy in SA, but also the presence of COMP nodes in pre- and post-fu positions and the configuration for fu-clauses in (122c). From this evidence, then, movement or copy to S-initial position from a fu-clause should look something like (132), with X moving from COMP-to-COMP until its final landing site is reached. In (132), the final landing site is S-initial position, although given the evidence, any other COMP position in the string should do just as well.
4.2.6 Quasi-Modal and Complementizer-Like fu and the Lexicon

As briefly mentioned previously, quasi-modal fu imparts a sense of obligation to the string it dominates. At the same time, since the concept of 'an obligation to do something' implies that an action has not yet been accomplished, then it is likewise appropriate to say that this fu also imparts an irrealis sense. Quasi-modal fu is thereby best translated with English 'should', a modality which effectively captures the two senses discussed above and one which has uniformly been used throughout this text.

With complementizer-like fu, we again find the same sense of obligation, although perhaps somewhat diminished when compared with quasi-modal fu. At the same time, it imparts an irrealis sense just as quasi-modal fu. Compare the Ss in (133).

133a) Samo go kisi di dagu
    Samo go catch the dog
    'Samo went to catch the dog (and he did).'

b) Samo go fu kisi di dagu
   ...for...
   'Samo went (with the intention (and obligation)) to catch the dog (but perhaps he didn't catch it).'
In (133a) without fu, the action of 'catching the dog' happened, but in (b) with fu, it is doubtful that the action transpired even though it was "tinged" with an element of obligation.

With the addition of TNS to fu, the further element of pastness accompanies irreality and obligation and as such, signifies that there was the obligation to do some action in the past which was not accomplished.

134) Samo go bi- fu kisi di dagu

...TNS...

'Samo went (with the intention (and obligation)) to catch the dog (but didn't).'

Looking at TNS with quasi-modal fu, the same element of pastness accompanies obligation and irreality, but here the combination of these elements does not impart doubt, but rather, that the action was in fact not accomplished.

135) Samo bi- fu kisi di dagu

Samo TNS-should catch the dog

'Samo should have caught the dog (but didn't).'

Now the meanings which apply to complementizer-like fu appear to be exactly the same as those which pertain to quasi-modal fu. In each instance obligation and irreality are present, and with the addition of TNS, they both add the dimensions of pastness and unresolved action. These concepts are easily captured with 'should have V' for quasi-modal fu, but for complementizer-like fu, the exact sense is
elusive primarily because of the great syntactic differences between English and SA. A more adequate rendition of this fu in Samo go fu kisi di dagu could be 'Samo(i) went WITH THE OBLIGATION THAT HE(i) SHOULD MAKE IT SO THAT he(i) caught the dog', and of bi-fu, or fu with tense, as 'Samo(i) went WITH THE OBLIGATION THAT HE(i) SHOULD HAVE MADE IT SO THAT he(i) caught the dog.'

In the above rather cumbersome renditions of the import of fu and bi-fu respectively, note that the elements of irreality and obligation are present as well as the co-referentiality of both the subject of fu and the following clause with the matrix subject. We concluded earlier that these subjects were pro(prox), or, in other words, a non-overt pronominal coindexed with a higher NP (see sections 4.2.4.1 and 4.2.4.2). If in fact both fus are the same lexical item, which seems likely since both their phonological form and meanings are exactly the same, then the non-appearance of an overt subject for complementizer-like fu is simply the categoricality of an EC in that context. Similarly, the nonappearance of a subject for the sentential complements of quasi-modal fu is again the categorical presence of an EC. And just as complementizer-like fu subcategorizes for S' based on Subjacency considerations (see section 4.2.4.2), it appears likely that quasi-modal fu does too.
The differential behavior of the two $\textit{fus}$, which by and large consists of BC subjects in different locations and different appropriate landing sites for displaced constituents, most probably resides in their unequal patterns of change towards the status of modal and complementizer respectively. Be that as it may, the great similarities still present with both forms (i.e. overt tensing and identical meanings, as well as other characteristics - see the appropriate sections) mitigate against those categories having yet been attained. Indeed, by the basic tenets of lexicography, if two items have the same form and identical meanings, then that is sufficient justification for considering them as one and the same. It therefore seems best to consider the two $\textit{fus}$ as one and the same item for the reasons stated and, following Jackendoff (1975), to include them within the same lexical entry, something like (136) below.

136) $\begin{array}{c}
/fu/\\
+V\\n+[NP (bi-)_ S']
\end{array}$

The above entry would include first the pronunciation of $\textit{fu}$, followed by its categorial status. Next, its syntactic features and environment are portrayed. And finally is a semantic representation which we did not include in the entry, but would look something like the meaning of $\textit{fu}$ recently presented if it were there.
Concerning other creoles, it is altogether likely that FU, or whatever cognate of FU is applicable, have reanalyzed to actual modals and complementizers. This scenario would be in keeping with the mode of change presented earlier (see (85, 86, 87)); sentential and/or verbal features are gradually eliminated until opacity occurs and reanalysis takes place. Thus with a closer analysis of other creoles, one might find a continuum of change with SA at one extreme as the more creole-like and unchanged and some of the more decreolized varieties at the other end. Such an analysis is not within the scope of this present work, but will appear in Bickerton and Byrne (forthcoming). For the present and to conclude this discussion, we'll review the implications of the greater generality that fu is serial verb.

4.2.7 fu as a Serial Verb

From the previous discussion, unlike Washabaugh's account of FU in section 4.2 but similar to Bickerton's, there are only two categorially different fus in SA: fu as a preposition performing various roles such as a possessive marker, locative, and Secondary Theme marker (see section 4.2.3); and fu as a verb which heads a VP node within a finite S. This second fu, or verbal fu, is the one that is of importance here.
SA, as mentioned in Chapter I, is like many creole and non-creole languages (e.g. some West African, South-East Asian and Papua-New Guinean languages) in that it exhibits verb serialization where verbs, or verb-like formatives, function in various roles which are normally performed in non-serializing languages (e.g. the Indo-European languages) by prepositions, COMPs, modals, and adverbs, among possibly others. In abstracting from numerous papers on the subject in Chapter I (see Footnotes (19) and (23) in that chapter), we found that these structures are usually defined as containing three basic characteristics, repeated below for convenience.

i) TMA and negation are marked only once, usually in the initial clause, but are interpreted as the same throughout.

ii) The subjects of serial verbs are phonologically-realized only in the initial clause.

iii) There are no overt markers of subordination or coordination preceding serial verbs.

Looking at verbal fu in SA in relation to feature (i), as was discussed in sections 4.2.4 and 4.2.5, both fus

22. That is, due to change (including reanalysis) an item will often be homophonous with a form which actually is a verb. See sections 4.3 and 5.3 for discussions and examples.

23. See Footnote (21) in Chapter I.
as well as their complements allow independent tensing. Yet, as one may surmise from the import of this feature, independent tensing on other than the first verb of a serial string is unusual among these languages. Possibly the only exception to this tenet among non-creole serializing languages is Yatye, a member of the Kwa subgroup of the Niger-Congo languages which is spoken in Nigeria. According to Stahlke (1970), lower verbs often exhibit either a marker of TNS agreement with the matrix verb or a copy of such marking. Now a TNS agreement marker or a copy of TNS marking is not the same as tensing independent of and different from a matrix verb as is possible in SA. Copies of tense or agreement markers simply re-establish the time matrix presented previously and what such behavior in Yatye signifies may be that of some type or version of tensed infinitives. On the other hand, TNS marking independent of the matrix signifies that the lower clause is finite and that there is a governed subject position. However, the ability to independently tense could easily be lost and when this happens, a tensed serial would change to an infinitive. This may have been what happened in other creole languages.

Next, in relation to characteristic (ii), the S' complements following quasi-modal fu have an EC subject coreferential and controlled by the overt matrix subject. Similarly, while complementizer-like fu also has a S' complement, an overt pronominal coreferential with the
matrix subject is variably grammatical since a [+pronominal] controlled EC (i.e. pro(prox)) has not yet become categorical for all speakers in this environment. However, for the S which includes complementizer-like fu itself, unlike quasi-modal fu which as a matrix verb always has an overt subject but like its sentential complement, complementizer-like fu never has an overt subject and is best looked upon for reasons stated previously as likewise having pro(prox).

In most respects, then, fu, whether quasi-modal or complementizer-like, behaves as described in characteristic (ii) for serials. Quasi-modal fu as the matrix verb has an overt subject coreferential with the EC subject of the complement; complementizer-like fu has an EC subject probably coindexed with the matrix subject (but see section 4.2.5.1 for an alternative possibility). However, the complement of this latter fu variably allows an overt bound pronominal, indicating a.) that the position is governed and b.) that serials in SA may not be entirely like the serials described above for if fu is verbal and thereby a serial, then no overt subject should be expected after it by characteristic (ii). As a matter of fact as will be shown in Chapters V and VI, just as coreferential overt subjects optionally occur for some Saramaka in the complements of complementizer-like fu, so too do overt, coreferential pronominals optionally occur in other SA serials as well.
From characteristic (iii) we find that no overt marker of subordination or coordination may separate a serial from the rest of the string. If this happens, from the implications of feature (iii), an item ceases to be a serial verb. While there is no argument here, it may be orthwhile to point out that if *di* 'when' has in fact moved from its D-structure position (see section 4.1), then *fu* in (127) would not necessarily cease being a serial verb since *di* 'when' is not base-generated in place. This latter characteristic is a distinguishing feature of subordination and coordination markers (i.e. complementizers and conjunctions), as I understand the terms (see for example Akmajian and Heny 1976: 286-97). Thus, although this is a minor point, if something is moved to a "free" COMP position preceding or following *fu*, this should not necessarily detract from a verb's status as a serial in the same way that a complementizer or conjunction does.

Nevertheless, from the evidence presented in these sections on *fu* and from the immediately preceding discussion, it appears that there is nothing extraordinary about serial structures in SA; serialization is just like other sentential complements (e.g. the complements of perception verbs discussed in Chapters II and III) and as such, adheres to the principles of θ-, binding, bounding, Case, and government theory, and all other pertinent principles, just as other complements do. Serial structures
in SA therefore do not need any special, perhaps highly marked, syntactic apparatus to explain and analyze them.

In regard to serialization in other creoles, a pattern of change could take the following scenario. With independent tensing, a clause of course has pro(prox) as subject and/or its counterpart, an overt pronominal. Then, when independent tensing is no longer permitted, the clause becomes non-finite and has PRO as a subject, the EC type co-existent with infinitives. Finally, further change leads to reanalysis much as explained in section 4.2.4.2 and illustrated with (85, 86, 87). With such change, then, it seems probable that other linguists have studied serials somewhat diminished from their original state: a finite S introduced by S'. At any rate, the mere fact that tense is lost would lead to surface forms describable in terms of serial characteristics (i) and (ii), a point to keep in mind while the next complementizer-like formative, taa 'that, say', and other serials are being discussed.

4.3 taa 'say, that'

taa 'say, that' is a reduced version of taki 'say' which results from truncating the final syllable of taki and lengthening the remaining vowel /a/. As we shall see in section 6.3, the phonological process deriving taa from taki is not unique to these items; it shares the pattern with kaa 'already' from kaba 'finish'. But unlike kaa and kaba, taa
and *taki* are homonymous at least as matrix verbs and take sentential complements.

138a) a taa di mujee bi- go a di keiki
   he say the woman TNS-go to the church
   'He said that the woman had gone to the church.'

b) a taki taa di mujee bi-go a di keiki
   he say say...
   'He said that the woman had gone to the church.'

Unlike *taki*, however, *taa* also functions as a pseudo-complementizer which introduces sentential complements, but only after *taki* as in (138b) and never *taa*.

139) *a taa taa di mujee bi- go a di keiki
   he say say the woman TNS-go to the church

Nor may *taki* supplant *taa* as a pseudo-complementizer.

140a) *a taki taki di mujee bi-go a di keiki
   b) *a taa taki di mujee bi-go a di keiki

As noted by one Saramaka, *taki* 'say' in a complementizer-like function "sounds too much like Sranan," the creole of those who remained plantation slaves in Suriname and who accept the combination *taki taki* 'say say' as in (140a).

Besides verbs of reporting as exemplified by *taki* in (138b), other verb-types which subcategorize for *taa* in a complementizer-like role is SA are perception and cognition verbs and what we have called predicate adjectives.
141a) a si taa dee sembe bi-kumutu a di wosu
he see say the(pl) person TNS-come-out from the house
'He saw that the people had come out of the house.'
b) a sabi taa di womi bi-hondi di pingo
he know say the man TNS-hunt the pig
'He knows that the man had hunted the pig.'
c) a de fanondu taa di sembe bi-wooko a matu
it be important say the person TNS-work in jungle
'It is important that the guy had worked in the jungle.'

If Ø appears in place of taa in the above Ss or (138b) with taki taa 'say say, say that', the result is either ungrammatical (142a) or contrasts in meaning (142b,c,d).

142a) *a taki Ø di mujee bi-go a di keiki
b) a si Ø dee sembe bi-kumutu a di wosu
'He had-seen the people coming out of the house.'
c) a sabi Ø di womi bi-hondi di pingo
'He knew the man hunted the pig.'
d) a de fanondu / di sembe bi-wooko a matu
'It is important. The guy had worked in the jungle.'

From (142a), it should be evident that taki 'say' strictly subcategorizes for taa 'say, that'. Ø may appear following si 'see' and sabi 'know' as in (142b,c), but when it does, a difference in meaning ensues. According to one informant, those verbs with Ø signify that the following proposition is firsthand knowledge while the same Ss with
taa signify that the proposition is true but that it is not firsthand knowledge. Finally from (142d), we see that Ø may occur only when there is a lengthy pause between clauses. This results in two distinct Ss as the gloss indicates. From (138) and (141) we also note that each clause following taa is overtly tensed with bi. These clauses, like those which fu 'for' introduces, are thus finite. And a S' node precedes since, as was shown earlier in (10) and now in (143) below, PPs and subject and object NPs can prepose and verbs copy to clause-initial position.

143a) a taki taa [S' a di keiki (hen) [S di mujee bi-go t ]]
   'He said that it was to the church that the woman had gone.'

b) a sabi taa [S' di womi hen [S t bi-hondi di pingo]]
   'He knows that it was the man who had hunted the pig.'

c) a sabi taa [S' di pingo (hen) [S di womi bi-hondi t ]]
   'He knows that it was the pig that the man had hunted.'

d) a si taa [S' kumutu [S dee sembe bi-kumutu a di wosu ]]
   'He saw that the people had COME OUT of the house.'

These same constituents may additionally dislocate or copy as the case may be to S-initial position.
144a) a di keiki (hen) [S a taki taa [S' t [S di mujee bi-go t ]]]

'It was to the church that he said the woman had gone.'

b) di womi (hen) [S a sabi taa [S' t [S t bi-hondi di pingo ]]]

'It is the man who he knows had hunted the pig.'

c) di pingo (hen) [S a sabi taa [S' t [S di womi bi-hondi t ]]]

'It is the pig that he knows the man had hunted.'

d) (*)kumutu [S a si taa [S'[S dee sembe bi-kumutu a di wosu]]

'He saw that the people had COME OUT of the house.'

As noted in Chapters II and III, subject and object NPs in SA demonstrate complete symmetry in just about all respects, including most cases of dislocation. Thus, both the subject and object NPs in (143-144b,c) acceptably prepose to clause- and S-initial position and there are no observable that-conditions. We stated that this is possible because taa in Ss such as (144) above is a verb and not a complementizer. This enables subject traces as in (144b) to be properly governed through local binding with their antecedent in COMP (as discussed in section 3.3 of Chapter III).

Turning to a di keiki 'at the church' and kumutu 'come-out', both behave as discussed for these categories in
Chapters II and III. *a di keiki* preposes in (143-144a) in its entirety and all allow a copy of *kumutu* 'come out' in (143d) in clause-initial position as expected, but only some in S-initial position as in (144d). As we saw in Chapter III, this is due to a developing constraint on verb copy limiting its application to the immediately dominating S' node. Since the constraint is not yet categorical for all speakers, some still allow a copy across S' boundaries which is reflected by the variably grammatical (144d).

This now leaves a possible S' position before *taa* to account for. Unlike (120c) and (131a) where constituents dislocate to a S' node preceding *fu* 'for', the same (including verb copy) is always ungrammatical with *taa*. (145a) *a taki [a di keiki] taa di mujee bi- go t*

he say to the church say the woman TNS-go

b) *a sabi [di womi] taa t bi- hondi di pingo*

he know the man say TNS-hunt the pig

c) *a sabi [di pingo] taa di womi bi- hondi t*

he know the pig say the man TNS-hunt

d) *a si [kumutu] taa dee sembe bi- kumutu a*

he see come-out say the people TNS-come-out from di wosu

the house

From (145), there is no empirical basis for postulating a S' position preceding *taa*, so if such a node exists, other more indirect evidence will have to suffice. Let's therefore
discuss some other characteristics of taa which have a bearing on this question.

In comparing taa with complementizer-like fu 'for', the first difference to consider is that unlike fu, the most conservative speaker allows a copy of taa in S-initial position; the other principal informants interpret (146) as two Ss as indicated in the second gloss.

146) taa a si taa de kumutu a di wosu
say he see say they come-out of the house
'He saw THAT that they came out of the house.'
'Speak! He saw that they came out of the house.'

Second, unlike fu which freely allows TNS marking but not modality or the ASP marker ta (see sections 4.2.4.1 and 4.2.5.2), with taa TNS marking is more restricted, the modality marker sa less so, but ta is similarly impossible for all. It may be that the Saramaka perceive complementizer-like taa as a stative and as previously observed, ta does not readily occur with these verbs. At any rate, only the most conservative speaker of those worked with allowed both sa 'may, would, etc.' and the TNS marker bi to precede; the others either permitted only sa or no markers at all. This range of judgments is reflected in (147).

147a) a sabi taa dee womi kumutu a di wosu
'He knows that the men came out of the house.'

b) (*)a sabi bi-taa dee womi kumutu a di wosu
'He knew that the men came out of the house.'
c) (*)a sabi sa-taa dee womi kumutu a di wosu
'He may know that the men came out of the house.'
d) *a sabi ta- taa dee womi kumutu a di wosu

...ASP...

Note that for those speakers who do not allow (147b) or (c), they have the fully grammatical alternatives in (148a,b) with identical meanings.

148a) a sa-sabi taa dee womi kumutu a di wosu
'He may know that the men came out of the house.'

b) a bi-sabi taa dee womi kumutu a di wosu
'He knew that the men came out of the house.'

For the most conservative speaker, then, taa 'say, that' is fully verbal and is within a finite S because of the possible presence of the overt TNS marker bi as in (147b). In addition, based on the discussion in section 4.2.5.1 and in Byrne (1984c, 1985, in press), the presence of bi also assures us that there is a governed subject position which must contain pro. And there should additionally be a S' node preceding taa for this speaker (which may have once been permitted as a landing site) since without one, the dislocation or copy of constituents to S-initial position in (144) would necessarily be ungrammatical; they would have to cross two S nodes without an intervening S', a violation of Subjacency. This speaker should therefore have the structure in (149).
For those speakers who no longer allow the TNS marker bi but only allow sa 'would, may, etc.', the Ss in (146) may or may not have the structure in (149). (149) with pro is contingent on the ultimate determination of modals within INFL. Specifically, the question to investigate is if the presence of a modal is sufficient for a [+TNS] designation; if it is, then these SA speakers should also have the structure in (149). Alternatively, if sa is not adequate for a [+TNS] status, taa would be an infinitive. If this is true, then a subject position for taa is ungoverned and PRO would be present (see section 4.2.5.1). In either case (i.e. whether taa is finite or not), S' should also be present for the same reasons as stated above. If taa is an infinitive for these speakers, it should then have the structure and elements of (150) (which is structurally identical to (149) with the only difference being PRO and the non-finite status of taa).

150) [S' [S a si [S' [S PRO taa [S' [S de kumutu a di wosu ]]]]]]'

Looking now at the least conservative speaker who allows no TMA markers whatsoever, there may still be other structures for taa. While this Saramaka could conceivably
consider taa to be an infinitive with a structure like (150) since there are no TMA markers and dislocation is possible as seen in (144). However, as mentioned in relation to quasi-modals in (87a,b) of this chapter, we would expect a verb undergoing reanalysis to lose the ability to θ-mark at some point. Thus if taa 'say, that' can no longer θ-mark for an external argument (presupposing pruning of a VP node) and is not dominated by a S node, then this speaker would have a structure like (151).

151) [S' [S a si [V taa [S' [S de kumutu a wosu]]]]]

'He saw that they came out of the house.'

Notice in (151) that any displaced constituents would not have to cross two consecutive S nodes so that there would be no violation of Subjacency; this structure would allow movement to S-initial position which is consistent with the judgments of this speaker as seen in (144).

While it may seem that still a third possibility for this speaker is that taa has already reanalyzed to a complementizer in Ss like (151) and is thereby no longer verbal, the extraction pattern of external and internal arguments from factive complements of predicate adjectives discussed in relation to proper government in Chapter III rules this out. First consider the reactions towards TMA marking with taa in this environment.

152a) *a de fanondu bi-taa di womi musu wooko a matu

it be important TNS-say the man must work in jungle
b) *a de fanondu ta- taa di womi musu wooko a matu
...ASP...
c) *a de fanondu sa- taa di womi musu wooko a matu
...MOD...
All Saramaka worked with judged the above Ss ungrammatical. taa 'say, that' in this environment is therefore at least not a finite verb.

Now consider these same Ss once again in relation to extraction.
153a) a de fanondu taa di womi musu wooko a matu
it be important that the man must work in jungle
'It is important that the man works in the jungle.'
b) *a de fanondu taa [di womi hen [t musu wooko a matu]]
...the man HE...
c) *a de fanondu taa [wooko [di womi musu wooko a matu]]
...work...
d) *a de fanondu taa [a matu [di womi musu wooko t ]]
...in jungle...
154a) a matu a de fanondu taa di womi musu wooko t
in jungle...
'It is in the jungle where it is important that the man must work.'
b) naase a de fanondu taa di womi musu wooko t
in-where...
c) *di womi a de fanondu taa t musu wooko a matu
the man...
d) *ambe a de fanondu taa t musu wooko a matu
   who...

e) *wooko a de fanondu taa di womi musu wooko a matu
   work...

Unlike (143) and (144) where constituents in a taa-clause
could move or copy to both clause- and S-initial position,
such is not possible for the constituents in a taa-clause
following fanondu 'important' (and other predicate
adjectives). In (153), no constituent may copy or focus to
the clause-initial COMP position. While in (154) all
Saramaka worked with may focus internal arguments such as a
matu 'in the jungle' and naase 'in where' to S-initial COMP,
they allow no subject arguments or their wh-forms to
dislocate as in (154c,d), nor do they allow a verb copy to
appear in this position as in (154e).

If we suppose first that predicate adjectives are
the entry point for reanalysis of taa as a complementizer,
then (153) is explicable. taa 'say, that' occupies the
subordinate COMP position and other constituents cannot use
it as a final landing site. Next as we noted in Chapter
III, taa as a complementizer inhibits local binding of a

24. Such reanalysis is not unique to SA or any
particular language type. Indeed, Carol Lord (1976: 188)
notes that verbs of 'saying' have commonly reanalyzed to
complementizers in a wide cross-section of languages from
around the world.
subject from its immediately dominating COMP and proper
government cannot ensue. The subject NPs and their wh-forms
thus cannot dislocate, but internal arguments whose traces
are properly governed by the main verb of the clause may as
in (154c,d). In any case, with taa a complementizer with
predicate adjectives, the structure for these Ss should be
as in (155).

155) a de fanondu [S' taa [S di'womi musu wooko a matu]]
'It is important that the man works in the jungle.'

In reviewing the structures which we have analyzed
for complementizer-like taa 'say, that', the most
conservative Saramaka unambiguously perceives this formative
as a main-verb which is contained within a finite S and
preceded by a COMP node. In this respect, these taas are
like complementizer-like and quasi-modal fu 'for' and unlike
the usual serial structures mentioned in Chapter I and
section 4.2.7 in that they are marked for TNS and modality.
Alternatively, the less conservative speakers may or may not
have the same structure depending on the nature of sa
'would, may, etc.'; if sa is not sufficient for a [+TNS]
designation, then taa is an infinitive for these speakers.
Next, the one speaker who no longer allows the TNS marker bi
nor sa to precede taa may visualize taa in the majority of
contexts as either an infinitive or, if the item has lost
the ability to Θ-mark, as simply a V. Finally, it is
evident from the extraction pattern and that-t effects that
many Saramaka have reanalyzed taa in predicate adjective contexts as an actual complementizer. In any case, because of the obvious changes that taa has undergone with the least conservative speaker and with those speakers who have reanalyzed the formative as a complementizer, these Saramaka now have serial or serial-like structures consistent with the characteristics mentioned earlier for other serializing languages.

4.4 Summary

The primary conclusion to draw from this chapter is that there are no complementizers in SA other than those limited instances of taa 'say, that' reanalysis discussed above and exemplified in (152), (153) and (154). All other apparent complementizers (including taa for many Saramaka in non-predicate adjective contexts), are best looked at as being other categories. di 'when' and ka 'where' are pronominals which prepose to COMP positions through the application of Move Alpha. biga 'because' and di 'since, because' are either prepositions (if Emonds and Baltin are correct) or subordinating conjunctions (more on this in Chapter VII), and fu 'for' and taa 'say, that' are actually serial verbs within sentential structures (with the exception of the taa mentioned above). It thereby seems a fair statement to claim that upon initial creolization, SA did not contain the category 'complementizer' and only
recently(?) have instances of such appeared in the language through reanalysis. Let's now turn to other serial verbs, but those which appear in roles which we usually associate with prepositions.
CHAPTER V

CASE-MARKING SERIALS

In non-serial languages, we often associate Case-marking (in the semantic sense of Fillmore (1968)) with specific inflectional morphology and/or with particular prepositions. The difference with serializing languages is that such roles are introduced by verbs and in SA, by verbs which for the most part constitute finite Ss. Thus, just as COMP-like fu is best looked at as constituting a main verb within a finite S, so too are the Benefactive and Instrumental (INSTR) serial strings finite Ss. The Dative serial, on the other hand, has some exception features which require special analysis. With this in mind, we will first begin this chapter with a look at INSTRs, followed by an account of Benefactive and Dative serials in part two.

5.1 Instrumentals

Fillmore (1968), as cited in Bolinger (1975: 548), defines the INSTR role as "the inanimate force or object casually involved in the action or state identified by [a] verb." In looking at structures to which this definition applies and despite the literature which raises doubts concerning the existence of serial INSTRs in SA (Grimes and
Glock 1970: 414; Glock 1972; Jansen et al. 1978: 131; Bickerton 1981: 121), my data confirms that the role is present both prepositionally and verbally. As a preposition, the INSTR is introduced by ku 'with', a form which we saw in Chapter II adheres strictly to the dislocation pattern of prepositions in the language. That is, as is shown in (81) of Chapter II and again in (1) below, INSTR ku never strands in SA (1d,e); it always accompanies its NP complement upon application of Move Alpha (1b,c).

1a) a koti di kumalu ku di faka
he cut the kumalu (a large fish) with the knife
'He cut the large fish with the knife.'
b) ku di faka a koti di kumalu
'He was with the knife that he cut the large fish.'

c) ku andi a koti di kumalu
with 'what...
'With what did he cut the large fish?'
d) *di faka a koti di kumalu ku
the knife he cut the large-fish with

e) *andi a koti di kumalu ku
what he cut the large-fish with

1. Although Morris Goodman (1985) also makes this same point, he apparently was not aware that I first made the observation in Byrne (1984c) since he does not cite the work.
As a verb, the INSTR role is introduced in the initial clause by tei 'take', a format common to many serializing languages.  

2) a tei goni sutì di pingo
   he take gun shoooc the pig
   'He shot the pig with a gun.'

That tei is a verb within the initial clause, and not an adverbial adjunct for example, is easily shown. For one, the tei-clause may stand alone as a simple S.

3) a tei goni
   he take gun
   'He took a gun.'

For another, in an INSTR serial, the tei segment of the string must always appear first, followed by the subsequent action. The reverse order is ungrammatical.

4a) *suti di pingo a tei goni
   shoot the pig he take gun
b) *a suti di pingo tei goni
   he shoot the pig take gun

If a tei goni were an adverbial, then as Emonds (1976) observes, it should be able to follow the main clause as in (4a,b) as well as precede it as in (2).

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(4a,b) are ungrammatical because they violate a strict SA strategy where the events which include a Case-marking serial must be logically ordered as if the actions were unfolding in real time. Thus, although true serials contain simultaneous actions (or at least they are interpreted that way), the actual surface structure is one of independent chronological events. Indeed, a second non-INSTR reading of (2) is one of consecutive actions, or independent events actually unfolding in real time. As consecutive actions, (2) would be interpreted as in the gloss in (5).

5) 'He took a gun and (then) shot the pig.'

Nevertheless, whether there is an INSTR or consecutive action interpretation, (2) is the only possible order since a reversal of the events as in (4a,b) would render them non-sequential and therefore nonsensical; one cannot shoot something before actually having physical possession of a gun.

Third, as discussed in Chapter II and as is characteristic only of verbs, a copy of tei may appear S-initially in both (2) and (3).

6a) tei a tei goni suti di pingo
   take he take gun shoot the pig
   'He shot the pig WITH a gun.'
b) tei a tei goni
   take he take gun
   'He TOOK a gun.'

And finally, as is also characteristic only of verbs, tei can be overtly tensed with bi.

7) a bi- tei goni suti di pingo
   he TNS-take gun shoot the pig
   'He had shot the pig with a gun.'
   'He had taken the gun and (later) shot the pig.'

From the preceding data and discussion, it should be obvious that tei is main-verbal within a finite clause. It is finite because as discussed in Chapter II, the presence of bi, which roughly signifies past before past with action verbs, leaves no doubt as to a [+TNS] designation. And further, because of its [+TNS] value, the subject a 's/he/it' is governed and Nominatively Case-marked. However, with bi preceding tei as in (7), the structure is ambiguous between an INSTR and consecutive-action reading. As an INSTR and because the actions must be simultaneous, when bi appears in the first clause of (7), it must be interpreted as applying to the second clause as well. Alternatively, for the reading expressed in the second gloss of (7), bi must be thought of as applying only to the first clause, thereby creating different time matrices for each proposition. Following the principles discussed for SA in Chapter II, a $\emptyset$ TNS marker with an action verb (which would
be the case with suti 'shoot' if bi is interpreted as not applying) roughly implies a past action. Thus with past before past in the first clause and a simple past in the second, the tensing sequence achieves the differential time scheme needed for consecutive actions.

Of the two synonymous means of introducing the INSTR case in SA (i.e. the prepositional format with ku 'with' and the tei 'take' verbal mode), ku 'with' is by far the more common in usage. This is true, I think, for two reasons. One, serial INSTR strings are often ambiguous as is (7) above, while INSTR ku never is. Two, tei implies that something was actually taken or picked up and consequently cannot be utilized when an item to function as an instrument of some sort is beyond human physical capabilities. Hence, while (8) below is grammatical from a formal standpoint, there are reservations as to its acceptability since it refers to an unlikely series of physically possible events.

8) ?Kofi bi- tei di wagi naki di mujee

Kofi TNS-take the car hit the woman

'Kofi had hit the woman with a car.'

'Kofi had taken the car and hit the woman.'

ku 'with', on the other hand, is not so restricted as we see with the completely acceptable INSTR paraphrase of (8) in (9).
9) Kofi naki di mujee ku di wagi
    Kofi hit the woman with the car
    'Kofi hit the woman with the car.'

According to Derek Bickerton (p.c.), it may have been this restriction which originally caused prepositional ku to expand from a comitative marker (see Chapter II) to an indirect agency function as in (9), and then later, to indicate direct agency as well (1b). Unfortunately, there is no evidence in my data base or in Schuchardt (1914) which might help in determining if this is what happened.

Whatever the case with INSTR ku 'with', serial INSTRs with tei 'take' in synchronic SA will be shown to contain two finite clauses. To elaborate the claim, we will analyze this serial, and in particular the second clause of the serial, in relation to the usual characteristics cited in the literature first mentioned in Chapter I and subsequently in Chapter IV. These are once again listed here for convenience:

i) TMA and negation are marked only once, usually in the initial clause, but are interpreted as the same throughout.

ii) The subjects of serial verbs are phonologically-realized only in the initial clause.

3. See Footnotes (20) and (21) in Chapter I.
iii) There are no overt markers of subordination or coordination preceding serial verbs.

The discussion will begin with TMA marking.

5.1.1 TMA Marking

If all serializing languages so far studied (see for example the references in Chapter I) permit overt TMA marking only in the initial clause of a serial string, then the INSTR in SA is either the marked exception or it represents a more basic form of serial strategy from which the others may have originated. These structures constitute finite subordinate Ss (see the fu analysis) and are therefore not simply VPs, the most common analytic approach. (See Jansen et al. (1978) and Schachter (1974) for two such VP viewpoints.)

As far as overt aspect and modality markers and their combinations with each other and with the TNS marker bi, the following are possible in SA.

10a) a tei goni ta- sutı di pingo

he take gun ASP-shoot the pig

'He took a gun and is shooting the pig.'

b) a ta- tei goni (ta-) sutı di pingo

..ASP... ...(ASP-)...  

'He is shooting a pig with a gun.'
c) a bi-tei goni (bi-) suti di pingo
   ...TNS...  ...(TNS-)...
   'He had shot the pig with a gun.'
   'He had taken a gun and (then) shot the pig.'
llla) a tei goni o- suti di pingo
   ...will...
   'He took a gun and will shoot the pig.'
b) a o-tei goni (o-)suti di pingo
   'He will shoot the pig with a gun.'
c) a bi-tei goni (bi-)o- suti di pingo
   ...TNS-will...
   'He had taken a gun and would have shot the pig.'
d) a ta- o tei goni (ta-) o- suti di pingo
   ..ASP-will...  ...(ASP-)will...
   'He will be shooting the pig with a gun.'
   'He will be taking a gun and (then) will shoot the pig.'

In (10-llla), only a consecutive-action reading is possible since tei 'take', being unmarked for TMA, is interpreted as simple past and suti 'shoot', with the ASP marker ta in (10a) and the future marker o 'will' in (llla), have present and future readings respectively. An INSTR interpretation would thereby be impossible here since as previously explained, true serials cannot be oriented within different temporal matrices, but, rather, must be considered as simultaneous.
(10-11b), for their part, are true serials and cannot be interpreted in any other way. The ASP marker \textit{ta} and \textit{o} 'will' on \textit{tei} 'take' in each respective \textit{S} must likewise apply to \textit{suti} 'shoot' (and may overtly appear). If \textit{ta} and \textit{o} did not apply, the readings would be the illogical and anomalous: '*he is taking the gun and has shot the pig' and '*he will take the gun and has shot the pig'. In (10-11c) with \textit{ta} and \textit{o} combined with the TNS marker \textit{bi}, only a consecutive-action interpretation is permissible. \textit{bi} on \textit{tei} indicates roughly past-before-past and if it applies to \textit{suti} (which it may - more on this later), then the second action would be either present or past continuous (depending on \textit{bi}) or future or irrealis past with \textit{o}, again depending on whether \textit{bi} applies or not. Finally in (1ld), \textit{ta} combines with \textit{o}. If \textit{ta} is overt or is interpreted as being present with \textit{suti}, there is an INSTR reading; with \textit{ta} not so interpreted, then consecutive actions ensue.

While the possibility of overt modality and/or ASP markers on each second clause in (10) and (11) demonstrates a serial strategy quite different from those previously studied, still the most telling evidence relating to the nature of INSTRs and other serials in SA is the behavior of the TNS marker \textit{bi}. As mentioned in Chapter II, while \textit{ta} and actual modals such as \textit{o} 'will' may be sufficient for a [+TNS] value when they are present (depending on the final determination of such particles within INFL), to be
absolutely certain that a [+TNS] feature exists, the overt presence of bi is still the best diagnostic. With this in mind, consider (12).

12a) a bi- tei peni sikifi di lete

    he TNS-take pen write the letter

    'He had written the letter with a pen.'

    'He had taken a pen and (then) wrote the letter.'

b) a tei peni bi- sikifi di lete

    ...TNS...

    'He had written the letter with a pen.'

As noted in (7), overt TNS marking (i.e. bi) on the initial verb may have two readings: that of a true serial if the particle is also thought to apply to the subsequent verb, or consecutive actions if bi does not apply. With either interpretation, this is the usual or "normal" formal state of affairs in other serializing languages; they accept TNS marking on the initial verb, but never only on the second verb as in (12b). Unlike (12a), (12b) has but one reading: that of events occurring simultaneously, at the same time. It cannot have a consecutive-action reading since the events could not possibly be interpreted as taking

4. A S syntactically identical to (12b) was mistakingly marked as ungrammatical in Byrne (1984c). This error has been rectified in subsequent papers such as Byrne (1985).
place in sequential order. With overt TNS on sikifi 'write', this action occurs in a pluperfect time sphere, while tei 'take' can only be simple past. Thus we would have the first event happening after the second, a violation of the sequential-order strategy of INSTRs and INSTR-like (i.e. consecutive-action) structures.

The only alternative left for (12b) is that of a true INSTR which, as seen from the gloss, is the appropriate reading. It may be that (12b) is used rather than (12a) because it is not ambiguous (as is (12a)) between a true INSTR and consecutive actions. Nevertheless, in addition to (12a,b), we also have the variably acceptable (13).

13) (*a bi- tei peni bi- sikifi di lete he TNS-take pen TNS-write the letter

'He had written the letter with a pen.'

What is noteworthy above is not necessarily that both verbs are undoubtedly finite (which is certainly important), but that the most conservative speaker of SA from among those worked with rejected (13). The only equivalent S-type in the literature on serialization is in Yatye (discussed in Chapter IV in relation to fu). But TNS in that language

5. A conservative speaker is one who exhibits multiple sentential features in a wide variety of serial and complement structures. These features include overt TMA marking, overt subjects or indications that a subject position is nonovertly filled, verb copy, and evidence of a S' node preceding the serial or complement clause.
with other than the initial verb in a serial string is a copy rather than being a case of independent tensing itself (see Schachter (1974)). In SA, however, TNS on other than the first verb cannot be a copy, but must constitute an autonomous [+TNS] feature since bi in (12b) for example exists independent of any such marking in the initial clause. We thus conclude that, unlike Yatye, (13) represents instances of the overt expression of the finite status of each action. And because of their finite status, the subjects of each clause must be governed and Nominatively Case-marked. This then brings us to the second general characteristic of serial structures: the overt presence of subjects only in the first clause of such strings.

5.1.2 Subjects

By the Projection Principle, Chomsky (1982:8) notes that "the θ-marking properties of each lexical item must be represented categorically at each syntactic level: at LF, S-structure, and D-structure." If Chomsky is right in this observation, then the VPs containing the verbs tei 'take' and suti 'shoot' in (2) for example θ-mark for Agent roles which configurationally translate as subjects at S- and D-Structures. And these subjects are governed and Nominatively Case-marked because of the [+TNS] value within INFL. This means that if a subject is overt and a
pronominally, it would be be a 's/he/it' in both clauses rather than the Objective en 'him/her/it'; if a subject is not overt and thereby an EC, it would be pro rather than PRO. As is discussed in section 4.2.5.1 of Chapter IV, the latter, or PRO, only exists when the subject position is ungoverned within a nonfinite clause. Since we established in the previous section that the second verb of a serial INSTR is finite (but not that it is sentential), then any non-overt subject must necessarily be pro.

Before continuing, let's first dispose of the question of the categorial status of what appears to be a series of clauses in the previous INSTR and consecutive-action examples. With an INFL position unambiguously present before each verb (because of the overt TMA markers possible in, for example, (10) through (13)), and a subject stipulated from the Projection Principle, then all of the necessary attributes of a S-unit are present. Without as yet making any claims concerning the structural relationship, both Ss should nevertheless contain categorial elements something along the lines of (14) (with further discussion and justification to follow).

14) [S a INFL tei goni [S pro INFL sutì di pìngo]

he take gun shoot the pig

'He shot the pig with a gun.'

'He took a gun and (then) shot the pig.'
There is no doubt about the subject in the initial clause above since it is overt and Nominatively Case-marked. But what about the subject of the second clause? If it never overtly appears like the proposed pro subject of COMP-like fu, then it could be that Chomsky (1982: 10) is mistaken in claiming in the Extended Projection Principle that all clauses have subjects and that the claim in this text is incorrect in saying that the gaps in what should be subject positions are pro.

In fact, Byrne (1983a, 1984c, 1985) uses serial INSTRs to best provide evidence for the existence of pro in SA. This was done for the simple reason that alongside EC subjects in the second clause of a INSTR string, overt pronominals also optionally appear, at least among the most conservative speakers. Note (15).

15) a(i) tei goni (a(i)) suti di pingo
   he take gun he shoot the pig
   'He shot the pig with a gun.'
   'He took a gun and (then) shot the pig.'

Since pronominals are the overt counterparts of pro, then according to an anonymous reviewer of Byrne (1985), an overt pronominal is theoretically at least not excluded from appearing in place of pro. Not only does one appear as in (15) above, but it is Nominatively Case-marked which ensures that the clause is finite and the subject position is governed. In addition, because the two subjects in (14) are
coreferential\(^6\) (as indicated by (i)) exactly like the initial and EC subjects in INSTR and other SA serials (but see Footnote (19) in Chapter IV and the discussion in section 4.2.5.2), then an EC subject in the above (presumably) subordinate environment (and similar environments in other serials and what we might consider "normal" complement structures) is pro (prox(imate)).

Besides (15), the most conservative speakers of SA also accept (b) of (16) and (18) as well as the categorically grammatical (17) and (a) of (16) and (18).

16a) Samo an tei gon1 suti di pingo
    Samo neg take gun shoot the pig
    'Samo didn't shoot the pig with a gun.'
    'Samo didn't take a gun and (then) shoot the pig.'

b) (*)Samo tei goni an suti di pingo
    ...neg...
    'Samo didn't shoot the pig with a gun.'
    'Samo took a gun but (then) didn't shoot the pig.'

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6. A still unresolved question is why there is coreferentiality with overt pronominals. Chomsky (1981) observes that the basic characteristic of pronominals is disjoint reference. We will consider the question at the end of Chapter VI.
17) an tei goni sutì di pingo
   a+ an
   he-neg...
   'He didn't shoot the pig with a gun.'
   'He didn't take a gun and (then) shoot the pig.'

18a) ma(n) tei di faka kotì di fisi
    mi+an
    I-neg take the knife cut the fish
    'I didn't cut the fish with the knife.'
    'I didn't take the knife and (then) cut the fish.'

b) (*)ma(n) tei di faka an kotì di fisi
   I-neg...    ...neg...
   'I didn't cut the fish with the knife.'
   'I didn't take the knife and (then) didn't cut the fish.'

Note first in the (a) and (b) Ss of (16) that there is a difference in meaning, however subtle, based on the placement on an. In (a), the negative particle in the first clause implies that the person never had possession of a gun and so could not shoot the pig, while in (b), the individual had a gun but decided not to shoot. This contrast implies that there are two distinct propositions in INSTR and INSTR-like structures, at least in SA, despite claims to the contrary (e.g. Muysken 1984). Next, observe that the negative particle an follows a subject NP in a S. When the subject is an R-expression as in (16a) or an EC (16-18b),
then an maintains its phonological integrity (i.e. there is no assimilation). However, when a subject is an overt pronominal as in (17) and the (a) Ss of (16) and (18), the /a/ of an either assimilates the vowel of the preceding pronominal (e.g. a + an 'he + not' in (17) = an 'he-not'; mi + an 'I + not' in (18a) = ma(n) 'I-not'), or if there is no assimilation, then the morpheme boundary between the subject and an simply deletes as in (19) below.

19a) ia(n) tei goni
    i + an
    you(sg)-neg. take gun
    'You didn't take a gun.'

b) ua(n) tei goni
    u + an
    we-neg. take gun
    'We didn't take a gun.'

c) dea(n) tei goni
    de + an
    they-neg. take gun
    'They didn't take a gun.'

The importance of the negative particle an is that it has itself been derived from the base form na 'neg'. na appears when there is no pleonastic pronoun or θ-marked external role (whether overt or not) preceding. That is, it occurs in subjectless environments such as before some predicate adjectives which do not follow pleonastic pronouns.
as in (20a) (but not (22c)), when an NP rather than a S is being negated (20b), or in imperative contexts (20c), but never following a subject (21, 22, 23) whether pleonastic or not (22a,b).

20a) na tuu
neg true
'That isn't true.'

b) na wan soni ta-pasa (Hancock 1985)
neg one thing ASP-pass
'Nothing's happening.'

c) na mbei a waka
neg make he walk
'Don't make him walk.'

21a) *Samo na tei goni suti di pingo
Samo neg take gun shoot the pig
b) *Samo tei goni na suti di pingo
...neg...

22a) *a na tei goni suti di pingo
he neg...

b) *a na de fanondu taa Samo suti di pingo
it neg be important that Samo shoot the pig
c) an de fanondu taa Samo suti di pingo
it+neg...
'It's not important that Samo shot the pig.'

23a) *mi na tei di faka koti di fisi
I neg take the knife cut the fish
b) *mi tei di faka na koti di fisi
   ...neg...

With the differences in the permissible environments associated with an and na in (16) through (23), it should be evident that when negation is allowed preverbally and when that form is an, then its presence precludes either an overt or EC subject. We thereby have further proof that there are EC subjects in the second clause of a SA serial INSTR and that these clauses are under an S node rather than a VP.

Also pertinent to a sentential rather than a VP analysis of serial strings are the θ-marking properties of each verb within an INSTR or INSTR-like structure. As previously mentioned in regard to the Projection Principle, each θ-marked item must be represented categorially at each level of grammar. If this is correct and with each clause in an INSTR string containing an Agent and a Theme, then these θ-roles should configurationally translate as a subject and object respectively. The subject (i.e. Agent) of the first clause and the objects (i.e. Themes) of both in, for example, (24a,b) below are easily identified because they are overt.

24a) Samo tei goni sutì di pingo
    Samo take gun shoot the pig
    'Samo shot the pig with a gun.'
    'Samo took a gun and shot the pig.'
b) mi tei faka koti di fisi

I take knife cut the fish

'I cut the fish with a knife.'

'I took a knife and (then) cut the fish.'

However, since koti 'cut' and suti 'shoot' above θ-mark for Agents, then if they are not overt (as is true above and which is the usual state of affairs for the Agent role in the second clause of an INSTR), an EC must fill the Agent/subject NP slot. In this way, a non-overt subject at PF (and other pertinent levels of grammar) will have a categorial representation and not run afoul of the Projection Principle. Thus a serial INSTR (and INSTR-like structures) in SA must consist of two separate S nodes and cannot simply be a S followed by a VP (i.e. [NP INFL VP [VP]]).

From a somewhat different perspective, if each second clause in (a) and (b) of (24) was a VP as illustrated in (25) below, then each string would additionally run afoul of the θ-Criterion (Chomsky 1981: 139; 1982: 6).

25a) Samo tei goni [VP suti di pingo]

Samo take gun shoot the pig

b) mi tei faka [VP koti di fisi]

I take knife cut the fish

As explained in Chapters I and IV, by the θ-Criterion, we mean that each θ-position is uniquely assigned one and only one role which, in turn, is assigned to one argument. Since
suti and koti above in the bracketed VPs θ-mark for external roles (which translate as subjects at the level of argument structure), but since the VPs in (25a,b) have no subject nodes, then not only would suti 'shoot' and koti 'cut' have to assign Agent roles to same and mi 'I' respectively in order to comply with the Projection Principle, but also tei 'take' in each S would also do so. This would mean that one argument in each string, the overt subject of the initial clause, would have two θ-roles, a violation of the θ-Criterion. This violation affords us further evidence for assuming that an INSTR (and any serial for that matter if it has not reanalyzed to some other category) cannot contain merely a VP if the verb which it contains still θ-marks.

From the possibility of independent tensing in all clauses of an INSTR string, the appearance of an overt subject pronominal in the second clause, the behavior of the an negative particle, and from the principles of θ-theory, there should be no doubt that the second verb of each INSTR string is within a finite S in SA. Furthermore, given these facts, it should also be obvious how a finite clause (as the second clause of an INSTR) can lose its [+TNS] feature and become an infinitive. Moreover, because an overt coindexed pronoun is redundant since its value is determined by other principles, namely binding and control (see Chapters IV and VI), and because of the Avoid Pronoun Principle (Chomsky 1981: 65, 1982: 26), pro becomes categorical in the
second clause of an INSTR while the clause itself remains finite, but changes to PRO when the [+TNS] feature erodes to [-TNS]. Now if this progression is correct, then like the pro subject claimed for COMP-like fu, the second clause of INSTRs has almost reached the first stage of change with pro categorical for many speakers. For others, of course, an overt pronominal may still occasionally occur.

5.1.3 Instrumentals and S'

By the third general characteristic of serialization, there are no overt markers of coordination or subordination within a serial string. From the INSTRs so far looked at, this certainly seems to be true. In any case, from the discussion of subordination and coordination in Chapter II, we saw that with sentential coordinates in SA, there is always an overt marker of such situated between the two clauses. In addition, there is no gapping nor ellision upon identity in the language, so that subjects and strictly subcategorized complements are always present. Compare the coordinate structure in (26) with the INSTR in (27).

26) di mii tei di pau hen a naki di dagu
the child take the stick and he hit the dog
'The child took the stick and hit the dog.'

27a) di mii tei di pau naki di dagu
'The child hit the dog with the stick.'
b) *di mii tei di goni hen suti di pingo
...and...

In (26), the overt conjunction hen 'and' intervenes between two full clauses (without ECs). An INSTR, on the other hand, is perfectly grammatical with an EC subject as shown repeatedly throughout this section; control and binding relations, which appear not to apply over a conjunct barrier, determine its semantic value. Moreover, as in (27b), a coordination marker cannot intervene between the two clauses of one of these structures.

Also distinguishing INSTRs from conjuncts is movement. As additionally noted in Chapter II, dislocation to S-initial position from within sentential conjuncts is ungrammatical, while the same is not true of INSTR or INSTR-like structures. Consider movement and copy from (26) and (27a) in (28) and (29) below.

28a) *di dagu di mii tei di pau hen a naki t
the dog the child take the stick and he hit
b) *andi di mii tei di pau hen a naki t
what...

c) *naki di mii tei di pau hen a naki di dagu
hit... ...hit...
d) *di pau di mii tei t hen a naki di dagu
the stick...
e) *andi di mii tei t hen a naki di dagu
what...
29a) di dagu di mii tei di pau naki t
    'It was the dog that the child hit with the stick.' 

b) andi di mii tei di pau naki t
    'What did the child hit with the stick?'

c) (*)naki di mii tei di pau naki di dagu
    'The child HIT the dog with the stick.'

d) di pau di mii tei t naki di dagu
    'It was the stick that the child hit the dog with.'

e) andi di mii tei t naki di dagu
    'What did the child hit the dog with?'

The contrast between (28) and (29) is conclusive; if serial INSTRs were conjuncts, extraction or copy of constituents would be uniformly ungrammatical. Since wh- and NP-movement (in the wh sense) is acceptable and verb copy is variably grammatical from the second clause (which is what one should expect given the pattern for verbs in Chapters II and III), and since the pattern would be exactly the same with any acceptable combination of TMA markers, then the only viable conclusion is that INSTRs and INSTR-like structures constitute a matrix-subordinate relationship which have, as a first approximation, a configuration like (30).
'The child hit the dog with the stick.'

'The child took the stick and (then) hit the dog.'

The problem with (30) is that with no subordinate COMP node to which dislocated constituents could cyclically move, they would have to cross two S nodes which would be a violation of Subjacency (see Chapter III). Yet, there is no independent motivation to assume such a node since even if serial characteristics (i) and (ii) mentioned in section 5.1 do not apply to SA INSTRs, they do strictly adhere to characteristic (iii). That is, as seen in (26) and (27), no coordination marker may intervene nor may a subordination marker introduce the second clause. The formatives which perhaps come closest to subordination markers (i.e. COMPs) in SA are dislocated constituents which may "land" in a subordinate S' position. Among these are ka 'where' and di 'when' which we analyzed in section 4.1 of the previous chapter. However, when either of these preposes to a subordinate S' position, an INSTR reading is no longer possible. Consider (31) and (32).
31a) di mii bi-tei di pau di a bi-ta-naki
the child TNS-take the stick when he TNS-ASP-hit
di dagu 7
the dog
'The child had taken the stick when he was hitting the
dog.'

b) di mii bi-tei di pau di bi-ta-naki
the child TNS-take the stick that TNS-ASP hit
di dagu
the dog
'The child had taken the stick that was hitting the
dog.'

7. The difference in meaning and surface form of
(31a,b) resides in the fact that the nonovert subject of the
relative clause in (31b) is coindexed with the singular
relativizer di which, in turn, is coindexed with the NP head
(assuming accessibility - see Footnote (4) of Chapter IV).
The subject of the subordinate clause in (31a), on
the other hand, does not have a nonovert option since its
value would simply not be known if it were an EC. di 'when'
is a preposed temporal pronominal (see section 4.1.2 of
Chapter IV) and there is thereby no coindexing with the
object of the matrix. The subject must therefore overtly
appear in (31a) since its value would not otherwise be
known.

As a corollary to these observations, it is
interesting to note that there is an added motivation for
the EC subject in (31b). If the pronominal were not an EC
and thereby overt, (31a,b) would have identical surface
forms and ambiguity would result between the two structures.
c) di mii bi-tei di pau di a bi- naki di dagu
    ...TNS... ...he TNS...
    'The child had taken the stick with which he had hit
    the dog on a previous occasion.'

32a) di mii bi-tei di pau ka a bi- ta- naki di dagu
    ...where he TNS-ASP...
    'The child had taken the stick where he was hitting the
dog.'

b) *di mii bi-tei di pau ka bi- ta- naki di dagu
    ...where TNS-ASP...

c) *di mii bi-tei di pau ka a bi- naki di dagu
    ...where he TNS...

With di 'when' and ka 'where' present, the time-
frame necessarily changes from identical markings (or the
interpretation of such needed for an INSTR reading) to a
differential time scheme, with the first clause in (a) of
(31) and (32) being prior to the second because of the
nature of the actions (e.g. someone can't hit a dog before
taking a stick). With identical temporal matrices as in the
(c) Ss above, the result is ungrammatical because it is
impossible to perform consecutive-type actions at the same
moment. Also ungrammatical is (32b) without an overt
pronominal in the subject position of the ka-clause. Since
the actions are independent events and are not closely tied
semantically as are INSTRs, then as a part of this
independence is the possibility that the subjects are
disjoint in reference (i.e. physically different Agents for each respective action). If there was an EC subject as in (32b), by the principles of control briefly discussed in Chapter IV, only coreferential subjects would be possible and the independent nature of the two clauses would be correspondingly affected. Finally, (31b) does appear with a subordinate EC subject, but this clause does not really pertain to the discussion because it is interpreted as a relative (see Footnote (7) above).

With true INSTRs, however, nothing may intervene between the clauses. Hence unlike both taa 'say' and COMP-like fu 'for' which permit constituents to dislocate to contiguous COMP positions (see Chapter IV), but like quasi-modal fu which allows no extracted items immediately before and after, nothing can use the lower COMP position between INSTR clauses as a final landing site. Note the pattern.

33a) a tei wan matsau kii di hogi tatai a matu

he take an ax kill the evil snake in jungle

'He killed a bushmaster snake in the jungle with an ax.'

b) *a tei wan matsau di hogi tatai kii a matu

...the evil snake...

c) *a tei wan matsau andi kii a matu

...what...

d) *a tei wan matsau kii kii di hogi tatai a matu

...kill...
34a) a tei wan matsau a matu kii di hogi tatai
    'he took an ax to the jungle to kill the bushmaster snake.'

b) *a tei wan matsau naase kii di hogi tatai
    ...in-where...

c) a tei wan matsau naase a kii di hogi tatai
    'He took an ax to where he killed the bushmaster snake.'

In (33b,c,d), we see that neither NPs, wh-forms, nor verb copies can dislocate to inter-clausal position, but in (34a,c), it appears at first glance that PPs may do so. However, upon closer examination, it becomes evident that a matu 'in the jungle' is base-generated; it is in the proper position in the matrix clause for such constituents.

35) a tei wan matsau a matu
    'He took an ax in the jungle.'

(34c) likewise appears promising until one notes that an overt subject is necessary (34b) and that the S as a whole no longer contains an INSTR role. With naase 'in-where' in inter-clausal position, it forms a structure identical to an indirect-type question (see (9) of Chapter II). There is therefore no direct proof that INSTRs themselves have a subordinate S' node, even though somewhat similar Ss in (31), (33) and (34) do.

There is, nevertheless, sufficient indirect proof as with the raa analysis in Chapter IV to substantiate a
subordinate COMP position. For one, finite clauses are usually introduced by S' rather than just S. And two, if there were not a subordinate COMP position, then the dislocation of constituents from the subordinate clauses in (29) would be ungrammatical. As we saw in Chapter III, S is a bounding node in SA. Thus without a S' position, any movement would necessarily involve crossing two S nodes, a violation of Subjacency. We therefore conclude that the structure of serial INSTRs in SA is as in (36) and not as in (30).

36)

```
S'   
|    |
COMP S    
|    |
NP VP    
|    |
  V NP S'  
  |    |
  COMP S  
  |    |
  NP   VP
       |
  a tei pau pro naki di dagu

'He hit the dog with a stick.'
```

With the above structure, dislocated constituents in (29) now have adequate means to cyclically "escape" over the two S nodes. However, the lower COMP cannot serve as a final landing site, probably because, as with quasi-modals (i.e. fu 'have-to', sa 'may, can, etc.', musu 'must') and their sentential complements, INSTR clauses are so interrelated semantically that to separate them in any way
would be for them to lose their import. Also pertinent is the island nature of a filled COMP node and the impossibility of binding across such an island. If an overt pronominal were then inserted under these conditions, the two subjects could be disjoint in reference. In either of these cases with a filled COMP node, an INSTR reading should be impossible. Turning now to Datives and Benefactives, in some respects we find a pattern similar to serial INSTRs.

5.2 Benefactives and Datives

As discussed in Byrne (1982b), the Dative and Benefactive cases in SA are generally introduced by dá 'give' as in (37) and (38), a form homophonous with main-verbal dá 'give', also in (37), and equative copula dá 'be' in (39).

37) a dá di moni dá di mujee
   he give the money give the woman
   'He gave the money for the woman.'

38) a sei di wosu dá di womi
   he sell the house give the man
   'He sold the house for the man.'
   'He sold the house to the man.'

39) a dá Faansì(ma)
   he be French(man)
   'He is a Frenchman.'
Observe first in the above data that dá 'give' sometimes has only a Benefactive reading as in (37), but in (38), it can be interpreted as either a Dative or Benefactive marker. Also observe that in each of the above dá-forms a stress mark appears. These are in fact tone markers which distinguish between high and low levels, the extent of these suprasegmentals in SA (Voorhoeve 1959: 437; 1961: 146).

For the purposes of this work and following De Groot (1981: 22) and Rountree and Glock (1982: 161), tone will differentiate between what appears to be verbal forms of dá 'give, be' as in (37) through (39) and what I will call conjunctive, nonverbal da 'then' with low tone. The importance of making this distinction here is that conjunctive da (with low tone) introduces clauses in an apparent S-initial position and may be confused with some form of base-generated or dá 'give' copy. Note the contrast in (40).

40a) dá a dá di womi di wosu
   give he give the man the house
   'He GAVE the man the house.'

b) da a dá di womi di wosu
   then...
   'Then he gave the man the house.'

The only difference in the above Ss is the tone level on the initial formatives; there is high tone with verbal dá 'give' in (40a) and low tone with conjunctive da
'then' in (40b). Thus, the two Ss are sufficiently similar so that a misinterpretation could easily ensue if one is not careful in analysis and in interpreting tone. Henceforth, to avoid confusion, we will appropriately mark all instances of dá 'give' with high tone.

Another distinguishing feature which should be mentioned, but this time between main-verbal dá 'give' and dá Dative/Benefactive (and consecutive-action dá as we shall see later in this section), is that dá 'give' θ-marks for Goal and Theme roles and strictly subcategorizes for two arguments, either two NPs or a NP and a S', but Dative and Benefactive dá only θ-marks for a Goal and subcategorizes for a single NP. This means that matrix dá governs its NP arguments (see Chapter III) unless another governor such as dá Dative/Benefactive intervenes. And as far as Case-marking, both dá 'give' and dá Dative/Benefactive do so to the contiguous arguments they subcategorize for and govern (more on this shortly). Compare now main-verbal dá 'give' in (41) (repeated from (37)) with Dative or Benefactive dá in (42) (repeated from (38)).

41a) a dá di moni dá di womi
   he give the money give the man
   'He gave the money for the man.'

   b) a dá di womi di moni
   he gave the man the money
   'He gave the money to the man.'
c) *a dá di moni

d) *a dá di womi

e) *a dá dá di womi

42) a sei di wosu dá di womi

he sell the house give the man

'He sold the house for the man.'

'He sold the house to the man.'

In (41a), we find a NP and a Benefactive S' clause (to be discussed and justified later in the section) following dá 'give', while in (41b), there are two NPs. Then as we see in (41c,d,e), the elimination of any one of the arguments renders the S ungrammatical. In comparison, we find in (42) that with either Dative or Benefactive dá ((42) is ambiguous between the two), only one argument is necessary. There are at least two plausible explanations for this divergency.

One possibility is that dá, whether Dative or Benefactive, is not the same as main verb dá in (41a,b) for example. This Dative or Benefactive dá would then strictly subcategorize only for a single argument, but one which is selected with a [+human], or perhaps a [+animate] feature. The second possibility is that not strictly subcategorizing for two arguments is the first change on the road towards reanalysis. In either case with the data currently available, there is no principled way to determine which is the correct explanation (or if both are right - that is, because of change, there may now be two distinct verbal dás,
aside from copular dá, whereas previously there may have been only one).

From still another point of contrast, in making a cursory comparison of Dative and Benefactive serials as represented by (42) with the INSTRs in section 5.1, one rather obvious difference becomes evident: in serial INSTRs, the Case-marking INSTR verb, tei 'take', is in the matrix clause, while in Dative and Benefactive serials, the Case-assigning verb, dá, follows the initial clause. From these differences, we might expect that the matrix tei 'take' clause of INSTRs would retain more sentential features longer than the non-matrix Datives and Benefactives. In perusing the literature (e.g. Lord (1973, 1976), and especially Givón (1975: Footnote 38)), such an observation seems sound since these Dative and Benefactive serials are usually found in the same surface positions as other structural types such as prepositional phrases and are often best analyzed as having changed or are in the process of changing towards that category. In the forthcoming analysis, these observations will generally be substantiated. That is, while Benefactive serials are still finite clauses which share many of the sentential features that fu 'for' and INSTRs demonstrated, Datives have largely lost most of these features and are best looked at somewhat like taa 'say, that'.
Finally, concerning the sententiality of Benefactives and previous structures such as the INSTRs and fu, so far we have looked at serials from the point of view of the negative characteristics developed for other serializing languages, while the analyses have shown that such traits often do not apply to SA. It would be better, then, to dismiss these negative features once and for all and to positively reorient the study of serialization based on the preponderance of sentential attributes within a given structure. From the SA data so far seen, these attributes include at least the following:

i) Overt TMA markers (but especially TNS).

ii) Overt or EC subjects.

iii) Overtly filled landing sites in possible COMP positions.

From the perspective of the above features, what we have called verb serials for so long are really not unique, highly marked structures at all, but as originally noted for fu 'for' in Chapter IV, are actually no different from "normal" sentential complements and can be best looked at from this approach, at least before substantial change. That is, from the generalizations and principles such as θ-theory, government, binding, control, ECs and bounding theory found in a GB-type grammar, there are no other special analytic tools needed to synchronically explain most SA serial configurations. With these thoughts in mind,
then, we will begin the next section with a look at the Benefactive role.

5.2.1 Benefactives

As exemplified in (42) and in (43) and (44) below, \textit{dá} always introduces the Benefactive role in SA.

43) \textit{a tseen ko dá di womi} \\
\hspace{1em} tsa + en ko \\
he carry-it come give the man \\
'He brought it for the man.'

44) Kofi \textit{bai soni dá di mujee} \\
Kofi buy something give the woman \\
'Kofi bought something for the woman.'

In this function and as is appropriate for verbs, \textit{dá} may sometimes) copy to S-initial position.

45) \textit{dá a tseen ko dá di womi} \\
\hspace{1em} give he carry-it come give the man \\
'He brought it FOR the man.'

The term 'sometimes' appears above because only the most conservative speaker of those worked with allows a copy of \textit{dá} Benefactive and then only variably. Thus (45) is grammatical for him but not (46).

46) *\textit{dá Kofi bai soni dá di mujee} \\
\hspace{1em} give Kofi buy something give the woman \\
Nevertheless, with the copies of \textit{dá} in (45) (and (46)) having high tone which is the appropriate pitch level for
verbs, then there is no doubt that this da (in (45)) is a copy and is not da 'then' with low tone. If this second da, or da 'then', appeared in (45) and (46), the two Ss would be grammatical and have quite different interpretations.

47a) da a tseen ko da di womi

then he carry-it come give the man

'Then he brought it for the man.'

b) da Kofi bai soni da di mujee

then Kofi buy something give the woman

'Then Kofi bought something for the woman.'

Like INSTR serials and fu 'for', overt tensing of da Benefactive is also possible for all of the SA speakers worked with.

48a) Kofi bi- bai soni da di mujee

Kofi TNS-buy something give the woman

'Kofi had bought something for the woman.'

b) Kofi bai soni bi- da di mujee

...TNS...

'Kofi had bought something for the woman.'

c) Kofi bi- bai soni bi- da di mujee

...TNS... ...TNS...

'Kofi had bought something for the woman.'

49a) a bi- tseen ko da di womi

he TNS- carry-it come give the man

'He had brought it for the man.'
b) a tseen ko bi- dá di womi

...TNS...

'He had brought it for the man.'

c) a bi- tseen ko bi- dá di womi

...TNS... ...TNS...

'He had brought it for the man.'

Whether the TNS marker bi appears only with the first verb (bai 'buy' (48a); tsa 'carry' (49a)), with the second (dá 'give' (48-49b)), or with both (48-49c), the reading remains the same: that of a past-before-past, or pluperfect tense orientation for the string as a whole. With this the case, a Benefactive reading is possible for dá with the placement of bi on either or both verbs since, as with INSTR, the propositions are closely connected and the same time marking (or the interpretation of such) must be applicable to both.

However, with other than the TNS marker bi accompanying dá, a Benefactive reading no longer is possible and a consecutive-action interpretation replaces it.

50) Kofi bai soni ta- dá di mujee

Kofi buy something ASP-give the woman

'Kofi bought something and is giving (it) to the woman.'

51) (*)Kofi bai di buku sa- dá di mii

Kofi buy the book MOD-give the child

'Kofi bought the book and may give (it) to the child.'

With the ASP marker ta in (50), dá is orientated towards present time, while a Ø marker with bai 'buy', as discussed
in Chapter II, signifies roughly past time for action verbs. Thus the two verbs in (50) have differential time matrices, with the first action preceding the second, and the only feasible interpretation is that of consecutive actions. 

*sa* 'may, can, etc.' with *dá* also interrupts the temporal cohesiveness needed for a Benefactive and the result is again that of consecutive actions. However, unlike (50), (51) is variably grammatical; for some reason not yet determined, only those speakers who apparently have reanalyzed *sa* as a true modal find (51) acceptable. As discussed in the *fu* section of Chapter IV, *sa* variably copies. For those Saramaka who couldn't copy *sa*, we surmised that the item was now a true modal. What is interesting here is that it is just those speakers who wouldn't allow such copy who may use *sa* to mark *dá*; for the ones who did allow a copy of *sa*, (51) is ungrammatical.

Whatever the final analysis of the above pattern with *sa* is, the fact that *dá* Benefactive, like *fu* and the second clause of serial INSTRs, can be overtly and independently tensed with *bi* is sufficient, along with θ-theory (see the earlier INSTR section), to consider *dá* a verb within a finite clause (dominated of course by S). And although no subject ever overtly appears with *dá*, there should be little doubt about its existence once we consider the behavior of the negative particles in (52) and (53) below.
52a) Kofi bai di buku an dá di mii
   Kofi buy the book neg. give the child
   'Kofi bought the book, but didn't give (it) to the child.'

b) *Kofi bai di buku na dá di mii
   ...neg...

53a) a tseen ko an dá di mujee
   he carry-it come neg. give the woman
   'He brought it, but didn't give (it) to the woman.'

b) *a tseen ko na dá di mujee
   ...neg...

As demonstrated earlier with INSTRs, the negative marker an appears whenever there is either a θ-marked external role (whether overt or not at the level of argument structure) or a pleonastic pronoun preceding a verb, and na 'neg.' when there is neither of the two. Since an and not na is grammatical before dá in (52) and (53) above, then there must be an EC subject. And because the dá-clause has a [+TNS] designation due to the possibility of the overt appearance of bi, it thereby has a governed subject position. Thus, like the subjects of COMP-like fu and the second clause of serial INSTRs, the subject of dá Benefactive must be pro.

Concerning the structural configuration of Benefactives, as with the other serials discussed, they are involved in a matrix-subordinate relationship. Consistent
with this configuration, Benefactives contrast with coordinate Ss in that the former allows movement to S-initial position as in (54) and (55), while the latter does not (56, 57).

54a) di mii Kofi bai di buku dá t
   the child Kofi buy the book give
   'It was the child who Kofi bought the book for.'

b) ambe Kofi bai di buku dá t
   who...
   'Who did Kofi buy the book for?'

55a) di mujee a tseen ko dá t
     tsa+en
     the woman he carry-it come give
     'It was the woman who he brought it for.'

b) ambe a tseen ko dá t
   'Who did he bring it for?'

56a) Kofi bai di buku hen a déen di mii
     dá + en
     Kofi buy the book and he give-it the child
     'Kofi bought the book and gave it to the child.'

b) *di mii Kofi bai di buku hen a déen t
   the child...

c) *ambe Kofi bai di buku hen a déen t
   who...

d) *dá Kofi bai di buku hen a déen di mii
   give...
   ...give-it...
57a) a tseen ko hen a déen di mujee
he bring-it come and he give-it the woman
'He brought it and gave it to the woman.'
b) *di mujee a tseen ko hen a déen t
the woman...
c) *ambe a tseen ko hen a déen di mujee t
who...
d) *dá a tseen ko hen a déen di mujee
give... ...give-it...

In (54) and (55) above, both wh-movement of NPs and wh-forms is grammatical. In (56) and (57), on the other hand and as should be expected with conjuncts, no movement or copy of any kind is permitted. As a first approximation, then, dá Benefactive clauses may have a structure something like (58).

58)

But (58) cannot be correct since as we saw in the quasi-modal fu and INSTR analyses, the presence of two bounding nodes (the two S nodes in (58)) without an intervening S' should disallow the dislocation in (54) and
(55). Since it does not, then following the logic of previous sections, there must be a COMP position preceding each *da* Benefactive clause. However, again as with quasi-modal *fu* and serial INSTRs, no direct evidence of such is available; in each instance where a constituent uses the proposed S' node as a landing site, whether it be with actual Benefactives or consecutive actions, the result is ungrammatical.

59a) *Kofi bai di buku di mii dá t*  
Kofi buy the book the child give  
   b) *Kofi bai di buku ambe dá t*  
      ...who...

60a) *Kofi bai di buku di mii ta- dá t*  
   ...ASP...
   b) *Kofi bai di buku ambe ta- dá t*  
      ...who ASP...
   c) *Kofi bai di buku da ta- dá di mii*  
      ...give ASP-give...

In addition, for movement to S-initial position to acceptably take place as in (54), a COMP node is necessary. We thereby claim that a better rendition of the structural configuration of *da* Benefactive clauses is as in (61).
5.2.2 Datives

If dá Benefactive is characterized by its sentential characteristics, then dá Dative should be known for its lack of same. Unlike dá Benefactive which allows the full range of TMA markers (see (49, 50, 51)), dá Dative allows none.

62a) de taki dá di sembe taa di gaama ko aki
    they say give the person say the great-man come here
    'They said to the guy that the chief came here.'

b) *de taki bi- dá di sembe taa di gaama ko aki
    ...TNS...

c) *de taki ta- dá di sembe taa di gaama ko aki
    ...ASP...

d) *de taki sa- dá di sembe taa di gaama ko aki
    ...MOD...
63a) Magda konda di oto dá di basi (f)u Samo
   Magda tell the story give the boss for Samo
   'Magda told the story to Samo's boss.'
   b) *Magda konda di oto bi- dá di basi (f)u Samo
      ...TNS...
   c) *Magda konda di oto ta- dá di basi (f)u Samo
      ...ASP...
   d) *Magda konda di oto sa- dá di basi (f)u Samo
      ...MOD...

Nor is there any evidence of a subject before dá Dative. Unlike dá Benefactive, the negative marker an, which has appeared previously when either pro or an overt subject is present, cannot precede the Dative dá; it can only precede the matrix verb of a string with this dá.

64a) *de taki an dá di sembe taa di gaama ko aki
    they talk neg give the person say the chief come here
   b) de an taki dá di sembe taa di gaama ko aki
      ...neg...
    'They didn't say to the guy that the chief came here.'

65a) *Magda konda di oto an dá di basi (f)u Samo
    Magda tell the story neg give the boss for Samo
   b) Magda an konda di oto dá di basi (f)u Samo
      'Magda didn't tell the story to Samo's boss.'

Nevertheless despite the above features, because of its associated dislocation pattern we still cannot claim that dá Dative has been reanalyzed as a preposition (which
is the most common reanalysis that has taken place in other serializing languages, judging from the literature\(^8\). While this \(\text{da}\) never allows itself to be copied (a characteristic of prepositions, but also of many embedded verbs given the developing constraint on the process - see Chapters II, III and IV), still \(\text{da}\) and its NP complement may not dislocate together (a pattern uncharacteristic of prepositions in SA).

Consider (66) and (67).

66a) *\(\text{da}\) de taki \(\text{da}\) di sembe taa di gaama ko aki
give... give...
b) *\(\text{da}\) di sembe de taki \(\text{da}\) t taa di gaama ko aki
give the person... give...
c) *\(\text{da}\) di sembe de taki t taa di gaama ko aki
give the person...

67a) *\(\text{da}\) Magda konda di oto \(\text{da}\) di basi (f)u Samo
give Magda tell the story give the boss for Samo
b) *\(\text{da}\) di basi (f)u Samo Magda konda di oto \(\text{da}\) t
give the boss... give

c) *\(\text{da}\) di basi (f)u Samo Magda konda di oto t
give the boss...

Observe first that all of the above \(\text{da}\) forms have overtly marked high tones so as not to confuse them with \(\text{da}\) 'then'.

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\(^8\) See Givón (1975), Li and Thompson (1974), Lord (1973) and Schachter (1974), among others.
Note also that dá never copies (66-67a,b) nor can it prepose with the following NP (66-67b,c).

What is possible is for the NP complement or its appropriate wh-form to independently leftwardly dislocate through wh-type movement.

68a) di sembe de taki dá t taa di gaama ko aki
   the person they say give say the chief come here
   'It was the guy who was told that the chief came here.'

   b) ambe de taki dá t taa di gaama ko aki
       who...
       'To whom did they tell to that the chief came here?'

69a) di basi (f)u Samo Magda konda di oto dá t
   the boss for Samo Magda tell the story give
   'It was Samo's boss who Magda told the story to.'

   b) ambe Magda konda di oto dá t
       'Who did Magda tell the story to?'

If dá in (68) and (69) were prepositional, then based on the pattern for prepositions discussed in Chapters II and III, it should not strand. Since it does strand, which is the exact pattern for verbs, then most probably it is still a member of that category. Moreover, if it were prepositional, then it would form a single PP constituent with its complement NP and we would expect both dá and the following NP to dislocate together. Since they do not, they cannot have formed a PP.
There is no doubt, though, that dá Dative has undergone considerable change, especially if it once shared the properties of dá Benefactive. That it once did is quite probable since the two forms are homophonous and share the high tone characteristic of verbal dá. However, the question before us is not if these two items once exhibited the same formal properties, but if the changes that dá Dative has undergone are sufficient by themselves to consider this dá something other than a verb. Ansre (1966) looks at a cross-section of West African serializing languages and concludes that many "serial verbs" in these languages have changed to such a degree that they can no longer actually be verbs, but have not as yet changed to any other category. To distinguish them from verbs, he labels these items 'verbids', a term which originated with Jespersen (1937) and was subsequently used by Mittins (1962).

There is no reason to suspect, however, that the pseudo-category 'verbid' is applicable to SA. For one, since dá Dative does not follow the canonical dislocation pattern for prepositions, then there is no reason to believe that it in any way approximates a preposition. However, both because of the phonological identity and high tone which dá Dative and Benefactive share and because of the verbal dislocation pattern of the NP complement of dá Dative, then it must still be a verb.
If da is still a verb in this context, then the Dative string (i.e. da + NP) of course continues to be analyzable in terms of a sentence. By this approach, therefore, the lack of overt TMA marking simply means that da has become an infinitive (i.e. with INFL = [-TNS]) which, along with a few other structures, would constitute one of the few instances of such in the language. In addition, since infinitives do not have governed subject positions, we would have PRO and not pro. That an 'neg' cannot appear with da does not necessarily weaken the argument since in all instances where it has appeared previously (and to the best of my knowledge, where it is always found), it has followed a governed subject position. If this is an additional limiting feature for its presence, then the nonappearance of an is explicable.

The ideas of Lightfoot (1979: 220ff) also reinforce our contention that da Dative has not yet reanalyzed and is still verbal. He holds, as discussed in Chapter IV of this text, that category change is preceded by a number of exception features where the formative does not manifest certain characteristics of the pre-change category.

9. Another possible infinitive for some speakers is complementizer-like taa 'say, that' which we discussed in section 4.3 of Chapter IV. In Chapter VI, we will also see that moon 'more' is best looked at as contained within an infinitive structure for some SA speakers.
Eventually, the changes become so burdensome that the speakers view the item as a different category; they reanalyze it. So while the process of change is gradual, reanalysis itself is not; it happens at one point in time. Concerning dá Dative, because all SA speakers worked with produced the same dislocation pattern as that in (68) and (69), and because this pattern is the same for other verbs and their objects and does not imitate that of PPs (see Chapters II and III), then dá Dative is still a verb. Moreover, because the object complement of dá can be extracted to S-initial position, then for the reasons stated previously, the string should have a S' node preceding and have a structure as in (70).

(70)  
```
    S
   /\  
  NP  VP
     /
    V  S'
   /\  
  COMP S
   /\  
 NP  VP
    /\ 
   V NP
    ...
    PRO dá ...
    give
```

But (70) applies to a mere handful of Ss with matrix verbs such as taki/taa 'say' and konda 'tell' as in (62-....

10. See Footnote (11) and the corresponding discussion in Chapter IV.
63a). These ŋ-mark only for the Dative and never the Benefactive. Whereas the literature (see Footnote (8) above) usually presents Case-marking serials of the dá Dative type as changing to prepositions, SA – at least with those verbs that allow a Benefactive and a Dative role – seems to have taken a different tack. It has opted to delete the dá Dative marker and to identify the role positionally rather than morphologically. Consider first the data below.

71a) a dá di womi di moni
he give the man the money
'He gave the man the money.'

b) a dá di moni dá di womi
he give the money give the man
'He gave the money for (the benefit of) the man.'

72a) a paka di womi di moni
he pay the man the money
'He paid the man the money.'

b) a paka di moni dá di womi
he pay the money give the man
'He paid the money for the man.'

73a) Samo hakisi di mujee e a sa- go a foto
Samo ask the woman if she MOD-go to Paramaribo
'Samo asked the woman if she could go to Paramaribo.'
b) Samo hakisi dá di mujee e a sa-go a foto
   Samo ask give the woman if she MOD-go to Paramaribo
   'Samo asked for the woman if she could go to Paramaribo.'

74a) a sei di womi di wagi
    he sell the man the car
    'He sold the man the car.'

b) a sei di wagi dá di womi
    he sell the car give the man
    'He sold the car to the man.'
    'He sold the car for the man.'

In (71) to (73a), the Dative role with dá 'give', paka 'pay' and hakisi 'ask' takes the form of a "bare" NP (i.e. without dá Dative) and is found immediately following the main verb, whereas the Benefactive in (b) of the same data set is overtly signalled by dá. The exception to the pattern is (74b) which, when dá is overtly present, is ambiguous between a Dative and Benefactive reading. However, note in (74a) that like (71) to (73a), a "bare" NP may also variably express the Dative.

What appears to be happening here is that because of inherent ambiguity between the dá Dative and Benefactive readings, dá is omitted in just those instances (with the exception of (74b)) where a verb Θ-marks for a Theme and either a Dative or a Benefactive. Change has taken place to a greater degree with the Dative rather than the Benefactive
for the simple reason that the Dative is always strictly subcategorized for when it is present, but the Benefactive is often only optional. Notice first that when the Dative fills the strictly subcategorized slots with the verbs in (71) through (74), the Benefactive may then be optionally added.

75a) Kofi dá di womi di moni dá di mujee
   Kofi give the man the money give the woman
   'Kofi gave the man the money for the woman.'

b) a paka di womi di moni dá di oto womi
   he pay the man the money give the other man
   'He paid the man the money for the other man.'

c) a hakisi di mujee di vraag dá di mii
   he ask the woman the question give the child
   'He asked the woman the question for the child.'

d) a sei di womi di wagi dá di mujee
   he sell the man the car give the woman
   'He sold the man the car for the woman.'

In (a) through (d) of (75), the Dative and Theme roles fill the strictly subcategorized positions following each respective verb. When this is done, a Benefactive, introduced by dá, can then optionally follow. Notice also in (76) below that even when the Benefactive is the only role possible (alongside a Theme) following a verb such as bai 'buy' or tsa ko 'bring', it is still optional.
76a) a bai soni (dá di mujee)
   he buy something (give the woman)
   'He bought something (for the woman).'

b) a tsengko (dá di womi)
   he carry-it-come (give the man)
   'He brought it (for the man).'

(71) through (76) represents change in progress.
Charting the appearance of dá in that data, we have (77)
(which should portray the direction of the change).

<table>
<thead>
<tr>
<th>77) 'Appearance of dá'</th>
<th>dá</th>
<th>paka</th>
<th>hakisi</th>
<th>sei</th>
<th>taki</th>
<th>konda</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dative'</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+/ -</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

From the discussion of (71) through (74) and from the pattern in (77), the change has progressed up to sei 'sell' where it is now a variable occurrence. When and if the change becomes categorical for sei (and it may already be so for some speakers - a larger population base would probably confirm this), it may then continue through taki 'say' and konda 'tell'. Whether it does or not is immaterial for the present since the purpose of this particular discussion is to present evidence that change is in progress and that it should have begun in those environments which were ambiguous between a Dative and Benefactive reading.
The structural properties of this change and in particular, the nature of Case-assignment with the new linear configuration of NPs juxtaposed together without an intermediary Case-assigner, is superficially at least similar to the English double-NP construction as in (78) below and perhaps to similar structures in French as well (see Jaeggli 1980).

78) He asked the boy a question.
That is, Ss like (71-72a), repeated below as (79) and (80) for convenience, are similar to (78) in that they have two contiguous NPs without an intervening governor/Case-marker.

6) a dá di womi di moni
  'He gave the man the money.'
80) a paka di womi di moni
  'He paid the man the money.'

In addition, like some forms of American English, SA only allows pronominals in the first NP slot but not the second.

81a) a déen di moni
dá+en
he give-him the money
  'He gave him the money.'
82a) a paka en di moni
he pay him the money
  'He paid him the money.'
b) *a paka di womi en
   he pay the man it

In explaining the pattern, Adrienne Lehrer (p.c.) notes that (83) below is normally ungrammatical in many American dialects except when accompanied by the extralinguistic act of pointing at the object under consideration. 83) *John gave him it.
For his part, Derek Bickerton (p.c.) adds that (83) is perfectly acceptable in British English and, indeed, is often quoted as being one of the differences between the two forms of the language. Apparently American prosody often does not allow the sequence 'stressed NP - unstressed pronoun' but British English does. If SA prosody disallows the same sequence as does American English (and the recently(?) acquired double-NP construction certainly disrupts the usual 'Case-marker/governor-NP' sequencing pattern in SA), then the unacceptability of (81-82b) is determined at PF and is not a product of the syntax.

Returning to the syntax of the construction, while dá 'give' and paka 'pay' ə-mark, subcategorize for, and govern both NPs in (79) and (80) (and did so when dá Dative was overtly present - see Chapter III), now without the dá Dative marker, the two arguments must again somehow be Case-marked or there would be a violation of the Case Filter. In addition, if there is an adjacency requirement for Case-assignment in SA as Chomsky (1981: 94) observes may be true
for English, and it is reasonable to assume such for SA
since in all other instances in my data-base a Case-marker
is always contiguous to the Case-marked NP, then *di moni*
'the money' in (79) and (80) would constitute a violation of
that requirement if it is Case-marked by *dá* and *paka*.

There are at least two ways (and perhaps more) of
approaching the Case-marking question. The first is by
assuming, once again, that there are two different kinds of
Case: inherent and structural (see section 3.3.2). Under
this assumption (and also assuming the adjacency
requirement), *di womi* 'the man' in (79) and (80) would
receive structural Case in the normal way, through a lexical
Case-assigner (i.e. *dá* 'give' or *paka* 'pay'). For *di moni*
'the money', however, structural Case is not possible,
especially if the adjacency requirement holds and if Jaeggli
(1980) is right in assuming that a verb can only assign one
Case. For *di moni*, then, if it is not to run afoul of the
Case Filter, must receive inherent Case (which, as explained
in Chapter III, is a type of innate Case assigned to a
particular θ-role). Note that previously with *dá* Dative
present as in (84) (repeated from (74b)), each NP would have
received structural Case.

84) *a sei di wagi dá di womi*

'He sold the car to the man.'

If it is true as Chomsky suggests (1981: 94) that
the adjacency requirement is "one of the unmarked options
for Case Theory" (in SVO languages at least - see Aoun (1979), Emonds (1980) and Fiengo (1979) for adjacency in other language-types), then the pre-change serial strategy in SA for the Dative role represents the least marked option, with the "bare" Dative NP (i.e. the Dative without dá) constituting a more marked alternative. If this is correct, then structural Case should also be the less marked of the two types since it is a result of a NP being adjacent to a Case-marker, and inherent Case the more marked and associated with, perhaps, a marked option of core grammar. Taking this sequence of premises to its logical conclusion, since serial structures guarantee that all Case-marking will be by an adjacent Case-marker (i.e. INFL within a serial Nominatively Case-marks an adjacent subject (presupposing [+TNS]) and a serial verb Objectively marks an object NP), then serials, at least from the point of view of Case Theory, are less marked than many other possible configurations like, for example, double NPs.

The second option is to assume, as does Chomsky (1980, 1981) and Williams (1975), that there is an internal VP with a double NP structure as in (85).


If this is possible, and there is convincing evidence in Jaeggli (1980) from French that it is, then not only would the adjacency requirement be satisfied (as is evident from the structure of (85) in (86)), but also each V would Case-
mark only one NP and each NP, for their part, would receive structural Case.  

86) .

\[ \text{VP} \]
\[ V' \quad \text{NP} \]
\[ V \quad \text{NP} \]
\[ \text{gave} \quad \text{Bill} \quad \text{a book} \]

11. Wexler and Culicover (1980: 274ff) offer a third alternative. To account for movement phenomena in English, they postulate a derived structure with a "frozen node" dominating the first NP of a NP-NP sequence.

\[ \text{VP} \]
\[ V* \quad \text{NP} \]
\[ V \quad \text{NP} \]

The V* in the box is the "frozen node" and the NP dominated by this V cannot take part in transformational processes.

In relation to SA, the concept of a "frozen node" is not applicable since the first NP may dislocate.

ii) a dá di mujee di wagi  
he give the woman the car  
'He gave the woman the car.'

iii) di mujee a dá t di wagi  
the woman...  
'It was the woman who he gave the car to.'

iv) ambe a dá t di wagi  
who...  
'Who did he give the car to?'

However, the configuration in (i) which is identical to (86) would allow adjacent Case-assignment. Thus Wexler and
In evaluating the two approaches, we immediately encounter similar problems with the inherent Case analysis as we had with prepositional phrases in Chapter III. If inherent Case is assigned to the second NP of a double-NP structure at D-structure as Kayne (1979) contends, then wh-type dislocation of this second NP in (79) or (80) should be ungrammatical in SA since each respective verb would presumably not assign structural Case to the variable traces at S-structure because of nonadjacency.

87a) di moni a dá di womi t
the money he gave the man
'it was the money that he gave the man.'

b) andi a dá di womi t
what...
'What did he give the man?'

88a) di moni a paka di womi t
the money he paid the man
'it was the money that he paid the man.'

b) andi a paka di womi t
what...
'What did he pay the man?'

Since (87) and (88) are grammatical, then the inherent Case analysis cannot be correct. We will therefore conclude for Culicover have independently arrived at the same structure for double-NP complements as Chomsky (1980, 1981), Jaeggli (1980) and Williams (1975).
the reasons given previously that (86) with an internal VP best represents the facts of the double-NP structure in SA.

5.3 Summary

Throughout this chapter, Case-marking serials have manifested varying indications of sententiality. Serial INSTRs at times exhibit overt subjects and can be tensed. dá Benefactive can be tensed and there is no doubt that it also has a subject based on the behavior of the an negative particle. Alternatively with dá Dative, none of the above features appear; it may not be tensed and an may not precede. However, based on the dislocation pattern of its object NP, there is good reason to believe that it is an infinitive.

Because of the above-mentioned accompanying characteristics pertaining to these serials, it seemed a bit unproductive to continue analyzing serialization in SA from the point of view of the negatively orientated features developed for other serializing languages. Rather, it was concluded that a more fruitful approach would be to look at serials, in SA at least, based on their deviation from a set of prerequisites normally associated with finite clauses. With these thoughts in mind, then, we will continue our look at these structures in Chapter VI, where we will discuss verb-modifying serials.
CHAPTER VI

VERB-MODIFYING SERIALS

In Chapter V, the verbs てi 'take' and だá 'give' were shown to function principally as governors and thereby Case-markers of NPs. In this chapter we will look at serials which directly modify the action or state represented by a previous verb. Again though, as mentioned in Chapters IV and V, we would expect that those serial constructions which express less cohesive and simultaneous actions would exhibit more sentential phenomena than those which are more interconnected. Thus, we have seen that the INSTR serials display overt subjects and tensing and, not surprisingly, besides an INSTR reading, the actions display their independence by also often having consecutive-action interpretations. At the other end of the spectrum, たaa 'that' and especially だá Dative display very few, if any, sentential qualities. These last serials to be discussed in this text fall somewhere between the two extremes above. We will begin this chapter with a look at the directional serials こ 'come' and ご 'go', followed by, for lack of a better term, another directional, とongtu 'around', then the perfective かba 'finish' and the comparative ぱsa 'pass', and finally, at what we will call periphrastic serials. In
this last section, there will also be a second examination of control.

6.1 go 'go' and ko 'come'

The analyses of go 'go' and ko 'come' (or their cognates) have always been somewhat problematic in creolistics. The main reason for this is that these formatives normally are multi-functional to an extreme and are adding new functions as reanalysis takes place. For instance, Cave (1976) claims that go in Guyanese Creole variously functions in just the S in (1) below as a modal, main-verbally, and perhaps as a COMP.

1) wi go go go fine am (Cave 1976: 12)
   we go go go find it (translation added)
   'We are going to go and find it.'

From strictly syntactic analyses, in works such as Bickerton (1981: 127-30), Jansen et al. (1978), Roberts (1975), and Williams (1971), the usual conclusion is that non-main-verbal ko/go 'come/go' (read as ko and/or go, depending on the context) represent VPs, at least in Sranan and Krio. Such a conclusion was reached primarily because ko/go in the creoles studied i) never have overt subjects, ii) never manifest overt TMA marking, and iii) allow constituents which follow ko/go to dislocate to S-initial position. Nevertheless, regardless of the hypothesized configurations in other creoles but like the formatives
previously discussed in this volume, ko and go in SA exhibit sufficient independently-motivated justification to consider them to be finite Ss. With these thoughts in mind, we will analyze go and ko in each of their various syntactic environments, beginning with matrix go and ko.

6.1.1 Matrix go and ko

As matrix verbs, as should be expected, go and ko exhibit all the properties of other verbs with the same status. They take subject arguments which overtly appear and can co-occur with the overt TNS particle bi.

2a) a bi- go (a di wosu)
   he TNS-go (to the house)
   'He had gone (to the house).'

b) a bi- ko (a matu)
   he TNS-come (to jungle)
   'He had come (to the jungle).'

They may focus a copy of themselves to S-initial position.

3a) go a go (a di wosu)
   'He WENT (to the house).'

b) ko a ko (a matu)
   'He CAME (to the jungle).'

And they optionally subcategorize for either a PP as in (2) and (3) or a sentential complement as in (4), or both as in (5).
4a) a go ta- luku di mii
   he go ASP-look-at the child
   'He went to look at the child.'

b) a ko ta- wooko ku di womi
   he come ASP-work with the man
   'He came and is working with the man.'

5a) a go a di wosu ta- luku di mii
   he go to the house ASP-look-at the child
   'He went to the house to look at the child.'

b) a ko a di wosu luku di mii
   ...come...
   'He came to the house to look at the child.'

Concerning the complement clauses following go and ko above, there is no doubt about their finite status since the overt TNS marker bi may appear as in (6a,b) below.

6a) a go a di wosu bi- ta- luku di mii
   he go to the house TNS-ASP-look-at the child
   'He had gone to the house to look at the child.'

b) a ko a di wosu bi-ta-luku di mii
   ...come...
   'He had come to the house to look at the child.'

There is likewise no doubt that these same clauses are preceded by a COMP node since some speakers, including the most conservative, may use that position as a landing site.
7a) (*)a go a di wosu [di mii [a ta-luku t]]
    he go to the house the child he ASP-look-at
    'He went to the house where it is the child who he is
    looking at.'

b) (*)a ko a di wosu [di mii [a ta-luku t]]
    ..come...
    'He came to the house where it is the child who he is
    looking at.'

8a) a go a di wosu ta-luku en
    he go to the house ASP-look-at him
    'He went to the house to look at him.'

b) (*)a go a di wosu [hen [a ta-luku t]]
    he go to the house HIM he ASP-look-at
    'He went to the house where it is him that he is looking
    at.'

9a) a ko a di wosu ta-luku en
    ..come...
    'He came to the house to look at him.'

b) (*)a ko a di wosu [hen [a ta-luku t]]
    'He came to the house where it is him who he is looking
    at.'

All speakers, though, may dislocate the object NPs in (6a,b) and (8-9a) above to S-initial position.

1. Hen also reads as 'and', but not in (8-9b). There are gaps in the second clauses of these Ss and as
   such, hen would be read as a focused pronominal.
10a) di mii [a go a di wosu [t [pro ta- luku t ]]]
    the child he go to the house  ASP-look-at
    'It was the child that he went to the house to look
    at.'

    b) hen [a go a di wosu [t [pro ta-luku t ]]]
    him...
    'It was him that he went to the house to look at.'

11a) di mii [a ko a di wosu [t [pro ta-luku t ]]]
    ...come...
    'It is the child who he came to the house to look at.'

    b) hen [a ko a di wosu [t [pro ta-luku t ]]]
    'It is him who he came to the house to look at.'

The importance of (7) through (11) is threefold.

First, with the presence of the overt subject pronominal a
'he' in (7a,b) and (8b), the claim made in section 2.2 that
the ASP marker ta with a present reading is sufficient by
itself to govern a subject position is further justified; if
pro were not present, then its overt counterpart, the
Nominatively-marked a 'he' could not appear, nor the
negative particle an which follows a θ-marked or overtly
filled external argument position (see section 5.1.2).

12a) a ko/go a di wosu an luku di mii
    ...neg...
    'He came to the house, but not to look at the child.'

    'He went to the house, but not to look at the child.'
b) *a ko/go a di wosu na luku di mii

...neg...

Second is the dislocation pattern of the moved constituents. Because of the variable acceptability of (7a,b) and (8-9b), we see that some kind of constraint is developing in the acceptability of certain subordinate COMP positions as landing sites. What this constraint is is not yet apparent. Nevertheless, that some Saramaka may move dislocated items to a subordinate COMP node is empirically indicative that for them at least, there is such a node preceding these subordinate clauses.

The third observation deals with (8) through (11). As noted in Chapter II, III and IV, hen 'HE, SHE, IT' and de 'emphatic THEY' may optionally appear with dislocated NPs and we concluded that they accompany NPs in a S' position. And as observed for ka 'where' in section 4.1.1 of Chapter IV, when an object pronominal dislocates, it also takes the form of hen and should also be in S'. That is, it should be in S' unless one is willing to argue that there is a subordinate S'' node. That there is not should be clear from the following facts. One, as suggested in section 4.1, when anything occupies a subordinate COMP position, no binding from COMP or additional movement is possible (but see the taa 'say, that' discussion in section 4.3). With this in mind, consider (13) (with either go or ko - i.e. go/ko - as the matrix verb).
13a) a go/ko a di wosu ta-njan di gbamba/en a
he go/come to the house ASP-eat the meat it on the
di paabi
the plate
'He went/came to the house to eat the meat/it on the
plate.'
b) a di paabi(i) a go/ko a di wosu ta-njan di
on the plate... ...the
gbamba/en t(i)
meat/ it
'It was on the plate that he went/came to the house to
eat the meat/it.'
c) *a di paabi(i) [a go/ko a di wosu [di gbamba(j)
on the plate... ...go/come... ...the meat...
[a ta-njan t(j) t(i) ]]]
d) *a di paabi(i) [a go/ko a di wosu [di gbamba hen(j)
on the plate... ...the meat IT...
[a ta-njan t(j) t(i) ]]]
e) *a di paabi(i) [a go a di wosu [hen(j) [a ta-njan
on the plate... ...IT...
t(j) t(i) ]]]

As exemplified in Chapters II through V, movement
over a dislocated constituent is ungrammatical in SA. Thus,
when the object NP di gbamba 'the meat' with or without hen
'IT' in (13c,d) is in COMP, then additional movement is
ungrammatical. The same is true for hen alone in (13e). If
one supposes that *di gbamba* 'the meat' is somehow in a S'' position and *hen* in S', then how would one explain (13c,d,e) which have exactly the same effect on *a di paabi* 'on the plate'? If either or both *di gbamba* in (13c) and *hen* 'IT' in (13e) were under a TOP node, then COMP would be available for cyclic movement and we would expect some difference in judgment. Alternatively, if both *di gbamba* 'the meat' and *hen* 'IT' separately block movement, then there must be only one vacant node (i.e. COMP). And if there is only COMP preceding S, then *di gbamba* 'the meat' and *hen* 'IT' must both occupy it. Based on these observations, therefore, the conclusions reached in Chapter III that all movement is COMP-to-COMP and a COMP node filled with a dislocated constituent blocks additional movement are again reinforced here.

Given the above facts, the structure of matrix *go* and *ko* with a sentential complement should be as in (14).

14) 

```
       S''
        COMP
          S
            NP
            VP
              V
              (PP)
              S'
            COMP
```

...go/ko...

That is, as in all other serial or sentential complement structures so far surveyed (with the exception of *taa* 'say, that' for some speakers), there is a matrix-subordinate relationship with each clause preceded by a COMP node. In
all instances this is the structure and it never is the case as in some creoles such as Sranan in (15) that go and ko form a single constituent (i.e. a complex verb) with a following verb.

15) a) go luku (Jansen et al. 1978: 139)
   he go look
   'He went to look.'

The two Sranan verbs go 'go' and luku 'look' in (15) can copy together as in (16), lending support to the supposition that they form a single constituent.

16) na go luku mi go luku (Jansen et al. 1978: 139)
   is go look I go look
   'I really went and looked.'

In SA, however, the equivalent of (16) with either go or ko is ungrammatical as is shown in (17).

17a) *go luku a go luku
    go look-at he go look-at
   b) *ko luku a ko luku
       come... ...come...

Neither go luku 'go look-at', ko luku 'come look-at', nor any other verb combination can ever copy as one constituent; only each individual verb can copy as in (18) and (19).

18a) go a go luku di mii
    'He WENT to look at the child.'
   b) luku a go luku di mii
    'He went to LOOK AT the child.'
19a) ko a ko luku di mii
   'He CAME to look at the child.'

b) luku a ko luku di mii
   'He came to LOOK AT the child.'

6.1.2 Main Verb go/ko in Subordinate Ss
   As a subordinate main verb, ko 'come' and go 'go' behave exactly as do other verbs in this context. That is, as should be expected, they enjoy no special status but are reflections of the properties of complements of an immediately dominating verb. Note (20) and (21) (and also nan- in (20a) which is an alloform of the ASP marker ta2).

20a) a si a nango a di kikii
    he see she ASP-go to the creek
    'He saw her going to the creek.'

b) a si a ta- ko a di kikii
    ...ASP-come...
    'He saw her coming to the creek.'

21a) Samo ke faa bi- go a di wosu
    Samo want for-he TNS-go to the house
    'Samo wanted him to go to the house.'

2. That is, nan- is also an ASP marker like ta, but is found exclusively with go. According to Smith (1980: 21), both ASP markers originated from English stand whose reflex in 1778 had the single form tann.
b) Samo ke faa bi- ko a di wosu
    ...TNS-come...

'Samo wanted him to come to the house.'

As discussed in section 2.2, complements of perception verbs are finite and take Nominatively-marked subjects, or exactly like the complements of si 'see' with go and ko in (20a,b). Similarly, fu 'for' complements, as seen in Chapter IV, are also finite with Nominimatively-marked subjects, or again like the sentential complements in (21a,b).

6.1.3 V go/ko

Turning to go 'go' and ko 'come' immediately following a motion verb, other considerations have to be dealt with. For one, go and ko add directionality to such a verb and as such, function somewhat like true adverbials. Note the pattern below.

22a) a waka a di apolani
    he walk in the airplane
    'He walked (directionlessly) in the airplane.'

b) a waka go a di apolani
    he walk go from the airplane
    'He walked from the airplane.'

c) a waka ko a di apolani
    ...come...
    'He walked towards the airplane.'

Without go or ko in (22a), the verb waka 'walk' is
interpreted as nondirectional movement without any particular goal, but with go or ko as in (22b,c), it can only mean that movement took place with a particular directionality in mind.

In regard to the syntactic characteristics of these items, first of all a copy of either a motion verb or go may categorically appear in S-initial position, a copy of ko 'come' may do so only with the most conservative speakers, but no speaker worked with can copy a verb + ko or go together.

23a) waka a waka go a di apolani
    walk he walk go from the airplane
    'He WALKed from the airplane.'

b) go a waka go a di apolani
    go... ...go...
    'He walked FROM the airplane.'

c) *waka go a waka go a di apolani
    walk go...walk go...

24a) waka a waka ko a di apolani
    walk...walk...
    'He WALKed towards the airplane.'

b) (*)ko a waka ko a di apolani
    come... ...come...
    'He walked TOWARDS the airplane.'

c) *waka ko a waka ko a di apolani
    walk come...walk come...
Second, as with a copy of ko 'come', only the two most conservative speakers of the four principle informants may overtly tense go and ko with bi as in (25-26a). It should be noted that for the two speakers who cannot tense go or ko, they have the fully grammatical alternative with exactly the same reading with tense on the motion verb as in (25-26b).

25a) (*)a waka bi- go a di apolani

he walk TNS-go from the airplane

'He had walked from the airplane.'

b) a bi- waka go a di apolani

...TNS...

'He had walked from the airplane.'

26a) (*)a waka bi- ko a di apolani

...TNS-come...

'He had walked towards the airplane.'

b) a bi- waka ko a di apolani

...TNS...

'He had walked towards the airplane.'

All speakers worked with, however, allow ASP marking with go or ko and/or on waka 'walk'.

27a) a waka nango a di apolani

...ASP-go...

'He walked and is going to the airplane.'
b) a ta- waka go a di apolani
   ASP...
   'He is walking from the plane.'

c) a ta- waka nango a di apolani
   ASP... ASP-go...
   'He is walking from the plane.'
   'He is walking and going to the plane.'

28a) a waka ta- ko a di apolani
     ASP-come...
     'He walked and is going to the plane.'

b) a ta- waka ko a di apolani
   ASP...
   'He is walking towards the plane.'

c) a ta- waka ta- ko a di apolani
   ASP... ASP...
   'He is walking towards the plane.'
   'He is walking and coming towards the plane.'

While all speakers assured me that the ASP markers nan-3 and ta, as the case may be, indicate present time and thus represent a [+TNS] designation, only (27-28b,c) express the directionality of the previous motion verb waka 'walk' since their time frames are the same (or are interpreted as such). This is a prerequisite for such a reading. (27-28a), with Ø

3. See Footnote (2) above.
marking on waka and nan- and ta with go 'go' and ko 'come', have differential time matrices and thereby can only be read as sequential events as the gloss indicates.

A third characteristic of directional ko and go is the inability of either negative particle an or na from preceding. Note (29) and (30).

29a) *a waka an ko a di apolani
   he walk neg come towards the plane
   b) *a waka na ko a di apolani
       ...neg...

30a) *a waka an go a di apolani
    ...neg go...
   b) *a waka na go a di apolani
       ...neg...

Possibly when a clause begins losing finite features such as bi, negative markers are no longer able to precede INFL. However, as we saw in (25) and (26), half the speakers may mark these ko and go with bi yet still do not allow negation to precede. Thus, the non-appearance of these particles may depend uniquely on the properties of ko and go in these environments.

Whatever the final resolution of the an/na negation question, because of the variable acceptance of bi and the categorical grammaticality of ta and nan- with ko and go, respectively, there seems to be a hierarchy in the order of eradication of these particles within INFL. That is, from
the data with ko/go (and the pattern with bi and ta in the complements of perception verbs discussed in Chapter II), bi which is unambiguously [+TNS] is always the first to be restricted and/or to be variable in appearance. Next to disappear, if in fact there is a hierarchy, should be ta (or nan- with go) which does not always have a [+TNS] value (see section 2.2). Finally we have modals (in the syntactic and semantic sense discussed in sections 4.2.4, 4.2.4.1 and 4.2.4.2) such as o 'will' which may or may not signal [+TNS]. At any rate, we saw with taa 'say, that' that only the most conservative speakers allow sa, indicating that for most speakers taa is either a finite clause or an infinitive, depending on the [+TNS] value of sa. Moreover, with dá Dative in Chapter V, no such particles co-occur, leaving us with no other alternative but to consider this dá as an infinitive. Nevertheless, because of the variable appearance of bi with directional ko/go immediately following a motion verb and the categorical acceptability of ASP with a present reading, these ko and go should be within finite clauses with a pro subject. And because of the possibility of extraction to S-initial position of the

4. As mentioned in previous chapters, such a determination will of course depend on how modals are ultimately viewed within INFL.
PPs in (31) and (32), $S'$ precedes these formatives because of Subjacency and bounding theory as it applies to SA (see Chapters III through V).

31a) a di apolani a waka go t
from the airplane he walk go
'It was from the airplane that he walked.'
(perspective: speaker is in the airplane)

b) naandi a waka go t
from-what...
'What did he walk from?'

32a) a di apolani a waka ko t
...come
'It was towards the plane that he walked.'
(perspective: speaker is in the airplane)

b) naandi a waka ko t
towards what...
'What did he walk towards?'

For the reasons stated above, directional ko and go immediately following a motion verb should therefore have the structure in (33).
Also of importance with motion verbs is the placement of go 'go' and ko 'come'. With some of these verbs (those which do not subcategorize for a NP), the go or ko must be contiguous or a directional meaning will not be achieved. Consider (34a,b).

34a) a waka a di apolani go (a foto)

he walk in the plane go (to Paramaribo)

'He walked in the plane while he went (to Paramaribo).'

b) a waka a di apolani ko (a foto)

...come...

'He walked in the plane while he came (to Paramaribo).'

As is evident from this data, when go or ko is separated from waka 'walk', go and ko are best looked at as separate events which just so happen to coincide with the occurrence of the first event.

With other motion verbs, however, specifically those which strictly subcategorize for a NP, the only possible linear order is with go/ko (i.e. go or ko) following the NP.
35a) a tseen go/ko
tsa + en
he carry-it go/come
'He took it.'
'He brought it.'

b) a tseen go/ko a di konde
he carry-it go/come to the village
'He took it to the village.'
'He brought it to the village.'

c) a tsa di meliki go/ko (a di konde)
he carry the milk go/come (to the village)
'He took the milk (to the village).' 'He brought the milk (to the village).' 

d) *a tsa go/ko en
he carry go/come it

e) *a tsa go/ko di meliki a di konde
he carry go/come the milk to the village

f) *a tsa go/ko
he carry go/come

It should be obvious in the above data that tsa 'carry'
strictly subcategorizes for a NP; if go or ko as in (35d,e)
separates the NP from tsa 'carry' or if a NP does not appear
as in (35f), the result is ungrammatical. Thus while ko and
go inherently express their own directionality, for these
items to add directionality to tsa 'bring', unlike for
example waka 'walk' in section 6.1.3 which does not strictly
subcategorize for anything and which \textit{go/ko 'go/come'} may
directly follow, they must linearly follow the strictly
subcategorized NP as in (35a,b,c).

Whether or not \textit{go/ko} following a 'V-NP' or 'V-PP'
string constitutes a semantically separate event as with
\textit{waka 'walk'-PP} or an actual directional such as with \textit{tsa}
'carry'-NP, their syntactic behavior nevertheless remains
the same. In regard to verb copy, the least conservative
speakers cannot do so with either type of \textit{go/ko}. The
result for them is either an ungrammatical S or two Ss as in
the second glosses of (36-37b,c).

36a) \textit{waka a waka a di apolani go/ko a foto}

\begin{verbatim}
walk he walk in the plane  go/come to Paramaribo
'He WALKed in the plane while he went to Paramaribo.'
'He WALKed in the plane while he came to Paramaribo.'
\end{verbatim}

b) (*\textit{go a waka a di apolani go a foto}

\begin{verbatim}
...go...
'He walked in the plane while he WENT to Paramaribo.'
'Go! He walked in the plane while he went to
Paramaribo.'
\end{verbatim}

c) (*\textit{ko a waka a di apolani ko a foto}

\begin{verbatim}
come...
'He walked in the plane while he CAME to Paramaribo.'
'Come! He walked in the plane while he came to
Paramaribo.'
\end{verbatim}
37a) tsa a tsa di meliki go/ko a di konde
carry he carry the milk go/come to the village
'He TOOK the milk to the village.'
'He BROUGHT the milk to the village.'
b) (*)go a tsa di meliki go a di konde
go... ...go...
'He took the milk TO the village.'
'Go! He took the milk to the village.'
c) (*)ko a tsa di meliki ko a di konde
come... ...come...
'He brought the milk TO the village.'
'Come! He brought the milk to the village.'

Concerning tensing, no speaker worked with had any
difficulty in marking go with bi in either the non-
directional waka 'walk'-PP string or with the directional
tsa 'carry'-NP type. The only variability in judgment
occurred with tense on both clauses at the same time.
Consider the pattern in (38) and (39).
38a) a bi-waka a di apolani go a foto
he TNS-waka in the plane go to Paramaribo
'He had walked in the plane while he went to
Paramaribo.'

b) a waka a di apolani bi- go a foto
...TNS...

'He had walked in the plane while he went to
Paramaribo.'
c) (*)a bi- waka a di apolani bi- go a foto
\[ \text{TNS-} \ldots \qquad \text{TNS}\ldots \]
'He had walked in the plane while he went to Paramaribo.'

39a) a bi- tsa di meliki go a di konde
he TNS-carry the milk go to the village
'He had taken the milk to the village.'

b) a tsa di meliki bi- go a di konde
\[ \text{TNS}\ldots \]
'He had taken the milk to the village.'

c) (*)a bi- tsa di meliki bi- go a di konde
\[ \text{TNS}\ldots \qquad \text{TNS}\ldots \]
'He had taken the milk to the village.'

Each of the three Ss in both (38) and (39) have the same reading, indicating again that when bi appears on some lower clauses (but without such marking on a higher clause), the TNS orientation must also apply to the higher S because of the canonical SA strategy of mapping events onto sequence-of-tense order. If the scope of bi in (38-39b) did not include the matrix clause, there would be an unacceptable disruption of the order of events and the strings as a whole would necessarily be ungrammatical.

Unlike (38) and (39) with go, however, with ko 'come' there is no clear pattern from the available data. At times all speakers including the most conservative
rejected bi placement before ko in the contexts under
discussion, and at other times they did not.
40a) a bi-waka a di apolani ko a foto
   ...TNS... ...come...
   'He had walked in the plane while he came to
   Paramaribo.'

b) (*)a waka a di apolani bi- ko a foto
   ...TNS...
   'He had walked in the plane while he came to
   Paramaribo.'

41a) a bi- tsa di meliki ko a di konde
   he TNS-carry the milk come to the village
   'He had brought the milk to the village.'

b) (*)a tsa di meliki bi- ko a di konde
   ...TNS...
   'He had brought the milk to the village.'

Such variation as in (40-41b) can only mean that ko 'come'
structures such as the above are undergoing change. For the
moment, the speakers are uncertain as to the appropriateness
of such marking and vary between judgments. From this
evidence and judging from the variation studies cited in
previous chapters, bi will quite possibly later be
eradicated in ko environments such as those above.

The significance of bi eradication with ko 'come' is
that this appears to be the first step, or perhaps one of
the first, in reduction of a full finite sentential string
to an infinitive. But even if this is true, ko in the above examples is still finite since all speakers allow the ASP marker ta with a present reading^5 to precede each ko without any variability in judgments. Based on the criterion developed in section 2.2 for such a present reading, ta should have a [+TNS] value. Note (42).

42a) a waka a di apolani ta- ko a foto
   'he walk in the plane ASP-come to Paramaribo'
   'He walked in the plane while coming to Paramaribo.'

   b) a tsa di meliki ta- ko a di konde
   'he carry the milk ASP-come to the village'
   'He carried the milk while coming to the village.'

The same present reading occurs with go when accompanied by the ASP marker nan-.

43a) a waka a di apolani nango a foto
   'he walk in the plane ASP-go'
   'He walked in the plane while going to Paramaribo.'

   b) a tsa di meliki nango a di konde
   'he carry the milk ASP-go'
   'He carried the milk while going to the village.'

5. The glosses in (42) and (43) do not reflect such a present reading, but would be interpreted as having the same temporal orientation as the matrix clause. However, this is another instance where the English glosses cannot capture the realities of SA. In repeated questioning during different working sessions, all Saramaka consulted consistently assured me that ta in (42) and nan- in (43) indicate present time.
However, with a present reading for the ASP markers ta and nan- preceding nonmatrix ko 'come' and go in (42) and (43), these items cease being directional serials as in (27-28a) since the time orientation on each clause is not coincidental. Only a consecutive action interpretation is thereby viable. Nevertheless, because independent ASP and/or TNS markers are possible in these clauses whether serial or not, this means that these particular go and kos have a governed subject position, but, as far as is known, one which is never overt even though it must be pro.

There must also be a COMP node preceding these ko and go sentential strings since dislocation of the most embedded prepositional phrase is grammatical in all instances. Note (44) and (45).

44a) a foto a waka a di apolani go/ko t to Paramaribo...
'It was to Paramaribo where he went/came while he walked in the airplane.'

b) naase a waka a di apolani go/ko t to-where...
'Where was he going/coming while he walked in the airplane?'

45a) a di konde a tsa di meliki go/ko t to the village...
'It was to the village that he took/brought the milk.'
b) naase a tsa di meliki go/ko t
at-where...
'Where did he take/bring the milk?'
Based on the above evidence, therefore, the structure of these go and ko strings should be as in (46).

46)

<table>
<thead>
<tr>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP</td>
</tr>
<tr>
<td>VP</td>
</tr>
<tr>
<td>V</td>
</tr>
<tr>
<td>PP/NP</td>
</tr>
<tr>
<td>a waka a di apolani ∅ pro go/ko a foto</td>
</tr>
</tbody>
</table>

'He walked in the plane while he went/came to Paramaribo.'

a tsa di meliki ∅ pro go/ko a di konde

'He took/brought the milk to the village.'

6.1.5 Directional go and ko

Since waka go/ko 'walk + whatever direction go and ko signify' and tsa NP go/ko 'take NP to/bring NP to' have specific meanings based on the combination of the meanings of the two verbs, not to list motion verbs with their possible directional markers in the lexicon would be to miss a productive lexico-syntactic pattern. However, a motion verb + go/ko does not constitute a single constituent, but are separate syntactic units as we have seen. These items might then best be treated somewhat like idioms in the lexical formalism developed by Jackendoff (1975: 662-64).
For example, waka go 'walk towards, from, etc.' would have a separate entry in the lexicon which would look something like (47a), while tsa NP go 'take NP to' would have another entry which, for its part, would look like (47b).

\[
\begin{align*}
47a) & \quad \text{np aINFL waka [S' [S pro aINFL go (PP)]]} \\
& \quad \text{np walk from, towards, etc. (PP)} \\
\end{align*}
\]

\[
\begin{align*}
47b) & \quad \text{np aINFL tsa np [S' [S pro aINFL go np]]} \\
& \quad \text{np take np from, towards, etc.}
\end{align*}
\]

(47a,b) will suffice for the moment as a first approximation, but keep in mind that waka ko 'walk from, towards, etc.' and tsa NP ko 'bring NP' would have entries all but identical to those above with go. A redundancy rule should therefore be possible.

Concerning first some of the specifics of the entries, note that INFL before each verb has a $a$ value. Since directionals for all intents and purposes are serials and since serials must have the same time orientation, then the $a$s indicate that whatever temporal matrix occurs with one verb will occur with the other whether such marking overtly occurs with both verbs or not. Also note that the directional go allows numerous different readings as represented by 'FROM, TOWARDS, ETC.'. Actually, any reading of a serial directional depends totally on the point of view.
of the speaker and his perspective in relation to the action commented upon. Thus, any translation depends entirely on the context of the utterance. With all other features of the entries accounted for, the only other remaining aspect of these still left undiscussed is the possibility of a redundancy for directionals.

Since for all practical purposes the dislocation pattern and characteristics associated with directional ko 'come' are nearly identical to those discussed for go, the first approximation for capturing the facts of directional go in lexical entries are applicable to ko as well.

However, to treat motion verbs with go/ko directionals as idioms is to lose the generalization that the patterns are recurrent. Also lost with just lexical entries is that the meaning of this type of verb with a directional is the sum of its parts. To better capture this recurrent pattern and again following Jackendoff (1975), each instance of a different motion verb with a directional would be separately listed in the lexicon such as we did in (47a,b), but additionally there would be a reference to a particular redundancy rule (see (40) in Chapter III). This redundancy rule would take a form somewhat like that in (48) below.
The leftmost entry in (48) first indicates the linear order of the constituents in a motion verb construction with a directional. The NP is in parentheses to capture the fact that some directionals immediately follow the motion verb and some are separated as in tsa NP ko/go 'bring NP to/take NP to'. The slanting line between ko and go again simply means 'ko and go' and should not be confused with any particular formalism in contemporary grammars. The second line (and continuing to the end of the entry) is a representation of the combined meaning of the verb with ko or go. Next, moving to the right, the arrow between the two entries specifies that there is a redundancy between this verb-type and ko/go. The information available to us here is that given a verb with the feature [+Motion] and given ko or go, that these items may semantically combine with a reading something like that in the left entry.

The value of this approach is that we have indicated that ko and go combine with a motion verb and together, they constitute a recurrent pattern. To paraphrase Jackendoff
(1975: 656), the redundancy rule in (48) defines the set of possible verbs with optional directional readings in SA, and the lexicon lists the actual verbs with ko and go directionals. In this way, we are able to express generalizations that cannot be made in the syntax.

6.1.6 Complementizer-Like go/ko

There is still one other aspect of ko and go that has yet to be touched upon: this is that non-matrix ko or go (whether directional or not) frequently precede other verbs in creoles and as such, have been categorized as infinitive markers in various languages. As we saw in section 6.1, Cave (1976: 12) claims that the third go in (1) from Guyanese Creole, repeated here as (49), introduces infinitives and is distinct from other uses of go.

49) wi go go go fine am (Cave 1976: 12)
   we go go go find it (translation added)
   'We are going to go and find it.'

Bickerton (1977: 177-78), for his part, notes that in many doubtful cases in Hawaiian Creole English, the function and/or categorial status of non-matrix go may be that of an infinitive marker.
50) we dei gon get da mani, nau, fo go help as go where they going get the money, now, for go help us gaiz go saplai (Bickerton 1977: 177)
guys go supply (translation added)
'Where are they going to get the money, now, to [go and?] help us fellows to supply...'
Based on both the improbability of 'go and help us fellows go and supply' as a plausible interpretation of (50) and the fact that creoles which are undergoing decreolization (as Hawaiian Creole English is) often reduplicate grammatical information, then if the first go in (50) reduplicates the function of fo 'for' (which Bickerton holds is an infinitive marker), then this go would likewise introduce infinitives in the same way as (it is claimed) the second go before saplai 'supply' does.
Washabaugh (1981: 92-5) also advocates that one of the functions of go in Providence Island Creole is that of an infinitive marker. His strongest argument is that go with this function may deviate from the usually firm restriction that such a formative must be in agreement with the directionality of a matrix verb if that verb contains

such a feature. Thus, if the matrix verb is go itself, then it should only co-occur with go and not kom 'come'.

51) *dem se PP wudn go kom kot kien (Washabaugh they say PP wouldn't go come cut cane 1981: 95)

However, that Ss like (52) below exist in Providence Island Creole lends support to the claim that this non-matrix go is no longer verbal, at least in this context, but has been "bleached" (Washabaugh's terminology) of its verbal features and is now an infinitive marker.

52) ai mos kom aut go luk waif (Washabaugh 1981:94)
   I must come out go look-for wife (translation added)
   'I must come out to look for a wife.'

Turning to SA, here too we have what might be called the 'ko/go' complementizer effect'; both directional and non-directional ko and go often immediately precede other verbs.

53a) de waka go hondi di pingo
   they walk go hunt the pig
   'They walked (that way) to hunt the pig.'

b) de waka a matu go hondi di pingo
   ...to jungle...
   'They walked to the jungle to go and hunt the pig.'

c) de waka go a matu go hondi di pingo
   ...go... ...go...
   'They walked towards the jungle to go and hunt the pig.'
d) de ke a go wasi di wagi
they want he go wash the car
'They want him to go and wash the car.'

54a) de waka ko hondi di pingo
they walk come hunt the pig
'They walked (this way) to hunt the pig.'

b) de waka a matu ko hondi di pingo
...to jungle...
'They walk to the jungle to come and hunt the pig.'

54c) de waka ko a matu ko hondi di pingo
...come... ...come...
'They walked (in this direction) to the jungle to come
and hunt the pig.'

d) de ke a ko wasi di wagi
they want he come wash the car
'They want him to come and wash the car.'

ko and go preceding hondi 'hunt' and wasi 'wash' in
(53) and (54), like the similar formatives in Guyanese
Creole, Hawaiian Creole English and Providence Island
Creole, could easily be interpreted as complementizers, at
least from surface appearances. However, unlike the three
creoles discussed above, ko and go in SA exhibit none of the
properties of such a categorial status; rather, go and ko in
(53) and (54) are simply additional examples of directionals
or subordinate clauses as already discussed in previous
sections. If this is the case, to discuss these items again
would be redundant. Let it suffice that both types of ko and go also constitute instances of finite subordinate Ss into and of themselves.

Another structure which should be looked at are those like Bickerton's ...fo go help... 'for go help' in (50) from Hawaiian Creole English. He claims that fo and go in (50) are duplicate infinitive markers. At first glance, such also appears to be the case in SA. Consider (55).

55) mi ke fu go bai soni dá di mujee
   'I want for go buy something give the woman'

In the above S, the fu go bai 'for go buy' sequence could almost be a paraphrase of the Hawaiian Creole English string. However, neither fu 'for' nor go could be infinitive markers. First of all, the only such structures which we have seen up to now which could plausibly be infinitives are the dá Dative discussed in Chapter V and perhaps taa 'say, that' in Chapter IV. All others can be overtly and independently marked with either or both te (with a present time reading) or bi. At any rate, as we saw in section 4.2.5.2, fu 'for' is not a complementizer (or infinitive marker if this terminology is preferred), but a verb within a finite S.

This now leaves the status of go and bai 'buy' in (55) to determine. These too are verbs within finite Ss as
should be evident from the paradigm in (56) (which was acceptable to all speakers consulted).

56a) mi bi- ke fu go bai soni dá di mujee
   'I TNS-want for go buy something give the woman
   'I wanted to go buy something for the woman.'

b) mi ke bi- fu go bai soni dá di mujee
   ...TNS...
   'I wanted to go buy something for the woman.'

c) mi ke fu bi- go bai soni dá di mujee
   ...TNS...
   'I wanted to go buy something for the woman.'

d) mi ke fu go bi- bai soni dá di mujee
   ...TNS...
   'I wanted to go buy something for the woman.'

e) mi ke fu go bai soni bi- dá di mujee
   ...TNS...
   'I wanted to go buy something for the woman.'

So rather than fu 'for' and go in SA being infinitive markers in Ss such as (56), because of the overt TNS marking with bi, they are actually two verbs within finite Ss among a long string of other finite Ss.

And because the most embedded NP in (56), di mujee 'the woman', can dislocate to S-initial position, each S is preceded by an S' node.
57a) di mujee mi ke fu go bai soni dá t
   the woman...
   'It is the woman who I want to go buy something for.'

b) ambe mi ke fu go bai soni dá t
   who...
   'Who do I want to go buy something for?'

Thus, rather than perhaps a doubly-filled COMP position
which (50) from Hawaiian Creole English might have, the
structure of (55) is as in (58).

58) [S' [S mi ke [S' [S pro fu [S' [S pro go [S' [S pro
   bai soni [S' [S pro dá di mujee ]]]]]]]]
   'I want to go buy something for the woman.'

6.1.7 Summary

   All examples of ko/go discussed in the preceding
   pages, whether directional or what we have called
   subordinate, have exhibited the formal properties of
   subordinate sentential structures. Paramount among these is
   the possible appearance of the overt TNS marker bi and/or
   the ASP marker ta with a present reading. Because of the
   presence of these particles, both a [+TNS] designation and
   an EC subject are assured for ko/go clauses. In addition,
   because an embedded NP can dislocate to S-initial position
   as in (57), each clause in a complex S containing
   subordinate ko/go has a S' node preceding, exactly like (58)
   above.
Even though for each SA speaker ko/go is within a finite clause, there are still differences not only between speakers but within each individual speaker's output. These differences are particularly evident in the appearance of the overt TNS marker bi and point towards change taking place in the finite status of subordinate ko/go clauses. That is, bi is restricted in some environments and as such, ko and go clauses are slowly becoming infinitival. Such a condition has not yet occurred, however, mainly because of the categorical acceptability of the ASP marker ta with a present reading in all subordinate ko and go environments.

6.2 longtu 'around, circle'

Upon first glance, a S containing longtu 'around, circle' as in (59) gives the impression that it is another preposition such as ku 'with' and a 'at, on, etc.'.

59) i musu waka longtu di wosu
   you(sg) must walk around the house
   'You must walk around the house.'

For alongside (59), we have similar Ss with ku and a in apparently the same position as longtu.

60a) i musu waka a di wosu
    'You must walk in the house.'

   b) i musu waka ku di womi
      'You must walk with the man.'
However, as we have so often found to be true in SA, upon a closer look, *longtu* 'around, circle' could not possibly be prepositional, but, rather, is another instance of a serial verb within a finite sentential string.

As a main verb and as expected, *longtu* may follow the INFL particles *bi* and *ta* and have a verb copy of itself in S-initial position.

61a) Samo bi- longtu di wosu

   Samo TNS-circle the house
   'Samo had circled the house.'

   b) longtu Samo ta- longtu di wosu

   circle Samo ASP-circle the house
   'Samo is CIRCLing the house.'

When it functions in a subordinate position, these same features may also appear, albeit variably in the case of verb copy and the TNS particle *bi*.

62a) Samo waka ta- longtu di wosu

   Samo walk ASP-circle the house
   'Samo walked and is circling the house.'

   b) (*)Samo waka bi- longtu di wosu

   ...TNS...

   'Samo had walked around the house.'

   c) (*)longtu Samo waka longtu di wosu

   'Samo walked AROUND the house.'

With verb copy and overt TNS in (62b,c), only the least conservative Saramaka worked with rejected these Ss. This
informant likewise was the only one to reject the negative particle an preceding longtu 'around, circle'.

63a) (*)Samo waka an longtu di wosu
       ...neg...
       'Samo walked, but did not circle the house.'

b) *Samo waka na longtu di wosu
       ...neg...

However, as we see from (63b), all speakers reject the negative particle na. We are thus assured of the presence of a subject before longtu for most Saramaka (see section 5.1.2). For the majority of those I worked with, then, longtu has still not begun the sentential reduction process which characterizes other serials (e.g. taa 'say, that', dá Dative, some instances of ko 'come').

Now consider the dislocation pattern of the object complement of longtu 'around, circle' in (64), namely di wosu 'the house'.

64a) di wosu Samo waka longtu t
       the house Samo waka around
       'It was the house that Samo walked around.'

b) andi Samo waka longtu t
       what...
       'What did Samo walk around?'

b) *longtu di wosu Samo waka t
       around the house...
With longtu 'around, circle' in (64), di wosu 'the house' dislocates like any other NP complement of a verb which means, as we saw in previous discussions, that longtu and di wosu cannot prepose together as in (64c). This also means, along with (62) and (63), that longtu 'around' could not possibly be prepositional for any speaker, including the least conservative, since prepositions cannot strand (see sections 2.3.2.3 and 3.3.2). We must therefore conclude from this evidence that longtu is main-verbal within a finite S for at least the three more conservative speakers. From the dislocation pattern in (64), we can additionally conclude for the reasons stated in previous analyses that a COMP node must precede each sentential string containing longtu, resulting in a structure like that in (65) (for, again, the three more conservative speakers).

65)

```
S
  NP  VP
   |    |
    V   S'
       COMP
          S
            NP  VP
              |    |
               V  NP
                   |
                   di wosu
```

'Samo walked around the house.'
6.3 kaba 'finish'

Clause-final formatives with the meaning 'finish' such as SA kaba 'finish' (from Portuguese acabar 'finish') in (66) below are quite common in the world's creole languages.

66a) Molion fefi di wosu kaba
   Molion paint the house finish
   'Molion finished painting the house.'

b) Kofi njan di gania kaba
   Kofi eat the chicken finish
   'Kofi finished eating the chicken.'

Not only do they have a perfective function when clause-final, but in many instances they have also served as a source for the enrichment of the TMA repertoire. Bickerton (1981: 80) claims that these formatives have the following distribution among creole languages based on their degree of incorporation within INFL:

i) They occur clause-finally as in (66) above and are therefore not a part of INFL.

ii) They are incorporated into INFL but cannot co-occur with any other constituents of INFL.

iii) They freely combine with other INFL constituents.

Hancock (1984) presents numerous possible Stage (i) and (ii) "completives" (Hancock's terminology) from a wide variety of creoles. Among others, we find in Jamaican Creole that don 'done, finish' may function as a Stage (i)
clause-final perfective as in (67a) or an apparent Stage (ii) preverbal perfective in (67b) (albeit without supporting evidence for the latter conclusion).

67a) mi tyees i don
   I taste it done (translation added)
   'I have tasted it.'

67b) mi don tyees i
   I done taste it (translation added)
   'I have tasted it.'

Exemplifying Stage (iii) is Reunion Creole. Baker and Corne (1982: 56) claim that there can be little doubt that fini 'finish' (from French fini 'finished' or finir 'to finish') in (68) has fully integrated into INFL and may co-occur with the TNS particle la.

68) li la fini vi + NP (Barat et al. 1977: 26)
   he TNS ASP see (translation added)
   'He has seen NP.'

Whatever the case in other creoles, kaba 'finish' in SA cannot in any way be construed as having been incorporated into INFL; rather, there is strong evidence that clause-final kaba, as is true of other serials in SA, is a subordinate finite clause in its own right which also has a main verb counterpart. Dealing first with main-verbal kaba, notice that it optionally subcategorizes for either a NP or sentential complement.
69a) Samo kaba (di wosu)
Samo finish the house
'Samo finished (the house).'
b) Molion kaba (fefe di wosu)
Molion finish paint the house
'Molion finished (painting the house).'

And as we should expect for a main verb, either or both the TNS and ASP particles bi and ta can precede kaba and a copy may prepose to S-initial position.

70a) Molion bi- kaba fefe di wosu
Molion TNS-finish paint the house
'Molion had finished painting the house.'
b) Molion ta- kaba fefe di wosu
...ASP...
'Molion is finishing painting the house.'
c) Molion bi-ta kaba fefe di wosu
'Molion was finishing painting the house.'
d) kaba Molion kaba fefe di wosu
'Molion FINISHED painting the house.'

Observe in (70c) that kaba can only be main-verbal since if it were in INFL, there would be a disruption of the usual TMA order. In any case, that a copy of kaba can dislocate should be sufficient evidence for concluding that it is main-verbal since, as we saw in Chapter IV with the quasi-modals, the focus of a verb copy is the first feature to disappear when a verb reanalyzes to an INFL particle. With this
pattern, then the reader should now be aware of the dangers of a too hasty conclusion that a formative with a perfective meaning has integrated within INFL; a perfective main verb preceding a "bare" subordinate clause (i.e. a clause without an overt subject or TMA marking) is in the surface position for INFL particles (when others are not present) and could easily be mistaken for such. Independent justification is therefore needed before one makes such a conclusion.

Clause-final (i.e. serial) kaba 'finish' exhibits many of the same features as the phonologically identical matrix form. And as we have seen with other serials, the appearance of these features is once more variably acceptable. Concerning the particles within INFL (i.e. TNS and ASP), verb copy and negative placement, the following paradigm forms from the available data.

71a) Kofi fefi di wosu ta- kaba
   Kofi paint the house ASP-finish
   'Kofi painted the house and is (now) finishing.'

b) Kofi bi- fefi di wosu kaba
   ...
   'Kofi had finished painting the house.'

c) (*)Kofi fefi di wosu bi- kaba
   ...
   'Kofi had finished painting the house.'
d) (*)Kofi bi- fefi di wosu bi- kaba

...TNS...

'TKofi had finished painting the house.'

e) (*)kaba Kofi fefi di wosu kaba

'Kofi FINISHED painting the house.'

f) (*)Kofi fefi di wosu an kaba

...neg...

'Kofi painted the house, but has not finished.'

All speakers allow both ta with kaba (with a present reading) and bi with the matrix verb fefi 'paint' as in (71a,b). Most Saramaka worked with except, again, the least conservative speaker also allow bi either with kaba alone (71c) or jointly with fefi (71d). In addition, these same speakers, with the exception of the least conservative, allow kaba to copy in S-initial position (71e) and the insertion of the negative particle an preverbally (71f).

What these facts mean for the majority, and as concluded for the other serials, is that clause-final kaba is within a finite S in its own right and is preceded by a COMP node. The presence of bi of course indicates a governed subject position which, from the additional evidence that the derived negative particle an affords us concerning the presence of a subject, must be filled with pro. In relation to S', while there are no NP or PP complements following serial kaba which we can extract to prove the existence of a COMP node, the very fact that kaba copies at S-initial
position should be evidence enough. As we saw in sections 2.3.2.2 and 3.3.3 where verb copies are best looked at as not being subject to Move Alpha as are NPs and PPs, there is still a developing locality restriction on verb binding over S' nodes; generally the more linguistically conservative a speaker is the more he will allow such binding over S'. Thus, the variability of judgment with (71e) is predicted and is consistent with other judgment patterns of verb binding over S' nodes seen repeatedly throughout the text. In addition, while verbs are not subject to Move Alpha, as observed in Chapter III, they still are subject to Subjacency-like effects. That is, if a COMP node is filled as in (73b) of Chapter III (repeated below as (72)), then the binding of a verb copy with the verb is ungrammatical.

72) *wooko(i) Kofi si [ naase(j) [ di mujee bi- ta- work Kofi see at-where the woman TNS-ASP- wooko(i) t(j) ]]

If the Ss in (71) had simply a S subordinated to the matrix, then we might expect that verb binding in (71e) would be categorically ungrammatical since such binding would cross two S nodes, a Subjacency-like effect for such binding. Because binding is grammatical for the majority of speakers, serial kaba 'finish' should have a COMP node preceding and a structure something like (73).
But what about the one exceptional Sarmaka worked with? For this speaker, there is little evidence that kaba is verbal. Although we argued above that the inability of this speaker to bind a copy of kaba was due to the developing locality restraint on the process, it could still be due to kaba being less than verbal. In addition, while other speakers allow overt tensing with bi as in (71c) and the negative particle an as in (71f), thus indicating that there is an external subject argument present, the exceptional speaker does not. It may be true then, that for this one speaker, clause-final kaba has undergone reanalysis to perhaps an adverbial in much the same way that taa 'that' has apparently reanalyzed to a complementizer for this speaker (see section 4.3).

The above scenario could be correct except for the ASP marker ta in (71a) and another formative, derived from kaba, which we can use as an example of a former serial which has reanalyzed and now exhibits no verbal or sentential characteristics. The formative is the adverbial
kaa 'already', which like kaba 'finish', also appears clause-finally as in (74).

74) Magda fon di womi kaa

'Magda already hit the man.'

kaa 'already' is a reduced form of kaba 'finish' in the same way as taa 'that, say' is of taki 'say'. That is, just as taki changed to taa through syllable-final elision and vowel lengthening, so too did kaba change to kaa, probably sometime in the Nineteenth Century since there is no evidence of these forms in Schuchardt (1914) (he presents data from the late Eighteenth and very early Nineteenth Centuries). Now, as reported in the literature on serial verbs (i.e. Ansre 1966, Lord 1973, Schachter 1974, Givón 1975, etc.), often accompanying, or perhaps preceding semantic, syntactic and morphological change is phonological reduction of the formative in question. Thus taa 'that, say' reduced from taki 'say' as a part of the reanalysis process (refer to section 4.3) and kaa 'already' from kaba 'finish'.

While kaba 'finish' for most still allows TNS and ASP marking, verb copy and the imposition of the negative marker an as in (71) above, kaa 'already' exhibits none of these properties.
75a) *Magda fon di womi ta- kaa
Magda hit the man ASP-already
b) *Magda fon di womi bi- kaa
...TNS...
c) *kaa Magda fon di womi kaa
already... already...
d) *Magda fon di womi an kaa
...not...


e therefore is best looked at as an adverbial, although it
cannot occur clause-initially as can other adverbials such
as in (77b) since in this position, it would be interpreted
as ka 'where'.

76) kaa Magda fon di womi
where...
'... where Magda hit the man.'

77a) mi sa- go a lio awaa
I can-go to river now
'I can go to the river now.'

7. However, in a 1805 Bible translation into SA in
Schuchardt (1914), there are numerous examples of clause-
initial kaba as in (i).

i) Kaba tulu Sombre dissi bi libi na Jerusalem ...
and/and then all person who TNS live in Jerusalem ...
'And then all people who had lived in Jerusalem ...'

According to Pieter Seuren (p.c.), this kaba is best
translated as 'and' or 'and then' as reflected in the word-
for-word gloss. In any case, there is no evidence of this
form in synchronic SA and its relevance, if any, in the
development of clause-final kaa 'already' is unknown.
b) awaa mi sa-go a lio
    now...
    'Now I can go to the river.'

But like most other adverbials, it may not appear clause-internally.

78a) *mi awaa sa-go a lio
    I now can-go to river

b) *mi sa awaa go a lio

c) *mi sa-go awaa a lio

79a) mi wasi di wosu kaa
    I wash the house already
    'I washed the house already.'

b) *mi kaa wasi di wosu
    ...already...

8. The only example of an apparent clause-internal adverbial is with aki 'here' as in (i).

i) di kaapusa aki bi-de u mi
    the hat here TNS-be for me
    'The hat here was mine.'

However, locatives such as aki 'here' are often used as deictics within NPs. We have, for example, here in English appearing NP-internally as in (ii).

ii) This here car is mine.

Thus for aki 'here' to appear in NPs in SA is not unusual. It is also significant that aki appears postpositionally, or the very same position occupied by hen 'HE, SHE, IT' with focused NPs. (i) thereby independently justifies our conclusion in Chapters II, III and IV that hen accompanies the NP in COMP position rather than occupying a node different from a focused NP.
There are, moreover, other features of the kaa/kaba dichotomy which may explain the motivation for the original change. We note in synchronic SA that kaba 'finish' co-occurs only with those matrix verbs which imply action of a non-instantaneous duration. Thus as in (66) and (71), kaba 'finish' may appear with verbs such as fefi 'paint' which portrays a continuing action whose completion could be in doubt, but it cannot appear with verbs whose action is instantaneous and of whose completion there is no doubt.

80) *Magda fon di womi kaba

Magda hit the man finish

Only the adverbial kaa 'already' as in (74) may appear in contexts such as (80). However, kaa, for its part, is not so restricted; it may co-occur, as far as is known, with any verb-type including those such as fefi 'paint'.

81) Molion fefi di wosu kaa

Molion paint the house already

'Molion already painted the house.'

Concerning the Saramaka with the exception features with kaba 'finish', his impetus for reanalysis could be that of analogy with kaa 'already' and other adverbials. Whatever the motivation, the fact remains that he still allows the ASP marker ta with a present reading with kaba in (71a) and as such, based on the discussion in Chapter II,
kaba should still be sentential and finite. And if this speaker cannot copy kaba due to the developing locality restriction, which seems likely because kaba should still be verbal based on the presence of the ASP marker ta, then he too should have a COMP node preceding and a structure like that portrayed in (73).

6.4 pasa 'pass'

Just as perfective kaba 'finish' and serial INSTRs have apparently developed or incorporated non-serial alternatives (i.e. kaa 'already' and Instrumental ku 'with'), so too do we find that the comparative serial pasa 'pass' has a non-allomorphic alternative, moon 'more'. And just as kaa 'already' and ku 'with' appear in environments in which their serial counterparts occur as well as those restricted to them, so too does moon 'more' have a comparative function and appears with those predicate adjectives/verbs both available to and restricted from pasa 'pass'. Let's begin by first discussing pasa.

Serial pasa 'pass' with a comparative reading occurs with those formatives with the feature [+V] which imply movement of some sort.

82a) a bigi pasa di mii

he big pass the child

'He is bigger than the child.'
b) mi baa laanga pasa mi oto baa
my brother tall pass my other brother
'My brother is taller than my other brother.'

c) Kofi kule hesi-hesi pasa di womi
Kofi run fast-fast pass the man
'Kofi ran much faster than the man.'

d) ?mi baa taanga pasa mi
my brother strong pass me
'My brother is stronger than me.'

e) *a piki pasa mi
he small pass me

f) *a koni pasa di sembe
he smart pass that person

(82a,b,c) with bigi 'big', laanga 'tall and kule hesi-hesi 'run very fast, run rapidly' may co-occur with pasa 'pass' because they imply movement of some sort. taanga 'strong', on the other hand, which borders on implying an enlargement of size (i.e. movement through growth), is doubtful and piki 'small' and koni 'smart' which have no direct relation to movement are ungrammatical with pasa 'pass'.

Non-comparative pasa is main-verbal and also may follow motion verbs in subordinate contexts.

83) a pasa wan toloki
he pass a truck
'He passed a truck.'
84a) a waka pasa di sembe
he walk pass the person
'He walked past the guy.'

b) Kofi kule hesi-hesi pasa di womi
Kofi run fast-fast pass the man
'Kofi ran rapidly and passed the man.'

In (84b), notice that on the surface this is the same as (82c). However as Rountree and Glock (1982: 90,163) point out, hesi 'fast' may reduplicate when it is used adjectively (presumably with added intensity) as in (82c) or always must reduplicate when it is used adverbially as in its function in (84b). Syntactically, this dichotomy results in pasa 'pass' being interpreted as a comparative in (82c), but simply a subordinate verb without a comparative function in (84b).

As a main verb and, again, as we should expect with this designation, pasa 'pass' may be preceded by the TNS and ASP particles bi and ta and/or the negative particle an, and it may copy in S-initial position.

85a) a bi- pasa wan toloki
he TNS-pass a truck
'He had passed a truck.'

b) a ta- pasa wan toloki
..ASP...
'He is passing a truck.'
c) an pasa wan toloki
   he-not...
   'He didn't pass a truck.'

  d) pasa a pasa wan toloki
     pass...pass...
     'He PAssed a truck.'

However, none of the Saramaka worked with exhibited all of
these features with subordinate or serial pasa 'pass'. For
one, none but the most conservative speaker allow overt TNS
and then only when TNS does not co-occur in the matrix
clause.

86a) a bi- bigi pasa di mii
    he TNS-big pass the child
    'He was bigger than the child.'

  b) (*)a bigi bi- pasa di mii
    he big TNS-pass the child
    'He was bigger than the child.'

  c) *a bi- bigi bi- pasa di mii
    ..TNS.. ..TNS..

87a) a bi- waka pasa di sembe
    he TNS-walk pass the person
    'He had walked and passed the guy.'

  b) (*)a waka bi- pasa di sembe
    he walk TNS-pass the person
    'He had walked and passed the guy.'
c) *a bi- waka bi- pasa di sembe

...TNS... TNS...

And none allow either of the negative particles an or na to precede pasa.

88a) *a bigi an pasa di mii

...neg...

b) *a bigi na pasa di mii

...neg...

89a) *a waka an pasa di sembe

...neg...

b) *a waka na pasa di sembe

...neg...

On the other hand, all permit the ASP particle ta with pasa 'pass', although with ta appearing only on the lower clause, there would be different TMA marking and pasa would no longer be considered a serial.

90a) a bigi ta- pasa di mii

...ASP...

'He is big and is passing the child.'

b) a waka ta- pasa di sembe

...ASP...

'He walked and is passing the guy.'

And all but the least conservative speaker can copy pasa 'pass' in S-initial position.
91a) (*)pasa a bigi pasa di mii
   pass... ...pass...
   'He is bigger THAN the child.'

b) (*)pasa a waka pasa di sembe
   pass... ...pass...
   'He walked and PASSed the guy.'

But all speakers can dislocate the most embedded NPs to S-initial position.

92a) di mii a bigi pasa t
    the child...
    'It is the child that he is bigger than.'

b) ambe a bigi pasa t
   who...
   'Who is he bigger than?'

93a) di sembe a waka pasa t
    the person...
    'It was the guy that he walked past.'

b) ambe a waka pasa t
   who...
   'Who did he walk past?'

Although significant reduction has apparently taken place with subordinate and serial pasa 'pass' for most speakers as exemplified by (86) through (93), pasa should nevertheless still be verbal within a finite S and be preceded by a COMP node. This interpretation of the data is
aided by the presence of *hesi-hesi* 'rapidly' in (84b). As we saw in section 6.3 with *awaa* 'now' and *kaa* 'already', many adverbs may appear only clause-initially and/or finally, but never clause-internally (but see Footnote (8) in this chapter for the data on *aki* 'here'). Thus *hesi-hesi* 'rapidly', as far as is known, is one of those adverbials which may only appear external to clauses. If this is true, although more work obviously needs to be done, then *hesi-hesi* 'rapidly' reinforces the contention here, and the conclusions reached concerning other serials with similar characteristics as *pasa*, that *pasa* is within a sentential configuration. If *pasa* 'pass' were not within a clause structure, then adverbial *hesi-hesi* 'rapidly' could not appear in the position it does in (84b). *Ss* with either subordinate or serial *pasa* should therefore have the structure as in (94).

94)

```
                         S
                        /\   \
                       NP       VP
                            /\   \
                           V       S'
                              /\   \\
                             COMP       S
                              /\   \
                             NP       VP
                                    /\   \\
                                   V       NP
                                  /\   \\
                                 a     pro pasa    di mii

'He is bigger than the child.'
```
Before continuing with moon 'more', it should be mentioned that the reanalysis process has apparently progressed much further for the comparative pasa 'pass' in Sranan than it has for pasa 'pass' in SA. Sebba (1982) points out, albeit without supporting data, that pasa 'pass' in Sranan is still verbal for some but has changed to a preposition for others. If this is true, then the comparative pasa 'pass' in SA should reflect a deeper, more unchanged form of creole than Sranan. In the following discussion on moon 'more', such a possibility will be additionally reinforced.

6.4.1 moon 'more'

In considering moon 'more', we observed that it may appear in those contexts both acceptable and denied to pasa 'pass'. From this perspective, when we substitute moon 'more' for pasa 'pass' in (82), the following pattern results in (95) below.

95a) a bigi moon di mii
   he big more the child
   'He's bigger than the child.'

b) mi baa laanga moon mi oto baa
   my brother tall more my other brother
   'My brother is taller than my other brother.'
c) Kofi kule hesi-hesi moon di mii
    Kofi run fast-fast more the child
    'Kofi ran much faster than the child.'

d) mi baa taanga moon mi
    my brother strong more me
    'My brother is stronger than me.'

e) a piki moon mi
    he small more me
    'He's smaller than me.'

f) a koni moon di sembe
    a smart more the person
    'He's smarter than that guy.'

Notice in (95) that moon 'more', unlike pasa 'pass', is apparently acceptable in all types of predicate adjective/verbal contexts.

The only difficulty in an analysis of moon 'more', as was the case in Sebba's (1982) discussion of moro 'more' in Sranan, is in determining its categorial status. While moon cannot co-occur with ta or bi, cannot copy in S-initial position, nor be preceded by either of the negative particles an or na, still the dislocation pattern for some speakers indicates a verbal status. First, notice in (96) the absence of the aforesaid verbal properties in relation to moon 'more'.
96a) *a bigi ta- moon di mii
    he big ASP-more the child
b) *a bigi bi- moon di mii
    ...TNS...
c) *moon a bigi moon di mii
    more... ...more...
d) *a bigi an moon di mii
    ...neg...
e) *a bigi na moon di mii
    ...neg...

As we can see in (96), there is no indication that moon
'more' is in any way verbal. But now consider the
dislocation pattern of di mii 'the child' by the four main
consultants. Because they had three different patterns
among them (with two speakers sharing (97)), we present each
in (97) through (99).

Speaker 1
97a) di mii a bigi moon
    the child he big more
    'It is the child who he is bigger than.'
b) ambe a bigi moon
    who he big more
    'Who is he bigger than?'
c) *moon di mii a bigi
    more the child...
Speaker 2
98a) *di mii a bigi moon
    the child...
   b) ambe a bigi moon
       'Who is he bigger than?'
   c) *moon di mii a bigi
       more the child...

Speaker 3
99a) *di mii a bigi moon
    the child...
   b) *ambe a bigi moon
       who...
   c) moon di mii a bigi
       more the child he big
       'It is bigger than the child that he is.'

(97) exhibits the same extensively discussed pattern as other verbs with complement NPs. Although in (96c) we saw that moon 'more' cannot copy (a fact which may be explicable from the subordinate nature of moon - note subordinate fu 'for' in section 4.2.5.2), still the stranding of moon in (97a,b) is unlike prepositions but like verbs. Moreover, the inability of these speakers, the most conservative, to focus moon di mii 'more the child' as a single constituent such as can be done with prepositional phrases, reinforces the verbal interpretation. However, if moon 'more' is verbal for these speakers, it cannot be
within a finite clause because they allow no TNS or ASP markers. For them, therefore, the configuration for the Ss in (97) should be as in (100) with PRO as a subject.

100)

\[
S \\
\text{NP} \quad \text{VP} \\
\quad V \\
\text{COMP} \quad S \\
\quad \text{NP} \quad \text{VP} \\
\quad \text{a bigi} \quad \varnothing \quad \text{PRO} \quad \text{moon di mii}
\]

'He's bigger than the child.'

Speaker 2 is inconsistent; while this speaker allows \textit{wh}-forms to prepose but rejects \textit{wh}-type movement of R-expressions, she also disallows \textit{moon di mii} 'more the child' to prepose as a single constituent. What seems to be the case here is that the pattern in (98) represents what Ansre (1966) would call a verbid. Today we do not have to appeal to such a nebulous concept since such reductions in verbal properties are predicted by Lightfoot's (1979) 'exception features' and Transparancy Principle. At some point with the continual elimination of such features, a formative will reanalyze. It seems that \textit{moon} 'more' must soon reach such a stage since with no TNS and ASP markers, no negation,

9. See the discussion in Chapter IV and Footnote (11) in that chapter.
no copy, and now with the impossibility of focussing an object R-expression, there do not seem to be any more such empirically observable features left that can be eliminated. There are, of course, the θ-properties and Argument structure associated with verbs which would necessarily change before reanalysis, but we cannot empirically observe these types of changes, especially in the case of ECs. So far as is known, then, moon 'more' has reached the end of possible perceptible reductions and the only other feasible step left is reanalysis.

Reanalysis will be shown to have taken place when we discuss (99), but for the present, the remaining unanswered question is why moon continues to allow wh-forms to dislocate as in (98b), but as shown in (98a), does not permit R-expressions to do so. One possible answer may be found with Robin Belvin's (1985) ideas presented in Footnote (4) of Chapter III and Derek Bickerton's (p.c.) adjoiner. Briefly, Belvin proposes that in the unmarked setting only verbs are proper governors. Thus in SA which has the unmarked setting, verb complements may dislocate but objects of prepositions may not do so because a preposition is not a proper governor. Now Bickerton hypothesizes that the reason for the Empty Category Principle (i.e. proper government) is to make it easier to identify the antecedent of a trace; only certain constituents may properly govern and so this
limits the range of possible elements which may dislocate. Consequently, possible antecedents of a trace are limited.

From Belvin and Bickerton's observations, we might further hypothesize both that the ability to properly govern is the last verbal property to disappear and that such change, and all change for that matter, begins with the elimination of the most discernible and characteristic features of a given category (hence the eradication of *bi* before *ta* in the first stage of the reduction of the finite status of a *S* in the serials and complement structures studied in this text). If such change continues hierarchically through the less characteristic features, then we might expect that the traces of *wh*-forms, which are representative of a range of *R*-expressions but which are not *R*-expressions themselves, would continue to be properly governed after the traces of *R*-expressions cease to be. Thus *wh*-form dislocation may be the last observable feature before reanalysis of a *V-NP* combination to a *PP*. If this is true, then *moon 'more'* in (98) is still a verb and has the structure as in (101) (identical to (100)).
Finally (99) unambiguously has the pattern of a PP as seen in section 2.3.2.3 and elsewhere. An object of a preposition may not dislocate by itself and strand the preposition as in (99a,b), but can only prepose as a single constituent like in (99c). For these reasons, (99) has the structure as in (102)

In once again comparing Sebba's (1982) analysis and conclusions for Sranan with those above, we find almost identical patterns as (97) and (99) with *moro* 'more'. First, like SA, *moro* 'more' also exhibits few of the sentential and/or verbal features usually found with SA serials. That is, according to Sebba (p. 11), *moro* 'more'
takes no TNS, ASP or negation markers, but a few Sranan speakers can copy the item as in (103).

103) na moro Kofi bigi moro mi (Sebba 1982: 12)

\[ \text{is more Kofi big more me} \]

'Kofi is bigger THAN me.' (translation added)

Also possible, perhaps for the same speakers who find (103) acceptable, is a dislocation pattern like (97) for SA. Roughly 40% of the Sranan speakers whom Sebba consulted accepted (104a), while approximately the same percentage rejected (104b).

104a) (*)suma Kwaku bigi moro (Sebba 1982: 12)

\[ \text{who Kwaku big more} \]

'Who is Kwaku bigger than?'

b) (*)moro suma yu bigi (Sebba 1982: 14)

\[ \text{more who you big} \]

'Who are you bigger than?'

In turning the figures around, then 60%, or the majority, rejected (104a) but accepted (104b). These Sranan speakers thus have a pattern like (99) and, as Sebba concluded, moro 'more' should thereby be a preposition since, like SA, Sranan does not permit preposition stranding.

From (97) through (104), note that unlike Sranan, the minority, or only one in four SA speakers have the prepositional pattern in (99). From this evidence, combined with the behavior of pasa 'pass' in SA and psa 'pass' in
Sranan, it should be obvious that SA has changed less than Sranan if, in fact, they had comparable structures at one time.

6.5 Periphrastic Serials and Control Revisited

This final analytic section of the chapter and the text will look at some of those sentential units which we have termed periphrastic serials. These are the serials which divide up an action into its (possibly sequential) component parts. Thus, as an alternative to \( X \text{kii} Y \) 'X killed Y', the Saramaka can also say \( X \text{mbel} Y \text{dede} \) 'X made Y dead; X killed Y'. Sebba (1984a,c) points out that because of a creole language's characteristically limited vocabulary and the normal absence of derivational morphology,¹⁰ one option that such a language has for increasing its referential repertoire is through serialization. Thus we use the term 'periphrastic' for these serials since the Saramaka and other creole speakers combine specific verbs (in the context of the appropriate serial structures) to give expression to concepts which are not represented by a single R-expression.

Also included in this section will be a second look at control in SA. In Chapter IV we briefly discussed

¹⁰ Indeed, there is usually a lack of any type of morphology, either inflectional or derivational. But see Muhlhausler (1976, 1980) for ways in which creoles develop morphological systems.
subject control and commented that a more thorough account would be forthcoming in Chapter VI. Here we will expand the data-base to include examples of object control. We will then present some principles which specify when an EC pro is possible in SA and how to determine its antecedent.

6.5.1 Periphrasitic Serials

While periphrastic serials were not specifically sought out in the data collection process, many such examples were nevertheless spontaneously produced. Some of these we have already seen. In the ko/go 'come/go' section of this chapter, we observed that tsa NP 'carry NP' combines with go and ko 'come' to form the verbal concepts 'take NP to' and 'bring NP to' respectively. Other similar periphrases result in such combinations as subi go 'ascend + go, climb up'; toona ko 'turn + come, return'; go disa 'go + leave, to leave for a long time' and ko weki 'come + awake, to wake up'. Some such combinations without ko or go include bendi tei 'bend + take, pick up' and manda kai 'send + call, send for'.

As with the other serials discussed in this work, in the above verbal combinations there is again evidence that each verb is contained within a finite clause. (We have already looked at serial ko 'come' and go in section 6.1.) In regard to bendi tei 'pick up', manda kai 'send for' and mbei NP dede 'make NP dead', there is limited data only for
bendi tei and mbei NP dede, so we are forced to limit the discussion to these.

While there is no available evidence of bi with tei 'take' in bendi tei 'pick up', we do find that the ASP marker ta with a present interpretation is readily admitted. 105) Obeson bendi ta- tei di peni

Obeson bend ASP-take the pencil

'Obeson bent and is taking the pencil.'

Although (105) is no longer a periphrastic serial because of different temporal matrices, still ta with tei is a good indication that tei di peni 'take the pencil' constitutes a finite clause. Also supporting this contention is the fact that a copy of each verb can only dislocate separately and never together.

106a) bendi Obeson bendi tei di peni

bend... ...bend...

'Obeson PICKed up the pencil.'

b) tei Obeson bendi tei di peni

take... ...take...

'Obeson picked UP the pencil.'

And based on previous analyses, the fact that di peni 'the pencil' can prepose makes it highly likely that the subordinate clause which includes tei 'take' is preceded by a S' node.
107a) di peni Obeson bendi tei t
    the pencil...
    'It was the pencil that Obeson picked up.'

b) andi Obeson bendi tei t
    what...
    'What did Obeson pick up?'

With mbei NP dede 'make NP dead', we have no data of
the TNS and ASP markers bi and ta co-occurring with dede.
However, we do find that if the subject NP of dede 'dead' is
a pronominal, it is Nominatively Case-marked.

108) Kofi mbei a dede
    Kofi make he dead
    'Kofi killed him.'

From previous analyses, and especially that of the
perception verbs in section 2.2, we observed that a
Nominatively-marked subject indicates a [+TNS] feature in a
clause. a dede 'he is dead' in (108) is therefore finite.
Moreover dede copies in S-initial position for the majority
of Saramaka worked with.

109) (*)dede Kofi mbei a dede
    dead... ...dead
    'Kofi made him DIE.'

Based on the reasoning for concluding that serial kaba
'finish' has a COMP node preceding (see that section), then
dede 'dead' should also have such a node as illustrated in
(110).
110) Kofi mbei [S' [S a de] ]
   'Kofi made him die.'

6.5.2 Control Revisited

Other periphrastic serials and/or complement structures which we have not yet looked at deviate from the usual coindexing and control patterns (i.e. subject to subject) which have been the norm up until now. In the serials in this section and chapter and in the other serials and complement structures analyzed in Chapter IV and onwards, all have manifested subject to subject coindexing when there were EC subjects. However, as also mentioned in the fu 'for' section of Chapter IV, other binding relations with ECs are possible. For one, Jan Voorhoeve (p.c.) mentioned that (111) below is unambiguously an example of object control in SA.

111) mi saka di buuku (f)u mi te go dou a mi kini
   I pull the pants for me until go arrive to my knees
   'I pulled my pants on until they came to my knees.'

The semantics of (111) stipulate object control of the EC subjects of both go 'go' and dou 'arrive'.

Now note the dislocation pattern of the subordinate elements after (f)u mi 'for me' in (111).
Quite surprisingly, the two most conservative speakers allow a copy of *te 'until' in S' in (112c). What this might indicate is that like other formatives such as *fu 'for', *te 'until' could also be verbal. That *a mi kini 'to my knees' and the corresponding wh-form, *naase 'to-where', can focus "over" *te 'until' reinforces such a judgment. However, if *te 'until' is either a subordinating conjunction or a preposition, then based on previous analyses, no movement would be possible (see sections 4.2.5.2 and 4.3). If *te 'until' can additionally be tensed like *fu 'for', then not only would *te be verbal, but it would be within a finite clause as well. Moreover, looking at the translations for
te in Rountree and Glock (1982: 170), they note that it "marks extent." From this and the supporting syntactic evidence in (112c), it could be that the Saramaka conceptualize te in contexts such as those above as something like 'extend' rather than 'until', with di buuku (f)u mi 'my pants', in (111) at least, controlling its EC subject.

This same object NP likewise is coindexed with and controls the EC subjects of go 'go' and dou 'arrive' (which should be pro if the clauses are finite). In discussing (111) with various Saramaka, when asked andi go 'What went?' and andi dou 'What arrived?', they all answered di buuku u mi go 'my pants went' and di buuku u mi dou 'my pants arrived', respectively. And these clauses are also preceded by a S' clause since a mi kini 'to my knees' and the corresponding wh-form naase 'to where' may grammatically prepose to S-initial position as shown in (112a,b). The most plausible structure for (111), subject to future confirmation, is thereby (113).

113) [S' [S mi saka di buuku u mi(i) [S' [S pro(i) te [S' [S pro(i) go [S' [S pro(i) dou a mi kini ]]]]]])]

'I pulled my pants on until they came to my knees.'

Now let's consider some additional but similar data in (114) through (117) below.
114a) i hepi di womi lesi di buku
   you(sg) help the man read the book
   'You helped the man read the book.'

b) i hepi en lesi di buku
   ...him...
   'You helped him read the book.'

c) i hepi en an lesi di buku
   ...neg...
   'You helped him not to read the book.'

115a) mi manda Kofi go njan di paabi
   I send Kofi go eat the porridge
   'I sent Kofi to eat the porridge.'

11. Sebba (1984a) discusses various control possibilities in Sranan. Among those exemplifying object control is (i) below.

i) Kofi ben yagi a dagu go na ini a oso (p. 35)
   T/A chased the dog go LOC inside the house
   'Kofi chased the dog into the house.'

In reviewing the available SA data, we find the almost identical S in De Groot (1977: 142) seen in (ii) below.

ii) Samo jaka di ahalakpakpa go a doo puu de
    Samo chase the cockroach go at outdoors remove there
    'Samo chased the cockroach outdoors.' (translations added)

However, because there is no accompanying data available which would help in determining its structure and related properties, (ii) was not included in the text as an example of object control.
b) mi mandeen go njan di paabi
...send-him...
'I sent him to eat the porridge.'

c) mi mandeen an go njan di paabi
'I sent him not to eat the porridge.'

d) mi bi- mandeen go njan di paabi
...TNS...
'I had sent him to eat the porridge.'

e) mi mandeen bi- go njan di paabi
...TNS...
'I had sent him to eat the porridge.'

f) *mi bi- mandeen bi- go njan di paabi
...TNS... ...TNS...

116a) mi hakisi en faa njan di njanjan
...fu+a...
I ask him for-he eat the food
'I asked him to eat the food.'

b) mi bi- hakisi en faa bi- njan di njanjan
...TNS... ...TNS...
'I had asked him to eat the food.'

c) mi hakisi en faan njan di njanjan
...for-he-not...
'I asked him not to eat the food.'
d) *mi hakisi en/a (go) njan di njanjan
   I ask him/he (go) eat the food

117a) mi duwengi en faa njan di gbamba
   I force him for-he eat the meat
   'I forced him to eat the meat.'

b) mi duwengi en faa bi- njan di gbamba
   ...TNS...
   'I had forced him to eat the meat.'

c) mi duwengi en faan njan di gbamba
   'I forced him not to eat the meat.'

d) *mi duwengi en/a (go) njan di gbamba
   I force him/he (go) eat the meat

In each data-set above, the matrix verb has the
subcategorization frame [__ NP S']. That there is an object
NP is evident from the Objectively-marked en 'him' following
each matrix verb. An S' node is also necessary because of
Subjacency since in each subordinate clause, the complement
NP can prepose to S-initial position.

12. The symbol / with en/a 'him/he' again means
   'or' and should not be confused with any particular
   formalism in contemporary grammatical models. The go in
   parentheses was included just in case this particular S
   would have been grammatical with the item based on the
   pattern in (115). That data (i.e. (115)) would be
   ungrammatical without go.

i) *mi manda Kofi njan di paabi
   I send Kofi eat the porridge
118a) di buku i hepi en lesi t
       the book...
       'It was the book that you helped him read.'

b) di paabi mi mandeen go njan t
       the porridge...
       'It was the porridge that I sent him to eat.'

c) di njanjan mi hakisi en faa njan t
       the food...
       'It was the food that I asked him to eat.'

d) di gbamba mi duwengi en faa njan t
       the meat...
       'It was the meat that I forced him to eat.'

Note additionally in (115-117c) that the negative particle an, which only occurs when there is a subject present (see section 5.1.2), may appear in each subordinate clause. Note also that the overt TNS marker bi is possible in (115-117), thereby indicating that the subject position is governed. The subject of these clauses is thereby pro. Concerning (114), if the derived negative particle an is only allowed after governed subject positions, then it should be the case that the clause containing lesi 'read' is likewise finite. If, therefore, lesi 'read' is finite, then it too has pro as a subject.

Looking now at the binding relations in (114) through (117), the following coindexing pattern was observed (with pro in (119a) contingent on lesi 'read' being finite):
119a) [i hepi di womi(i) [S' [S pro(i) lesi di buku ]]]

'You helped the man read the book.'

b) [mi manda Kofi(i) [S' [S pro(i) go [S' [S pro(i) njan di paabi ]]]]]

'I sent Kofi to eat the porridge.'

c) [mi hakisi en(i) [S' [S pro fu [S' [S a(i) njan di njanjan ]]]]

'I asked him to eat the food.'

d) [mi duwengi en(i) [S' [S pro fu [S' [S a(i) njan di gbamba ]]]]

'I forced him to eat the meat.'

In each S of (119), the subjects of the most embedded clauses, whether pro or a 's/he/it', are coindexed...

13. Concerning the structures in (119c,d), see section 4.2.5.2 on complementizer-like fu 'for' in Chapter IV for a justification. Turning to the pro subject preceding fu 'for', it was not coindexed with an antecedent since it is not entirely clear what the antecedent is or if it is an impersonal EC (see Footnote (19) of Chapter IV).

In a related question, we wonder why there is no empty subject in the clauses following fu 'for' in (119c,d). However, if we suppose that control of pro is subject to Subjacency-like effects as we concluded for verb copy in Chapter III and Koster (1984) claims is true of PRO, then if the EC subject of fu has some arbitrary reference and is not coindexed with the matrix object, this may be sufficient to block control of the remaining EC subjects by that object. The only alternative is for there to be overt subjects in these positions. Alternatively, in (119a,b) there are no fus and thereby no ECs with arbitrary reference. There is therefore no Subjacency-like effect and the subordinate verbs acceptably have EC subjects controlled by the higher objects.
with the matrix object NP. Following Principle B of binding theory, these subordinate subjects, both [+pronominal], are free in their governing category, S. As discussed in Chapter IV, this means in part that they are proximate if coindexed with an element outside their governing category or obviate if they are not so coindexed. Since the examples discussed here exhibit quite cohesive and simultaneous actions, then the fact that the subordinate subject pronominals have specific antecedents and are proximate should not be surprising and, indeed, should be expected because of their close temporal connection.

The appearance of an EC pro itself seems to be related to the intersection of two complementary discourse principles: 1.) the Avoid Pronoun Principle, and 2.) what we will call the Avoid Ambiguity Principle. The first stipulates, according to Chomsky (1982: 26) that "... pronominals have phonological features only where they must..." Thus, since the antecedents of the pro subjects in (119a,b) are not in doubt, the overt presence of a pronominal would be superfluous. The second principle limits pros to those environments where their presence would not cause ambiguity among possible antecedents (i.e. disjoint reference). In (119a,b), each pro subject can each have only one plausible antecedent, the object of the matrix clause, and so pro may appear. Furthermore, although there are overt pronominal subjects in (119c,d), by the Avoid
Ambiguity Principle, these pronouns should have the option of being replaced with pro since no ambiguity would ensue. There is no data to confirm this, but the principle seems sound in any case since as we saw in Chapter V with (15) (repeated here as (120a)) and in Byrne (1985), the subordinate subject of an Instrumental serial may either be an overt pronoun or pro for some speakers.

120a) (*a(i) tei goni a(i) suti di pingo
   he take gun he shoot the pig
   'He shot the pig with a gun.'

b) a(i) tei goni pro(i) suti di pingo
   'He shot the pig with a gun.'

For others, only (120b) is grammatical. In any event, the point is that pro is eligible to appear because it would not be ambiguous; there is only one plausible antecedent for pro in the matrix clause of (120b).

The actual determination of the antecedent for a given pro seems to entail one other principle, some form of the Minimal Distance Principle (MDP) first mentioned by Rosenbaum (1967). In relation to SA, the principle roughly states that the first appropriate NP which c-commands an EC pronominal controls that EC. Note that the definition includes the term 'appropriate'; this is to ensure that the controlling NP meets the selection restrictions imposed by the clause containing the EC.
The mechanism of the MDP is fairly simple. In (120b), for example, pro "peers up", so to speak, to find the nearest NP which can acceptably function as the Agent of suti 'shoot'. The nearest NP which c-commands the pro in (120b) and meets the above selectional restrictions is the matrix subject pronoun a 'he'. Thus a 'he' controls the EC subject in (120b). 14

In an example of object control, (119b) (repeated here as (121)), again meets the criteria for selecting the antecedent of its subordinate subject ECs.

121) mi manda Kofi(i) [S' [S pro(i) go [S' [S pro(i) njan di paabi ]]]
'I sent Kofi to eat the porridge.'

The subject of each subordinate clause above should at least be [+animate] since presumably something must be alive for it to go under its own volition and, similarly, only those things which contain that feature have the need and ability to eat. In "looking up" for the NP which c-commands each

14. Based on the logic of the Saramaka, goni 'gun' could not possibly be coindexed with either the overt a 'he' in (120a) or pro in (120b). goni 'gun' has the feature [-animate] and thereby cannot have the volition to fire a gun. But a 'he' has the features [+animate, +human] and so does have the ability to fire a gun. a 'he' is therefore the only possible antecedent for the subject of the subordinate clause. As an afterthought, it is interesting that the logic of the Saramaka coincides with the NRA refrain that "guns don't kill people; people kill people."
pro and contains the feature [+animate], we find two candidates: Kofi and mi 'I'. Because Kofi is the nearest, then this is the NP, and not mi 'I', which controls each pro.15

6.6 Summary

Throughout this chapter we have seen additional instances of serials and serial structures. And just as in previous chapters, the properties manifested by these serials once again strongly lead to one conclusion: that in most serial-types a particular serial string is best looked at as a series of finite subordinate clauses. That is, because of the properties of overt tensing with bi and/or the appearance of the ASP particle ta (or nan-) with a present reading, negation with en, and serial verb copy, most of the instances of serial verbs in this chapter are finite Ss. I say 'most' because we did see one serial, moon 'more', which most likely is within an infinitival clause for some speakers and is a preposition for others. In fact,

15. It should be noted that the MDP does not work with at least paamusi 'promise'. That is, in (i) below, by the MDP en 'him' should control the EC subject of the subordinate clause.

i) a paamusi en pro wooko a di keiki
   he promise him work at the church
   'He promised him to work at the church.'

However, as is evident from the import of the sentence, a 'he' controls the subordinate EC subject.
if the analysis of moon 'more' is correct, then it represents the most radical change of the serials studied in this chapter; while all the serials studied show at least some minimal indication of change towards a nonfinite status for some speakers, only moon 'more' has categorically achieved this result for all speakers (with the exception of the one Saramaka who has reanalyzed the item to a preposition). We will now review the features of synchronic SA that we have seen throughout this work and then consider some of their implications in the next and last chapter.
CHAPTER VII

CONCLUSIONS

From the preceding six chapters but especially Chapter I where the major questions to be discussed were first raised, there are four general but interrelated conclusions that we can reach in this chapter. The first deals with the grammars of synchronic and reconstructed SA. Falling out from this is the question of whether the grammatical properties of SA point toward a particular canonical syntax for radical creolization.

A second area deals with the nature of serialization in SA and in general. The pertinent question here is what motivated serial verbs in SA as compared with West African and other languages. From a different angle, we would want to investigate whether serialization in SA is a necessary adjunct of its syntax; this would take the form of determining if there is anything about the nature of SA core grammar which necessitated and necessitates serial structures.

The third area of investigation is actually a continuation of the first and second. That is, is there anything about the syntax of SA and, in particular, in the nature of its serial structures which can help resolve the
substrate-universals debate? In other words, are the syntactic properties of SA different from or similar to West African languages?

The final area deals with markedness. Throughout the body of the text, certain structures were commented upon in relation to others' views of their marked nature. We will briefly review these structures and additionally comment upon them. Also pertinent to the markedness question is the number of rules and lexical categories needed to describe synchronic and reconstructed SA. These concerns and the previous ones mentioned will be discussed separately, but in the order presented here.

7.1 Synchronic and Reconstructed SA and Creolization

While X-bar cross-categorial regularities are the normally accepted mode of expressing phrase structure in many contemporary grammatical models (see Chapter I), still phrase structure rules (or base rules if that terminology is preferred) developed in Chomsky (1965) and later are valuable expository and illustrative tools and as such, are the type of analytic representation which will be used here. The reader can refer to Bickerton (1984) and Bickerton and Byrne (forthcoming) for an X-bar account of phrase structure in SA and creole languages in general.
7.1.1 Synchronic SA

Based on the description of SA in Chapters II through VI, the following phrase structure rules are necessary to generate the language's D-structure.

1) S $\rightarrow$ NP INFL VP
2) NP $\rightarrow$ (DET) (ADJ) N (PP) (S') (DET)
3) INFL $\rightarrow$ [±TNS]
4) [+TNS] $\rightarrow$ (TNS) (MOD) (ASP)
5) VP $\rightarrow$ V (NP) (NP) (PP) (S')
6) PP $\rightarrow$ P NP
7) $S'$ $\rightarrow$ COMP S

(1) is the standard account of a S in the GB model. We have adequately justified its validity throughout the work, but some changes will nevertheless be made in the following section. (2) is a result of the general description of NPs, primarily in Chapters II and III. That there is a determiner possible initially should be evident from the ample examples of the di-N 'the-N' and wan-N 'a-N' type. The prenominal adjective position is a bit more problematic based on the limited data available. This consists of a few examples of what appear to be compound constructions where an adjective precedes a noun as in (8a,b,c).

8a) di sikima

the sick-man

'the sick man'
b) di hogima
   the evil-man
   'the bad guy'

c) di gandji fisí
   the mean fish
   'the piranha'

In postposition, we saw in section 4.2.3 that a fu NP 'for NP' possessive string can follow a noun. We concluded in that chapter that this string is unambiguously a PP within a NP. Next, a S' is necessary to include instances of relative clauses (see section 4.1.2). Finally, we have a phrase-final determiner node which is, again, a bit problematic. As we saw particularly in Chapter II, such a constituent which takes the form of hen 'HE, SHE, IT' or de 'THEY' may appear upon dislocation of a NP. These NP-final deictics are then products of the transformational component of the grammar and do not appear at D-structure. Additional evidence of this node is aki 'here' (see Footnote (8) of Chapter VI) which also functions as a phrase-final deictic as in (9).

9) di kaapusa aki bi- de u mi
   the hat here TNS-be for me
   'The hat here was mine.'

Now it is entirely possible that aki 'here' is perhaps a stylistic variant of the focus markers hen 'HE, etc.' and de 'THEY' and is likewise a product of Move Alpha. If this is
correct, it would have a S-structure and gloss as in (10).

10) di kaapusa aki [ t bi- de u mi ]

the hat here...

'It is the hat here that was mine.'

In any event and independent of the final determination of the status of aki 'here', the fact that aki and also hen HE, etc.' and de 'THEY' do appear motivates a phrase-final determiner node at D-structure for the possible placement of these items at S-structure. Because of this, we presume the rule in (2). ¹

Moving to rule (3), this is a variant of the Chomsky (1981, 1982) rendition of INFL. The difference is that AGR is coincidental with TNS in SA (see Chapter II) and so does not need to be explicitly stated in the rule. Besides this, we have the possibility of a plus (+) or minus (-) value for TNS. This should be a fairly recent innovation since from the analyses we have seen, there is every indication to believe that no infinitives were present in prior forms of SA. ²

Rule (4) rewrites [+TNS] in rule (3). This must include TNS, ASP and possibly MOD. These are realized in

¹ Also see the appropriate arguments in Chapters II and IV.

² Refer to the sections on taa 'say, that' in Chapter IV, Dative dá 'give' in Chapter V and moon 'more' in Chapter VI.
synchronic SA by bi, which is inherently [+TNS], ta or nan—which can indicate present time (see section 2.2 of Chapter II), and by o 'will' and perhaps sa 'may, can, etc.' for some if modals are found to contain a [+TNS] feature. These elements also appear as they do in the rule since all three or any combination must maintain a strict TMA order (see Chapters II and IV). Finally, the parentheses indicate that a clause may be finite without any overt TMA marking (again see section 2.2).

The verb phrase must include the constituents seen in rule (5). That is, there must be double NPs since in some Dative environments (see (77) in Chapter V), the dá Dative marker is omitted, leaving a "bare" NP as in (11).

11) a sei di womi di wagi
   he sell the man the car
   'He sold the man the car.'

Also included in rule (5) is a PP node since such phrases, although not highly productive, are nevertheless subcategorized for by some verbs in synchronic SA.

12a) a go a di wenke
    he go to the store
    'He went to the store.'

b) a koti di fisi ku di faka
    he cut the fish with the knife
    'He cut the fish with the knife.'
Finally, there must be a S' node within a VP in order for sentential subordination to take place. We have adequately discussed such subordination in the preceding chapters and nothing more need be said here to justify the inclusion of the constituent.

Rules (6) and (7) also need little comment other than to mention that there is some question whether subordinating conjunctions in SA are prepositions or, simply, subordinating conjunctions base-generated in COMP. We saw in section 4.1.3 that Emonds (1976) and Baltin (1978) propose that they are prepositions in English. However, from the findings of the Creole Syntax Project at the University of Hawaii, there is some reason to think that a prepositional analysis is not applicable to SA. We'll continue with this discussion in the section on creolization.

7.1.2 Reconstructed SA

The main concern and discussion in this work relating to reconstructed SA have been with the constituents within VPs. While NPs and their elements are certainly important, other than relative clauses, sentential complementation in SA is preponderantly within the realm of the VP. Moreover, verb serialization also takes place within this domain, thus exhausting our analytic objectives here. If the reader wishes more information on NPs and/or
cross-categorial generalizations, he may refer to Bickerton (1984), Bickerton and Byrne (forthcoming), or Muhlhausler (1976, 1980).

The primary change that has affected the VP in SA is the introduction of the double NP sequence. As we saw in Chapter V and as touched upon in the previous section of this chapter, there is good reason to believe that all Datives at one time were introduced by the dá Dative marker. Because dá also has a Benefactive reading and would be ambiguous with a Dative interpretation with the verbs dá 'give', paka 'pay', hakisi 'ask' and sei 'sell' (see (77) of Chapter V), the Saramaka have omitted dá Dative in just those environments. However, where dá Dative is not ambiguous and, indeed, can only have that one reading as with taki 'say' and konda 'tell' (again see (77) of Chapter V), the overt dá Dative marker has remained. Moreover, alongside (11), repeated here as (13a), we also have the ambiguous (13b) with dá.

13a) a sei di womi di wagi
    he sell the man the car
    'He sold the man the car.'

13b) a sei di wagi dá di womi
    he sell the car give the man
    'He sold the car to the man.'
    'He sold the car for the man.'
If the dá Dative marker once existed categorically in SA, then by the principles and conclusions of variation theory (see Footnote (12) and the related discussion in section 2.3.2.2), the variation in its appearance points toward change in progress. The Saramaka have omitted dá Dative from all ambiguous contexts with the exception of sei 'sell' where dá appears variably as in (13a,b). From these observations, we conclude that SA once had a VP rule like (14).

14) \[ VP \rightarrow V (NP) (PP) (S') \]

Other conclusions about prior states of SA principally concern rules (3), (4) and (7). Let's begin with rule (3) which deals with INFL. As noted in the previous section, there is good reason to believe that the appearance of infinitives is of relatively recent origin. In fact, the development of infinitives is for the most part, best looked at as part and parcel of the reanalysis of verbs to other categories. Thus, as perhaps a first step towards this eventual goal, the Saramaka omit ASP (with a present reading) and TNS markers from certain verbal environments. We thereby see that formatives such as dá Dative, moon 'more' and taa 'say, that' (for some) cannot co-occur with the TNS and ASP markers bi and ra. We have

3. See Footnote (13) of Chapter II and the appropriate discussions in Chapters II, IV and V.
concluded that these items in most cases are infinitives (that is, for those speakers who have not already reanalyzed them to other categories). The implication of these analyses is that in some prior state of SA the Saramaka had rule (15) below rather than rule (3).

15) INFL $\rightarrow$ [+TNS]

However, rule (15) states that INFL is equivalent to [+TNS] and nothing more. For all intents and purposes, then, rule (15) is unnecessary and best incorporated into rule (1) as in (16) below.

16) $S \rightarrow$ NP [+TNS] VP

Concerning rule (4), as we saw in Chapter IV, there is evidence to indicate that at one time, all modals were main verbs. That is, in synchronic SA, a 'will' (from go 'go') and perhaps sa 'can, may, would, etc.' for some are modals within INFL. However, the remaining modality markers in synchronic SA offer greater or lesser main verbal features. Some speakers may tense and copy sa 'can, etc.', musu 'must' and fu 'should', while others allow one or the other. Based on the principles of variation theory and Lightfoot's Transparency Principle, such variation again points toward gradual change in progress. In this case, it

4. See Footnote (3) above.

5. Refer to the appropriate discussion in Chapter IV and also Footnote (11) in that chapter.
involves a change of main verbs with a modality sense to actual modals within INFL. If this is correct, then earlier forms of SA had the phrase structure rule in (17) below rather than the more complex synchronic rule in (4).

16) \([+\text{TNS}] \rightarrow (\text{TNS}) (\text{ASP})\)

We interpret (17) as stating that a \([+\text{TNS}]\) feature may involve the overt appearance of the TNS marker \(\text{bi}\), the ASP marker \(\text{ta}\) or \(\text{nan-}\) with a present reading, or both.

A final concern in this section deals with rule (7). In that rule, \(S'\) is rewritten as \(\text{COMP-S}\). Now a COMP node, besides being a possible landing site for dislocated constituents, also may receive base-generated constituents usually known as complementizers. In addition, we propose that it may receive what have been called 'subordinating conjunctions' (although this has not been determined). From the analysis in section 4.3, we concluded that \(\text{taa}\) 'say, that' alone can uniquely be classified as a complementizer, but for one speaker only - the least conservative of the four principal consultants. \(\text{fu}\) 'for', for its part, is unambiguously main-verbal for all. What this portends is that in earlier states of SA, there was no category 'complementizer'. The categorial repertoire of these Saramaka (taken as a whole) was then less than it is for the present generations (again taken as a whole). We can also conclude from these analyses that COMP nodes were present to facilitate COMP-to-COMP cyclic movement and may have
received only subordinating conjunctions at D-structure
(subject of course to a final determination of the status of
these elements).

From this discussion, reconstructed SA most likely
had the following phrase structure rules (omitting the
rewrite of a NP as peripheral to our concerns in this work).

18) \( S \rightarrow NP \ [+TNS] \ VP \)
19) \([+TNS] \rightarrow (TNS) \ (ASP)\)
20) \( VP \rightarrow V \ (NP) \ (PP) \ (S')\)
21) \( PP \rightarrow P \ NP \)
22) \( S' \rightarrow \text{COMP} \ S \)

Still to be evaluated is rule (21) above and the status of
the PP constituent within a VP. This we will do in the next
section on creolization.

7.1.3 Creolization

Bickerton (1981, 1984) suggests that in the most
extreme possible form of creolization, there are no
prepositions. However, due to superstrate influence\(^6\)
during these languages' formative stage, even radical
creoles such as SA incorporate a limited number of
prepositions. As we observed in Chapters II, III and IV,
the prepositions in SA which take NP complements are the
general locative a 'in, on, at, to, etc.' , Instrumental and

\^[6. See Footnotes (8) and (12) of Chapter I.]
Comitative *ku* 'with' and locative, possessive and Secondary Theme *fu* 'for'. However, of the three forms, only *a* 'in, on, etc.' and *fu* 'for' may have originally been a part of a verb's argument structure. In other words, only these two prepositions may have been found within VPs in earlier forms of SA. *ku* 'with', for its part, could have originally existed only as a Comitative marker within NPs (see Chapters II and V) as Bickerton (p.c.) suggests and not as a post-verbal Instrumental marker. Remember that the *tei* 'take' serial has exactly the same function and would render redundant the presence of *ku* with an Instrumental reading. Whatever the nature of the original *ku* 'with', with only two and at most three prepositions introducing GF-Øs within VPs, the category was and is a marginal and unproductive lexical class and is best looked at as within the marked periphery of SA core grammar.

The fact that SA incorporated a paucity of prepositions within the VP from the large number of possible prepositional candidates in English and Portuguese (which were the superstrate languages for SA - see Goodman (1982)) certainly suggests that such prepositions were not a part of the language-building strategy of the earliest native-born Saramaka in the same way that that complementizers were not

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7. The appropriate discussion and analysis is in Chapter V.
(see Chapter IV). And if this is the case in SA, the purported most radical creole that we know of according to Alleyne (1979: 91) and Bickerton (1984: 177), then the category 'preposition' (and 'complementizer') should not be a formal lexico-syntactic property of the creolization process itself. It seems likely, therefore, that other than natural change such as has occurred with moon 'more' with at least one Saramaka (see Chapter VI), only through a given creole's level of contact with a superstrate language (and perhaps the substrate as well) during its formative period and later do creoles incorporate prepositions. Thus in SA which had little superstrate or outside contact in its entire history, it still has but a handful of prepositions. On the other hand, other creoles such as Hawaiian Creole English and Palenquero with greater initial and/or later superstrate and outside contact, many more prepositions are in evidence as we expect.

Based on the above observations, we propose that the VP phrase structure rule of the most radical possible form

8. See Footnote (12) of Chapter I. Also pertinent to this observation are Bickerton (1981, 1984), Bickerton and Byrne (forthcoming), Byrne (1984a, d; forthcoming) and Goodman (1982).

9. See Footnote (8) above.

10. For Hawaiian Creole English, refer to Bickerton (1977a) and Bickerton and Odo (1976). For Palenquero, see Byrne (1984a) and Friedmann and Patiño (1983).
of creolization (which SA best exemplifies) contains no prepositions. This rule and the others, which should partially define SA core grammar (but excluding a rewrite rule for the NP as we did in (18) through (22)), are herefore as in (23) through (26) below.

23) $S \rightarrow NP \ [+TNS] \ VP$

24) $[+TNS] \rightarrow (TNS) \ (ASP)$

25) $VP \rightarrow V \ (NP) \ (S')$

26) $S' \rightarrow \text{COMP} \ S$

A still unresolved problem is the status of subordinating conjunctions in SA and other creoles. If these items are prepositions as Emonds (1976) and Baltin (1978) propose for English, then the formative stage of these languages would necessarily include the category 'preposition'. With the category thereby available as a productive class, we can see no reason why there would be any inhibition in incorporating a variety of prepositions, albeit with NP rather than sentential complements. Since there are significantly few prepositions with NP complements at least in SA$^{11}$ and if there is a cross-categorial

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generalization with relativizers, which the members of the Creole Syntax Project at the University of Hawaii have found are invariable in form and not pronouns in a very large proportion of creoles from around the world, then we think that this is sufficient justification for concluding that subordinating conjunctions are just that, invariable forms presumably in COMP position, and not prepositions. If this is correct, then we have additional justification for omitting prepositions from the canonical syntax of the creolization process itself.

7.2 Serialization

A further quite important conclusion that can be reached from the nature and rules of synchronic and reconstructed SA and the base component of its core grammar as formulated here is that serial verb structures are a necessary, and indeed, an inescapable by-product of these languages' formation. First, if there was a strict adjacency requirement to Case assignment in SA (which seems likely based on the data and analyses in this work), then at the most, a verb could Case-mark one NP. Datives and Benefactives such as in (13b) would then necessarily require a separate and contiguous Case-marker so as to not run afoul for Haitian Creole, and Hancock (1985) for a wide cross-section of Atlantic creoles.
of the Case Filter; a viable and necessary solution would be to develop a serial strategy such as there is in SA.

Second, since prepositions are an unproductive and marginal category in synchronic and reconstructed SA, and with complementizers non-existent, necessity dictated that the Saramaka adopt a subordinate S strategy to express the GF-Øs of a verb. It had to be sentential since the only available node in their VP phrase structure rule, other than a "bare" NP, was S'. Thus, the pseudo-complementizers fu 'for' and taa 'say, that', the enefactive and Dative marker dá 'give', and the Instrumental role with tei 'take' were necessarily expressed serially, indeed sententially since this was the only alternative; there was no other available syntactic means to elaborate the grammatical relations necessary for the status of a natural language. And these S units were finite since, again, there was no option; INFL until probably very recently (due to internal change) was only rewritten as [+TNS].

Concerning verb-modifying serials, again in many cases there was no other alternative but to generate them as finite sentential units. For example, based on the the productive rules of SA and its lexical repertoire, to express directionality with motion verbs, a logical and inescapable strategy was and is to do so serially with ko 'come' and go 'go'. For this reason, these items head VPs within finite clauses (a conclusion which synchronic SA
substantiates). In regard to longtu 'around, circle' and the comparatives moon 'more' and pasa 'pass', due once more to the paucity and marginal status of prepositions and the non-existence of complementizers, these formatives had to be incorporated as verbs within finite clauses. Only perhaps kaba 'finish' had the option of being classified as something other than a verb. There are numerous adverbs in synchronic SA (see Appendix A) and conceivably kaba could have entered SA as a member of that category. That it did not attests to the productive nature of serialization with the configuration and features discussed here.

From the analyses in the preceding chapters and the nature of the base component in SA, it should be evident that verb serialization was and is the only possible means of expressing the intrinsic grammatical relationships found in language. That is, serial verb structures were and are necessary because the early Saramaka were forced to generate maximum possible syntactic output from minimal syntactic input. Thus it would appear that serialization is a spontaneous outgrowth of radical creolization rather than due to any West African influence. We'll continue to explore this last point in the next section.

7.3 Substrate-Universal Question

In Chapter I, we mentioned that if serialization in SA is found to contain features significantly different from
West African languages, particularly the Kwa group of the Niger-Congo family, then this would jeopardize Alleyne's (1971a,b; 1979; 1980a,b) contention that serialization in at least the Atlantic creoles is a direct transference from these African languages. Significant differences in SA would damage Alleyne's claims because he also contends (1979: 91) that SA "may represent the oldest layer of creole known to us." This would be true because if such structures are different in the most creole form of language that we know of, then there is no reason to believe, based on the present form of Alleyne's theory, that serialization in at least the more radical form of creolization is in any relevant way dependent on a particular subset of West African languages.

To analyze this quite important issue, we will once more repeat the generalizations on West African and creole languages that first appeared in Chapter I (but with feature (iii) omitted as peripheral). These are:

i) TMA and negation are marked only once, usually in the initial clause, but are interpreted as the same throughout.

ii) The subjects of serial verbs are phonologically-realized only in the initial clause.

As we saw throughout the body of the study, SA departs totally from characteristic (i). In all non-serial and serial structures under review, with moon 'more' in
Chapter VI the only exception based on the available data, TMA markers appeared in all clauses, matrix and subordinate, for at least some Saramaka. In regard to negation, while its appearance has become restricted in some serial contexts, still there are enough instances of its appearance to conclude that (i) is likewise not applicable for this feature.

Concerning (ii), we again found significant deviations, especially in the case of Instrumental serial structures. Here we encountered speakers who may overtly articulate the subject of this serial. Moreover, in other serials which allow negative marking (e.g. dá Benefactive, longtu 'around, circle' and kaba 'finish' in Chapters V and VI), the derived negative marker an may appear; its presence indicates a preceding subject. These features taken together, then, significantly deviate from characteristic (ii) and thereby from other serializing languages.

Now SA is the only serializing language as far as is known which contains the features just discussed; others adhere to characteristics (i) and (ii). If we thus exclude SA from consideration, then Alleyne's contention that serial verbs in the Atlantic creoles originated from West African languages is credible. However, since we now know that SA is the exception, to exclude it would be scientifically suspect. Allowing SA then leads us to wonder how these particular features appeared. If they were a result of West
African languages, then the substrate advocates are necessarily forced to provide evidence that TMA, negation and subjects were overtly present in the serial structures of the West African languages that the original slaves spoke. Otherwise, they are at a loss in explaining how overt subjects, TMA and negation appear in the serial structures of SA. By virtue of elimination, therefore, we have to conclude that Bickerton's Universal's Theory is better suited to explain the facts of SA.12

From another perspective, Richard Oehrle (p.c.) observes that Alleyne's "conclusion that serialization is inherited from Africa is dependent on the assumption that serialization can only be inherited and cannot arise spontaneously." Based on the apparently unique nature of serialization in SA as compared to all other serial languages studied, but still contingent on evidence from the

12. The Ratiomorpher Apparat 'apparatus of the ratiomorph' of the relatively new field of cognitive biology as discussed by Riedl and von Robert Kaspar (1981) independently reinforces Bickerton's views on creolization. As explained by Tom Markey (p.c.) and originally seen in Footnote (7) of Chapter I, they claim that when a number of languages are in contact, a new and different language will result. Thus, the overt TMA markers and subjects with serials are explained from both Bickerton's and the Ratiomorpher Apparat approach; creolization and thereby creoles involve the creation of a new language due to the combination of a specific set of extralinguistic factors.

Having said all this, in the creation of a new language we cannot and should not discount substrate and superstrate influence. Because of contact, there is obviously some level of influence; the degree and which elements are affected are still open to question.
Kwa group of West African languages that TMA, negation and overt subjects existed in serial structures in the Seventeenth Century, we have to conclude, following Oehrle, that serial structures in SA spontaneously emerged during the creolization process. And as is consistent with such a conclusion, the presence of the slaves' West African languages with similar structures but supposedly different features were simply accidental and had no bearing on the emergence of serial verbs in SA. Indeed, from the nature of the synchronic and reconstructed base rules of SA, the early Saramaka, as previously noted, had no option but to incorporate serial structures in order to express the grammatical relations mandatory for sentential well-formedness. In fact, from the perspective of the necessity of serial verbs in SA, we concluded in various parts of the text that there is absolutely no difference between serials and sentential complements. Given this, the term 'serial verb' as applied to SA is meaningless and is actually a misnomer. A more accurate title for this work might then simply be Predicate Complementation in Saramaccan.

7.4 Markedness

On various occasions in the body of the text, we noted that certain structures in SA are considered to be unmarked (in the sense of the linguists making the observations). Specifically, in Chapter II, Chomsky (1981)
and Van Riemsdijk (1978) respectively consider Exceptional Case Marking and preposition stranding to be marked processes. SA, which does not exhibit these processes, thereby produce the unmarked options in each case.

We also concluded, based on the comments of Chomsky (1981) concerning adjacency in Case marking, that the double-NP construction discussed in Chapter V is marked. In this instance, SA variably exhibits the pattern, but there is good reason to believe from the principles of variation theory that SA did not originally contain the structure. Thus, again, SA began with the unmarked alternative.

Finally, in Chapter I we mentioned that Jansen et al. (1978) consider serial structures in Sranan to be rather marked. However, as additionally noted in Chapter I, Jansen et al. analyze these structures as VPs and not sentential units. Based on this approach, they would indeed be marked when compared to sentential complements as normally construed in the literature. But as we also discovered in this work, serials are not VPs but are sentential (at least from the standpoint of GB theory). Thus the

13. To be fair to Jansen et al. (1978) and others (see Footnotes (23) and (24) of Chapter I), they did not have GB theory when they analyzed Sranan and thus could not necessarily be expected to conclude that serials are sentential in nature.

14. However, from the evidence found in SA concerning TMA marking and subjects in subordinate clauses, we
conclusions of Jansen et al. are not correct concerning markedness; serials are no different from sentential complements, whether finite or infinitives. Markedness should thereby be considered in terms of this viewpoint rather than from a VP orientation.

From the standpoint of the base rules and categories of at least SA core grammar, these too point toward a less marked alternative. First of all, with prepositions apparently in the marked periphery, from a quantitative view the number of necessary base rules is less than there would be with the category. Similarly, with only a [+TNS] value for INFL and only TNS and ASP, and not MOD, necessary for the rewrite of [+TNS], these rules should be less marked than those with a [±TNS] value and modals included.

While the number of structures and/or features commented upon by other linguists are few in number, still I think it is significant that without exception they are all independently viewed as unmarked. The base rules of SA core grammar are likewise simpler and thereby probably represent the unmarked parameter, in some sense of the term, than more complex forms of the same base rules. From this, then, we can tentatively conclude that the pattern, such as it is, points toward SA as having developed its core grammar from

have to conclude that GB theory is the most accurate and thereby superior to the competing contemporary models.
unmarked options. Unfortunately this work is not designed to pursue the topic further, but the reader may refer to Bickerton and Byrne (forthcoming) for a more in-depth account.

7.5 Envoi

In the pursuit of knowledge, we are often encumbered by incorrect facts. This often leads to erronious conclusions which, for their part, perpetuate a distorted view of reality. Along these lines, there is a quotation which I heard quite some time ago which excellently captures the problem of the observation of phenomena and the development of theories. It goes as follows: "50% of what we think is true is incorrect; the problem is that we don't know which 50%." It is my hope that this presentation has decreased somewhat the percentage of our incorrect beliefs concerning SA, creolization, some concerns of syntax, serialization, language change and the impact of the West African languages on the Atlantic creoles.
Glossary of Pertinent Saramaccan Formatives

1. **a**
   1.) Nominative personal pronoun. 'he, she, it'.
   2.) Possessive pronoun. 'his, her, its'.
   3.) General locative preposition. 'in, on, at, to, from, inside, outside, on top of, etc.'.

2. **aki**
   Adverb. 'here'.

3. **a(l)a**
   Adverb. 'there'.

4. **amankan**
   Adverb. 'tomorrow'.

5. **ambe**
   Interrogative pronoun. 'who'.

6. **an**
   Derived negative marker from **na** 'negative'.

7. **andi**
   Interrogative pronoun. 'what'.

8. **andimbe**
   Interrogative pronoun. 'why'.

9. **awaa**
   Adverb. 'now'.

10. **bi**
    Tense marker.

11. **biga**
    Subordinating conjunction. 'because'.

12. **da**
    Conjunctive. 'then'.

13. **dá**
    1.) Verb, Dative or Benefactive marker. 'give'.
    2.) Equative copula. 'be'.

14. **de**
    1.) Personal pronoun. 'they, them'.
    2.) Focus marker. 'THEY'.
    3.) Possessive pronoun. 'their'.
    4.) Non-equative copula. 'be'.

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dee 1.) Plural definite article. 'the'. 2.) Plural relative pronoun.
di 1.) Singular definite article. 'the'. 2.) Demonstrative pronoun. 'this'. 3.) Temporal pronominal. 'when'. 4.) Singular relative pronoun. 5.) Subordinating conjunction. 'since, because'.
en Objective personal pronoun. 'him' her' it'.
fu (also pronounced as /u/) 1.) Locative, possessive, Secondary Theme preposition. 'for, of'. 2.) Obligation modality marker. 'should, have to'. 3.) Pseudo-complementizer. 'for'.
go Verb. 'go'.
hen 1.) Focus marker. 'HE, SHE, IT'. 2.) Conjunctive. 'and'.
hesi-hesi Adverb. 'rapidly'.
i 1.) Personal pronoun. 'you (singular)'. 2.) Singular possessive pronoun. 'your'.
jeside Adverb. 'yesterday'.
ju 1.) Emphatic personal pronoun. 'YOU (singular)'. 2.) Emphatic possessive pronoun (singular). 'YOUR'.
ka Locative pronominal. 'where, in that place'.
kaa Adverb. 'already'.
kaba Verb. 'finish'.
ko Verb. 'come'.
ku 1.) Instrumental preposition. 'with'. 2.) Comitative preposition. 'with'.
longtu Verb. 'around, circle'.

ma 1.) Conjunction. 'but'. 2.) Contraction: mi 'I' + an 'negative'.

mi Personal pronoun. 'I, me'.

moon Verb, preposition. 'more'.

musu Obligation modality marker. 'must'.

na Negative marker.

naandi (a + andi) Preposition with interrogative pronoun. 'at, on, to, in, etc. what'.

naase (a + unse) Preposition with interrogative pronoun. 'at, from, to, etc. where'.

nan- Aspect marker with go 'go'.

naunten Interrogative pronoun. 'when'.

nomo Adverb. 'always'.

o Future, irrealis modal. 'will'.

pasa Verb. 'pass, more than'.

seei 1.) Noun. 'self'. 2.) Anaphor preceded by pronominal such as en seei 'him, her, it self'.

sa Modality marker. 'can, may, would, etc.'.

ta Aspect marker.

taa Verb, complementizer. 'say, that'.

taki Verb. 'say'.

te 'until'.

tei Verb. 'take'.

u 1.) Personal pronoun. 'we, us'. 2.) Possessive pronoun. 'our'. 3.) The reduced form of fu (see that entry).
un   Interrogative pronoun. 'when, which'.
unfa  Interrogative pronoun. 'how'.
unse  Interrogative pronoun. 'where'.
un(u) 1.) Personal pronoun. 'you (plural)'.  2.) Possessive pronoun. 'your'.
wans  Indefinite article. 'a, an'.
wanslo Quantifier. 'some'.

wanlo  Quantifier. 'some'.

APPENDIX B

PERSONAL DATA ON PRINCIPLE SARAMAKA CONSULTANTS

While in Suriname, I interviewed a total of seventeen Saramaka. However, as I mention in Chapter I, only four consultants accounted for approximately 95% of the data collected over three years. The remaining Saramaka were interviewed primarily during the first orientation trip to Suriname in 1981; their contribution was consequently marginal from both a quantitative and qualitative standpoint. They thereby played no relevant role in the analyses in this work. For these reasons, only the personal data of the four main Saramaka are pertinent and are included here. The order of presentation below of each Saramaka reflects his linguistic conservativeness (as defined in Footnote (5) of Chapter V), with the first informant presented being more conservative and the remaining being progressively less so. Note Table (1) on the following page.
<table>
<thead>
<tr>
<th>First Initial</th>
<th>Age</th>
<th>Sex</th>
<th>Education</th>
<th>Languages Spoken</th>
<th>Village</th>
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<td>1) A.</td>
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<td>M</td>
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<td>SA</td>
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<td>SA</td>
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<td>F</td>
<td>illiterate</td>
<td>SA</td>
<td>Asidon- hopo</td>
</tr>
<tr>
<td>4) S.</td>
<td>20</td>
<td>M</td>
<td>high school</td>
<td>SA, Sranan,</td>
<td>Asidon- hopo</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Matawai, Djuka,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>English, Dutch,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>some Spanish</td>
<td></td>
</tr>
</tbody>
</table>

Table (1): Pertinent Data on Main Saramaka Informants.
APPENDIX C

ABBREVIATIONS

A argument
A' non-argument position
ADJ adjective
AGR agreement
arb arbitrary
ASP aspect
C century, consonant
COMP complementizer node
CV... consonant-vowel ... (refers to syllable structure)
D-structure deep structure
EC empty category
ECP Empty Category Principle
EPP Extended Projection Principle
GB Government and Binding Theory
GF grammatical function
INFL inflectional node (or AUX)
LF Logical Form
MDP Minimal Distance Principle
MOD modal
N noun
NE new English

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neg negation or negative marker
NIC Nominative Island Condition
NP noun phrase
OE old English
P preposition
p.c. personal communication
PF Phonological Form
pro 'small pro'
PRO 'big PRO'
prox proximate
R-expression referential expression
S sentence
S' S prime or S-bar
S'' S double-bar or TOP node
SIL Summer Institute of Linguistics
SOV Subject Object Verb
S-structure surface structure
SVO Subject Verb Object
t trace
TMA Tense-Modal-Aspect
TNS tense
TOP topicalizer node or S double bar
UG universal grammar
V verb
V' a non-verbal node (one which does not receive base-generated verbal elements)
VP verb phrase.
wh interrogative form
APPENDIX D

SARAMACCAN ORTHOGRAPHY

The SA orthography used in this work is a variant of the system developed in Voorhoeve (1959, 1961) and the Summer Institute of Linguistics in Paramaribo, Suriname, particularly Rountree (1972a) and Rountree and Glock (1982). In the list below, the orthographic symbol appears to the left, with its phonemic value and SA examples to the right.

Consonants

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Value</th>
<th>Example 1</th>
<th>Example 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>/p/</td>
<td>pau 'stick', pampia 'paper'</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>/b/</td>
<td>bi 'TNS marker', libi 'live'</td>
<td></td>
</tr>
<tr>
<td>t</td>
<td>/t/</td>
<td>ta 'ASP marker', foto 'Paramaribo'</td>
<td></td>
</tr>
<tr>
<td>d</td>
<td>/d/</td>
<td>dagu 'dog', sodati 'soldier'</td>
<td></td>
</tr>
<tr>
<td>k</td>
<td>/k/</td>
<td>ke 'want', faka 'knife'</td>
<td></td>
</tr>
<tr>
<td>g</td>
<td>/g/</td>
<td>gbamba 'meat', kooga 'fall'</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>/m/</td>
<td>mombi 'to insult', mutsama 'rainbow'</td>
<td></td>
</tr>
<tr>
<td>n</td>
<td>/n/</td>
<td>nen 'name', manda 'send'</td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>/f/</td>
<td>fou 'bird', tafa 'table'</td>
<td></td>
</tr>
<tr>
<td>v</td>
<td>/v/</td>
<td>ventu 'wind', vunvun 'hummingbird'</td>
<td></td>
</tr>
<tr>
<td>s</td>
<td>/s/</td>
<td>sikisi 'six', wisi 'black magic'</td>
<td></td>
</tr>
<tr>
<td>z</td>
<td>/z/</td>
<td>zonu 'sin', zengeni 'to swing'</td>
<td></td>
</tr>
<tr>
<td>ts</td>
<td>/ts/</td>
<td>tsa 'carry', matsau 'ax'</td>
<td></td>
</tr>
</tbody>
</table>
There are two levels of tone in SA—high and low. Tone in this work was marked in one instance only—dá 'give, be'—with ' representing high tone. For more information on tone in SA, the reader can refer to Rountree (1972b) and Voorhoeve (1961).

We occasionally represent pause in selected examples in the body of the text with the symbol /.

Finally, although vowel lengthening is a productive process in SA, we did not represent it suprasegmentally. Rather, we represent vowel length through repetitions of a particular vocalic symbol. Thus, be 'red' has a normal
vowel length, bee 'stomach' has a longer pronunciation and beee 'bread' contains the longest possible articulatory length in the language.
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