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SUBSTRATE INFLUENCE IN THE FORMATION OF THE SURINAMESE PLANTATION CREOLE: A CONSIDERATION OF SOCIOHISTORICAL DATA AND LINGUISTIC DATA FROM NDYUKA AND GBE

DISSERTATION

Presented in Partial Fulfillment of the Requirement for the Degree Doctor of Philosophy

in the Graduate School of The Ohio State University

By

Bettina M. Migge, M.A.

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The Ohio State University

1998

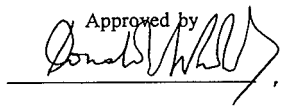
Dissertation Committee:

Professor Donald C. Winford, Adviser

Professor Brian D. Joseph

Professor Terence M. Odlin

Approved by



Adviser

Department of Linguistics

ABSTRACT

In the literature on creole languages two main positions have emerged on the origin of creole grammar: First, creole grammar is derived from the human blue-print for language. Second, creole grammar is primarily modeled on the grammar of the first languages of its creators. Despite continued discussions about the origin of creole grammar, little substantial evidence has, however, been brought forward in support of either position.

The aim of this thesis is to contribute to the discussion about the origin of creole grammar by exploring the role of the African substrate in the formation of one particular creole, the Surinamese Plantation Creole (SPC). Specifically, this study addresses three issues related to this question: (i) the nature of the substrate input, (ii) the degree of its involvement, and (iii) the mechanisms that gave rise to it. Following the methodology for proving contact-induced language change proposed by Thomason and Kaufman (1988) and Thomason (1993), this study determines the role of the substrate in the formation of the SPC on the basis of a sociohistorical analysis of the contact setting in which the SPC arose and on the basis of a detailed comparison of two subsystems of grammar, serial verb constructions and copular and ascriptive constructions, in the modern descendants of the SPC and its putative substrate.

The sociohistorical analysis and the linguistic analysis both strongly suggest that the Gbe group of languages was the primary substrate language and the primary linguistic input to the formation of the SPC. The primary mechanisms involved in the formation of the SPC were retention of abstract syntactic patterns from the first language(s) of the creators of the SPC and borrowing of mainly lexical items from the second language and pidgin varieties of English which served as secondary linguistic inputs to the formation of the SPC. The study also suggests that other mechanisms such as reduction, regularization, and extension which are commonly found to operate in all contact settings also played a role in the formation of the SPC.

Dedicated to

my parents

Gertrud und Günter Migge

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VITA

April 18, 1967 ..... Born — Hamburg, Germany

1991 - present ..... Graduate Teaching and Research Associate, The Ohio State University

1993 ..... M. A. Linguistics, The Ohio State University

PUBLICATIONS

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FIELDS OF STUDY

Major Field: Linguistics

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LIST OF SYMBOLS AND ABBREVIATIONS

[ ]: optional

__: gap, some item has been moved from this site

*: unacceptable

$_i$: subscript letters mean that the items which have the same letter attached to them have the same real world referent

A: Aja (Gbe)

COMPL: completive aspect marker

COP: copula

CP: clause final particle

DET: determiner

DM: discourse marker

EMPH: emphatic marker

EXL: exclamation

FOC: identificational focus marker

FUT: future marker

HAB: habitual marker

HES: hesitation

IDEO: ideophone

IMP: imperfective aspect marker

LOC: locative marker

LOCP: locative phrase

M: Maxi (Gbe)

MOD: mood marker

ND: Ndyuka

NEG: negation

NP: noun phrase

NP_1: the subject of V_1 and the SVC

NP_2: the object of V_1

NP_3: the object of V_2

OBL: obligation mood marker

OK: Okanisi or Aukan variety of Ndyuka

PART: particle

PAST: past marker

PM: Paamaka or Paramaccan variety of Ndyuka

POT: potential mood marker

POSTP: postpositional phrase

pl: plural

PRE: presentational focus marker

QP: question particle

REL: relative marker

sg: singular

SI: serial item

SPC: Surinamese Plantation Creole

SVC: serial verb construction

TMA: tense, mood, and aspect

V_1: the first verb in a SVC

V_2: the second verb in a SVC

VP: verb phrase

VP_1: the first verb phrase in a SVC

VP_2: the second verb phrase in a SVC

W: Waci (Gbe)

X: Xwela (Gbe)

CHAPTER 1

INTRODUCTION

1. 1. Introduction to the subject matter

"Substratum influence constitutes one of the important ways in which facts from another language may affect or effect change" [in a language] (Alleyne, 1986, p. 302). Claims of substratum influence as the cause of the presence of certain features in varieties spoken by African-American peoples and in other languages have, however, often been dismissed on the basis of three reasons: First, "the existence of these same forms of allegedly African antecedence in areas of the world where there have never been any Africans." (Alleyne, 1980, 139-140). Second, the main interest in language change had been for a long time to account for it "in terms of rationalist theories which do not seek support from factors outside of language" (Alleyne, 1986, p. 301), most importantly the make-up of the social setting in which the change arose. Third, the largely

unprincipled way in which African linguistic features have been randomly invoked without proposing principles to account for their selection (Mufwene, 1990).

The aim of the present study is to evaluate the role and nature of substrate influence in the formation of the Surinamese Plantation Creole (SPC), a language that developed as the result of contact between speakers of different languages between roughly 1651-1720 on the plantations in Surinam, by applying the (principled) methodology for proving (contact-induced) language change or creation proposed by Thomason and Kaufman (1988) and Thomason (1993). This methodology relies on two types of data to account for the origin of (contact-induced) language change or creation: sociohistorical data on the nature of the contact setting, and detailed linguistic data on specific, in this case morphosyntactic, subsystems of grammar in the relevant languages involved in the contact setting and the resultant language.

1. 2. The theories of creole genesis and the role of substrate influence

Several broad positions have emerged in the literature with regard to explaining the formation of Afro-American language varieties in particular and the nature of creole genesis in general: the bioprogram or universalist hypothesis, the substrate hypothesis, the superstrate hypothesis, the 'diffusionist' hypothesis, and a 'dynamic'

approach.[1] They focus their attention primarily on two issues: What were the inputs to creole formation and what were the linguistic processes that led to creole formation. Supporters of the bioprogram or universalist hypothesis (Bickerton, 1981, 1984, 1989, 1994; Byrne, 1987; Veenstra, 1996) maintain that "universal processes of creolization have priority over (West African) continuities in the creolization process." (Veenstra, 1996, p. 176) since they argue that the process of creole formation or creolization, as they refer to it, involves first language acquisition by children who do not have access to an adequate variety of language. Given this premise, they argue first, that "the primacy of language change lies in first language acquisition rather than in second language acquisition ... [and] that changes in grammatical systems occur in the transmission of language between generations of speakers." (Veenstra, 1996, p. 176). Second, they assume that the creators of creoles are children who do not have access to viable varieties of language.[2] Such children have to rely on strategies from universal grammar for interpreting the deficient input they are exposed to since that input does not supply them with a rule

[1]The labels I used for designating the different theories are not necessarily used by the supporters that have become associated with them but have become widely known as such. The works cited in reference to the individual positions are generally not the only ones espousing these views. I selected them because they are most closely associated with the positions discussed.

[2]In the case of Caribbean creoles, the parents' (substrate) language was socially not viable since it could not be widely used in the multilingual setting. The European (superstrate) language could not function as a target of learning since access to it was very limited. Finally, the pidgin created by the parents did not represent a viable target of learning either since it is questionable whether such "rudimentary pidgins have a syntactic organization at all." (Veenstra, 1996, p. 181).

system. These universal strategies, putatively operative only in the initial stages of first language acquisition, involve the tendency to interpret strings of words in a maximally unmarked way in the absence of sufficient contradicting data and the tendency to eliminate structural complexity (Veenstra, 1996, p. 182). Universalists make only minimal allowance for substrate influence (see Veenstra, 1996, p. 154 on the serial verb *da* in Saramaccan) and are not explicit about the processes that give rise to it.

Supporters of the substrate hypothesis, on the other hand, maintain that creoles did not emerge as the result of first language acquisition by children. They argue that creoles were the result of contact-induced language change resulting from interactions between adults. Despite this general consensus, however, disagreement exists over the role of the substrate and the superstrate in creole formation and the actual processes involved in creole formation. Two main positions have emerged: First, Lefebvre and Lumsden (1989) and Lefebvre (1993) are associated with a strong language maintenance or retention position. They maintain that the slaves retained the structural system of their first language (substrate) and then relexified it with phonetic strings from the superstrate. According to them, the main processes involved in the formation of Haitian Creole "may ideally be defined as the result of the mapping of French phonetic strings onto West African [Fon] grammatical structures."(Lefebvre, 1993, p. 254). In order to account for the differences between Haitian Creole and its substrate, which are found on all levels of grammar, they argue that the process of relexification was accompanied by other processes such as convergence and reanalysis. The superstrate varieties in this process are

assumed to have been regional varieties of French which must have been quite similar to standard French since Haitian is being compared to standard French. Second, Boretzky (1983, 1993) and Thomason and Kaufman (1988) argue in favor of a language shift scenario in which the superstrate(s) were restructured under the influence of the substrate(s). They assume that the enslaved shifted to a rudimentary version of the language of their European superiors and then imported (mainly structural) features from their native languages into this variety to compensate for its deficient nature.

Advocates of the superstrate position (Chaudenson, 1979, 1989, 1992; Mufwene, 1991, 1993b) argue that the regional varieties spoken by the European population were the main building materials for both the grammatical system and the lexicon of modern creoles. They assume that the differences between creoles which 'derived' from the same European language, and between creoles and their European superstrate are the result of substrate influence (from the first languages of the slaves) and convergence between the substrate and the superstrate. According to Chaudenson (1989) creoles emerged in three stages: During the first stage, the so-called *société d'habitation*, the slaves had close contacts with the European population, the owners and the indentured labor, and acquired second language varieties of the regional varieties spoken by them. During the second stage, the so-called *société de plantation*, a large number of new slaves arrived who had little or no contact with the colonizers and thus acquired the second language varieties of the European language spoken by the earlier slaves. "This is when the restructuring which accounts for pidginization and creolization took place with significant input from the

speech features of both the earlier group of slaves and the newcomers." (Mufwene, 1991, p. 151). In the final stage no more substrate influence takes place since the importation of slaves has come to an end. The creole now stabilizes and becomes the mother tongue of the creole-speaking population.

Supporters of the diffusionist position of creole genesis McWhorter (1995, 1997a), Hancock (1986, 1987, 1993), Keesing (1988) and Parkvall (1995) attribute an important role to a stable contact vernacular or pidgin (an early West African Pidgin English, an early Melanesian Pidgin English, an early Caribbean English Pidgin, or Kittitian Proto-Creole) for determining the common properties of creole varieties. They argue that some contact language emerged in the interactions between Europeans and non-Europeans which was derived from the native languages of the Europeans. This contact language was then diffused to the different plantation settings within a particular region primarily among the slaves or indentured laborers. In the plantation setting it became an important means of communication between people who did not share a language in common. After this contact language had become diffused and became increasingly used as a medium of inter-ethnic communication it acquired properties from the native languages of its new primary users as the result of contact-induced change from these languages and probably also underwent internal change. The post-diffusion developments account for the distinctive features of the creole varieties which descend from the same ancestor variety.

Scholars such as Alleyne (1971, 1980, 1986, 1993), McWhorter (1997a), Mufwene (1986, 1990, 1996), Singler (1988), and Winford (1998a) can be said to have dynamic

kinds of approaches to creole formation. The positions of these scholars are *not* identical in their details but in their general approach: they argue that creole formation did not involve just one mechanism but involved different degrees of language shift and substrate retention regulated by universal principles (McWhorter, 1997a; Mufwene, 1986b, 1990, 1996; Singler, 1988; Winford, 1998a) typically operating in all language contact settings. That is, creole formation involved the selective application of the following mechanisms: retention of substrate features, adoption of superstrate features, and their adaptation through processes like regularization, relabeling etc.. Scholar such as Mufwene (1996) and Winford (1998a) also argue that the superstrate input was not at all homogenous but consisted of different regional varieties, various second language varieties or pidginized varieties that represented different degrees of approximation to the regional varieties. The substrate input was also not homogenous but consisted of different West African languages. The relative impact of the different mechanisms and inputs on the formation of the grammar of a particular creole depended on the make-up of the setting. Thus, people from different types of plantation societies and different groups within one plantation society showed different patterns of retention, adoption, and adaptation since they were involved in different types of community settings with different patterns of inter-ethnic contact.

The survey of the primary theories of creole formation shows that the contribution of the substrate to the formation of creoles is acknowledged by all of them though in very different ways. They differ from each other in three respects: First, the role they attribute

to the substrate and the superstrate in shaping creole grammar, second, the processes by which substrate features became established in creole grammar, and third, the stages at which substrate influence allegedly occurred. The different claims about substrate influence in creole genesis are primarily due to two facts: First, they have been articulated on the basis of data from creoles formed under very different types of conditions. Second, the data sets on which they were based have not been equally comprehensive and reliable. The goal of this study is to determine which, if any, of the above approaches to creole formation and the question of substrate influence are best suited to account for the facts pertaining to the emergence of the SPC.

1. 3. A survey of the background literature

This section surveys the types of data and methodologies used by previous studies to determine the origin of creole grammar and discusses their relevance to the present study whose aim is to determine a) the role and the nature of the substrate in creole formation, and b) the mechanisms which led to the emergence of substrate influence in creole grammar.

1. 3. 1. Empirical studies on creole formation

Studies investigating the origin of creole grammar fall into three broad groups according to the methodologies and data they employ. One group of studies employs a comparative methodology. They compare structures in a creole and in its putative sources

to establish their degree of similarity. Several studies also adduce additional evidence from more or less detailed data on the nature of the contact setting, besides linguistic data, to adequately determine the sources and mechanisms involved in the formation of a creole.

The majority of the studies using a comparative methodology compare structures in a creole with structures in its putative substrate language(s) to establish the role of the substrate in the formation of creoles (Alleyne, 1980; Baker, 1982, 1993; Bickerton, 1986; Boretzky, 1983, 1993; Comhaire-Sylvain and Comhaire-Sylvain, 1936; Daeleman, 1972; Dalby, 1971; Delafosse, 1925; Frajzyngier, 1984; Huttar, 1981, 1985, 1986; Keesing, 1988, 1991; Lichtveld, 1928, 1929; Lumsden, 1994a; McWhorter, 1992, 1993, 1997a; Migge, 1993, 1998; Mosel, 1980; Robertson, 1993; Siegel, 1998; Singler, 1988; Smith, 1987, 1996, 1998a; Smith, Robertson, and Williamson, 1987). A second group of studies compares creole and superstrate structures (Chaudenson, 1974, 1989, 1992; Smith 1987; Bruyn and Veenstra, 1993) to determine the role of the superstrate in the emergence of the creole. A third group of studies using a comparative methodology compares creole structures to both substrate and superstrate structures to establish the role of both in the formation of a creole (Brousseau, 1989; Brousseau, Filipovich, and Lefebvre, 1989; Clements, 1996; Koopman, 1986; Lefebvre, 1993, 1996, 1997; Lefebvre, Brousseau, and Filipovich, 1989; Ndayiragije, 1989). Finally, some studies compare structures of several present day creoles to determine whether all creoles, or a particular subset of them, i.e. all English-lexicon creoles, have a common origin (Alleyne, 1980; Hancock, 1969, 1971, 1987; McWhorter 1993, 1995, 1997c).

A second group of empirical studies employs a diachronic analysis for determining the inputs and mechanisms involved in the formation of a creole. These studies analyze the language use in historical documents written in a creole "as a source of information about the genesis and historical development of these languages" (Arends and Bruyn 1995, p. 111). Since this type of historical reconstruction is crucially dependent on the availability of representative, reliable, and sufficiently large corpora of historical records on a specific language, this line of research has so far been relatively underrepresented in the field because such data has only been made available for a small number of creoles. In-depth analyses have been carried out only on African American Vernacular English (Schneider, 1989, 1983; Winford, 1997c, 1998b), Sranan (Arends, 1986, 1989; Bruyn, 1995a, 1995b, 1996; Plag, 1992, 1993, 1995; Smith, 1987), Saramaccan (Aceto, 1996; Smith, 1987), Haitian (Carden and Steward, 1988), and Negerhollands (Hinskens and van Rossem, 1995; Muysken and Van der Voort, 1991; Stein, 1995).

Finally, a third line of research attempts to determine the sources and mechanisms of creole genesis on the basis of a synchronic analysis of data from mainly one or a few creoles invoking putative universals of language change. This group, represented by Bickerton (1981, 1984), Byrne (1987), and Veenstra (1996), assumes that as a result of the unique process that gave rise to their formation[3], all creoles are characterized by a

[3]This refers to the bioprogram or universalist hypothesis of creole genesis which assumes that creoles are a direct reflection of the innate linguistic categories of the human species, see above.

specific bundle of linguistic features. The aim of these studies consists in proving the existence of these features in creoles and their derivation from putative universal principles.

While all three approaches make an important contribution to research on creole genesis, it seems that a comparative approach which a) establishes the nature of the contact setting, and b) compares creole structures to those of its input languages is most suited for the present study. This allows to determine a) the nature and the socio-historical significance of the substrate input in the contact setting, b) the degree of similarity that exists between a creole and its putative substrate, and c) the possible mechanisms involved in the emergence of substrate influence in a creole.

A diachronic analysis using historical data on the creole and its substrate combined with a socio-historical study of the contact setting would be most appropriate to study the contribution of the substrate to the formation of a creole. Given, however, that there is only a little, if any, and often inappropriate data — written by non-native speakers and only from the later periods when the creole had already stabilized — available on creoles and particularly their substrates this approach cannot be adopted for the present study. Given the type of data available, the diachronic approach seems more suited for studying the development of a creole once it has emerged as a separate code.

An analysis using only synchronic data on one or several creoles also seems unsuitable for determining the role of the substrate in the formation of a creole since such data alone is not able to assess the nature and the impact of the substrate.

Given the methodological and thematic focus of the present study, the following section surveys only empirical studies which compare features in a creole and its putative substrates.

1. 3. 2. Empirical studies of substrate influence in creole formation

This section surveys studies on substrate influence which used a comparative methodology to determine the issues which arise in this type of study. The survey focuses on the followings issues: (i) the kinds of creoles used to study substrate influence, (ii) the linguistic levels on which substrate influence is established, (iii) the kinds of data used, and (iv) the methods of description and comparison.

1. 3. 2. 1. Creoles used to study the contribution of the substrate in creole formation

Comparative studies attempting to establish the role of the substrate in the formation of a creole generally focus their attention on creoles that show a great deal of divergence from their superstrate, so-called "radical creoles". They are generally languages which are known to have formed and continue to exist in situations with very restricted access to and input from their respective superstrate. They are thus assumed to demonstrate substrate influence (or bioprogram features) most clearly.

The creole that has so far figured most prominently in the research on substrate influence in creole formation is Haitian Creole (Bickerton, 1986; Brousseau, 1989; Brousseau, Filipovich, and Lefebvre, 1989; Koopman, 1986; Lefebvre, 1989, 1993, 1996,

1997; Lefebvre, Brousseau, and Filipovich, 1989; Lumsden, 1994a; Ndayiragije, 1989). Most of this research has been conducted as part of a research project on the genesis of Haitian Creole.[4] One of the goals of this project was to compare aspects of Haitian grammar to those of its superstrate (French) and its putative substrate (Fongbe) to establish the degree of similarity between them and Haitian. Studies on substrate influence were also carried out on the Surinamese languages Sranan, Saramaccan and Ndyuka. Sranan was compared to several West African languages (Lichtveld, 1928, 1929) and Akan (Migge, 1993), Saramaccan was compared to the Kikongo group of languages (Dealman, 1972; Huttar, 1986) and the Kwa group of languages (Bickerton, 1986; McWhorter, 1992, 1993, 1997a; Smith, 1996, 1998a), and Ndyuka was compared to Kwa in general (Huttar, 1981, 1985) and Akan and Gbe in particular (Migge, 1998), and Kikongo (Huttar, 1986). Other Atlantic creoles that were studied with respect to determining the role of substrate influence in creole formation are Berbice Dutch (Robertson, 1993; Smith, Robertson, and Williamson, 1987) which was compared to Ijo and Liberian Settler English (Singler, 1988) which was compared to the Kru and the Mande group of languages. Among the Austronesian creoles Melanesian Pidgin and Solomons Pidgin were compared to Central Eastern Oceanic languages (Keesing, 1988, 1991; Siegel, 1998) and Tok Pisin was compared to Tolai (Mosel, 1980). Except for

[4]The project is called "*La genèse du créole haïtien: Un cas particulier d'investigation sur la forme de la grammaire universelle*" and is based at the Université du Québec à Montréal.

Bickerton (1986), Mosel (1980) and possibly Huttar (1981) all the cited studies found significant correspondences between the creole and its putative substrate.

1. 3. 2. 2. The linguistic structures treated in substrate studies

Several linguistic levels have been the focus of investigation in comparative studies on substrate influence. One group of studies, particularly earlier studies, focused primarily on the lexico-semantic correspondences between a creole and its substrate (Baker, 1982, 1993; Comhaire-Sylvain and Comhaire-Sylvain, 1936; Dealeman, 1972; Delafosse, 1925; Huttar, 1985; Turner, 1949). The majority of studies, particularly more recent ones, however, have generally concentrated on grammatical correspondences between a creole and its putative substrate. Several studies examined correspondences on a relatively wide range of linguistic levels (Boretzky, 1983; Clements, 1996; Mosel, 1980; Smith, Robertson, and Williamson, 1987), one dealt with phonological correspondences (Smith, 1987), some compared derivational morphology (Brousseau 1989; Brousseau, Filipovich, and Lefebvre, 1989; Lefebvre, Brousseau, and Filipovich, 1989; Ndayiragije 1989; Robertson 1993), but the majority of studies examined correspondences on the morphosyntactic level (Alleyne, 1980; Bickerton, 1986; Corne, 1983; Frajzyngier, 1984; Huttar, 1981; Keesing, 1988, 1991; Koopman, 1986; Lefebvre, 1989, 1993, 1996, 1997; Lumsden, 1994a; McWhorter, 1992, 1993, 1997a; Migge, 1993, 1998; Robertson, 1993; Siegel, 1998; Singler, 1988; Smith, 1996, 1998a). The shift of focus from lexico-semantic to grammatical correspondences is due to three reasons: First, it is in reaction to the

claims of the bioprogram or universalist hypothesis, the main counter hypothesis to the substrate hypothesis, which draws its evidence exclusively from structural properties of creoles (Mufwene, 1990). Second, structural properties, rather than lexical items, are assumed to be transferred only as the result of relatively intense contact (Thomason and Kaufman, 1988) and are thus viewed as being more indicative of that ethnolinguistic group's impact in the contact setting. Third, structural data on both the substrate languages and creoles has become increasingly available for comparison only in recent years.

From the point of view of representativeness, it seems that studies which cover a wide range of structural features or representative subsystems on one or preferably on several linguistic levels are best suited for providing a detailed insight into the role of substrate influence and the mechanisms that gave rise to it. Studies dealing only with infrequent or marginal phenomena within the grammar of a creole easily run the risk of misrepresenting the impact of the substrate for the whole grammar if not imbedded in a larger study. All of this suggests that a study of substrate influence should focus on a central and representative subsystem of grammar or several parts thereof in order to have a broad basis on which to make judgements on the role, nature and mechanisms of substrate influence in the formation of that creole.

1. 3. 2. 3. The sources

The successful demonstration of substrate influence or lack thereof crucially depends on the selection of an appropriate corpus. This section surveys studies on substrate influence with respect to two issues related to the selection of the data: (i) what criteria were used for selecting a putative substrate language and (ii) what type of data was used for the description and the comparison of the linguistic phenomena under investigation.

1. 3. 2. 3. 1. Criteria for selecting the substrate languages

With respect to the kinds of criteria used for selecting the relevant substrate(s), previous studies fall into roughly two groups: First, there are those which rely on fairly general considerations without adequately considering the facts of the specific contact setting (Alleyne, 1980; Bickerton, 1986; Boretzky, 1983; Brousseau, 1989; Brousseau, Filipovich, and Lefebvre, 1989; Daeleman, 1972; Frajzyngier, 1984; Huttar, 1981, 1985; Koopman, 1986; Lefebvre, 1993, 1996, 1997; Lefebvre, Brousseau, and Filipovich, 1989; Lumsden, 1994a; McWhorter, 1992, 1993, 1997a; Migge, 1993; Mosel, 1980; Ndayiragije, 1989; Siegel, 1998) and second, there are those which carefully consider the specific contact setting (Baker, 1982, 1993; Clements, 1996; Keesing, 1988, 1991; Migge, 1998; Robertson, 1993; Smith, 1996, 1998a; Smith, Robertson and Williamson, 1987; Singler, 1988). Among the first group of studies, some selected the relevant substrate languages on the basis of fairly general knowledge of the regions and ethnic groups from

which slaves or indentured labor were drawn (Bickerton, 1986; Boretzky, 1983; Huttar, 1981, 1985; Koopman, 1986; McWhorter, 1992, 1993, 1997a). They typically consider data from representative varieties of a fairly wide range of languages or language groups whose speakers could have possibly been resident within the known recruitment areas without determining in detail whether they were at all or in significant numbers involved in the contact setting that gave rise to the creole under investigation.[5] These studies do not consider such an approach problematic since they operate under the assumption that only the structural features common to all or most of the substrates are likely to survive in the creole (Boretzky, 1983). Viewed from a sociolinguistic perspective, the relatively loose criteria for selecting the relevant substrates and the general assumptions of such studies, however, clearly undermine the significance of the findings from their linguistic comparisons.

Other studies from the first group select the substrate languages on the basis of more specific evidence on the contact setting. They either base their choice of a substrate language on prior linguistic evidence, generally from the lexical level (Daeleman, 1972), or on available records on the origin of the slaves or the indentured labor brought to a specific plantation colony (Alleyne, 1980; Brousseau, 1989; Brousseau, Filipovich, and Lefebvre, 1989; Daeleman, 1972; Lefebvre, 1993, 1996, 1997; Lefebvre, Brousseau, and Filipovich, 1989; Lumsden, 1994a; Migge, 1993; Ndayiragije, 1989), or on a combination of both (Mosel, 1980). They do not, however, carefully consider crucial factors about the

[5]The geographical extention of the recruitment areas is not discussed.

contact setting at the time of creole formation which have an important bearing on the identification of the relevant substrate languages: First, they do not carefully determine the ethnic composition of the population of slaves or indentured laborers at the time of a creole's formation. Second, they do not consider in detail the relative social/numerical impact of the speakers of the different substrates at the time of creole formation. Third, they do not carefully distinguish the actual period of formation and stabilization of a creole from the pre- and postdevelopmental periods on the basis of available data.[6] Finally, they do not investigate at all or to a sufficient degree the grammatical homogeneity of the languages that have been classified as a group, such as the Kwa group of languages. Given that these studies do not adequately consider the above issues in choosing the substrates, the findings from their linguistic comparisons need to be taken with caution.

The second group of studies chose the substrate(s) by carefully considering all the relevant facts outlined above concerning the contact setting at the time of the creole's formation (Baker, 1982, 1993; Keesing, 1988, 1991; Migge, 1998; Robertson, 1993; Smith, 1996, 1998a; Smith, Robertson and Williamson, 1987; Singler, 1988). The results from the linguistic comparisons of these studies would thus have a significantly higher degree of credibility. In sum, it is clear that a study of substrate influence needs to

[6]It is also important to determine whether the creole speech community has undergone significant demographic and social change since the creole's formation because such change might have had linguistic consequences which could have been responsible for 'covering up' substrate influence from the time of the creole's formation.

carefully determine the contact setting out of which a creole emerged to select the relevant substrate languages for investigation.

1. 3. 2. 3. 2. The type of data used in the analysis.

Besides the choice of the relevant substrate language, the selection of the appropriate data set(s) for the comparative analysis has an important bearing on the validity of its findings. This section surveys the studies investigating correspondences in structural properties between a creole and its substrate with a view to determining the sources and the comparability of their data sets.

As pointed out above, for a study on substrate influence during a creole's formation it would be most appropriate to investigate data dating from the time of creole formation. Since such data is generally not available, however, studies have to resort to the most appropriate available data. This involves locating a corpus from both the substrate and the creole which (i) was collected using similar techniques, (ii) used native speakers who have similar social backgrounds, (iii) represent close approximations to the varieties used at the time of creole formation, and (iv) is sufficiently extensive to allow an in-depth study of the phenomena under investigation. Since the (historical) representativeness or relative conservativeness of modern data may have an important effect on the possibility of locating substrate influence or lack thereof, I further discuss issues such as methods of data collection and choice of native informants which have a critical influence on the nature of the data in Chapter Two where I present the data used for this study.

Previous studies fall into several groups with respect to the data they used. A number of recent studies, particularly those carried out as part of the project on the genesis of Haitian Creole, rely on extensive data sets from the modern descendants of the creole and its substrate which were collected through formal elicitations with native speakers of these varieties (Brousseau 1989; Brousseau, Filipovich, and Lefebvre, 1989; Koopman, 1986; Lefebvre, 1989, 1993, 1996, 1997; Lefebvre, Brousseau, and Filipovich, 1989; Lumsden, 1994a; Migge, 1993; Ndayiragije, 1989; Smith, Robertson, and Williamson, 1987). In the case of most studies it is not entirely clear from the description of the data how conservative or (historically) representative the varieties used are and whether they come from socially comparable groups of speakers. Studies like Migge (1998) are similar to the above ones but differ with respect to some features: First, they include data from formal elicitations and natural recordings for the creole while the substrate data only come from formal elicitations. Second, the social characteristics of the native speakers and thus the relative conservativeness of the collected data is partially different for the creole and the substrate. A second set of studies such as Singler (1988) and Robertson (1993) rely on modern data sets which were either elicited (Clements, 1996; Robertson, 1993) or taken from natural recordings (Singler, 1988) for the creole but draw their data for the substrates (and superstrates) from the available literature. In the case of these studies, it is also not clear whether the substrate data is entirely representative and comparable to the creole data. A third set of studies either draws all (Bickerton, 1986) or the majority of its data (Huttar, 1981; Siegel, 1998) from the

contemporary literature. Information about how and from whom it was collected and thus questions of representativeness and comparability are not addressed at all in these studies. Finally, a fourth set of studies uses both contemporary and older data on the creole and where possible also on the substrate drawn primarily from the literature. Some studies (Boretzky, 1983; Keesing, 1988; McWhorter, 1992, 1993, 1997a; Mosel, 1980; Smith, 1987, 1996, 1998a) are more or less explicit about the actual sources from which they obtained their data. But as in the case of all other studies questions of representativeness and comparability are not addressed at all in these studies.

The above overview of the kinds of data sets used to prove substrate influence in creole formation shows very clearly that the findings from all previous studies need to be interpreted with caution since they did not all carefully control for issues such as (historical) representativeness and comparability.

1. 3. 2. 4. Methods of description and comparison

This section surveys the literature on substrate influence with respect to the kinds of methods used for describing and comparing the data. Given the thematic focus of this study — substrate influence on the morphosyntactic level — this brief survey only includes studies which deal with the morphosyntactic level. With regards to their methodology, the studies fall into two broad groups, those which carry out a comprehensive analysis of a feature or construction such as 'take-type' serial verb constructions (Lefebvre, 1989) in both the creole and its substrate (Clements, 1996;

Koopman, 1986; Lefebvre, 1989, 1993, 1996, 1997; Migge, 1998; Singler, 1988) and those whose analysis is not sufficiently detailed (Alleyne, 1980; Bickerton, 1986; Boretzky, 1983; Huttar, 1981; Keesing 1988; McWhorter, 1992, 1993, 1997a; Migge, 1993; Mosel, 1980; Robertson, 1993; Siegel, 1998; Smith, 1996; Smith, Robertson, and Williamson, 1987). The first group of studies determines how significant the similarities between a creole and a putative substrate structure are on the basis of a detailed description of all its semantic and syntactic properties in both the creole and its putative substrate, and possibly other languages which were found to play an important role in the contact setting. That is, these studies do not just investigate superficial similarities such as a feature's surface structure and distribution but determine the full range of its properties in both languages; for example, they determine the range of the meanings and functions the verb 'take' can express as a main verb and as a serial verb in Haitian and its substrate, the possible non-serial constructions it alternates or overlaps with, the types of verbs it combines with, its categorical status etc. in both the creole and its putative substrate. The correspondences established by these studies are likely, from a methodological point of view, to provide substantial insight into the role of substrate influence.

The other group of studies generally determines the significance of the similarities between a creole and its substrate on the basis of partial or superficial descriptions; for example, in Huttar (1981) the description of serial verb constructions in the Surinamese creoles and their putative substrates is limited to their most general properties such as

their surface word order, the main verbal origin of the serial verbs, and their most prominent functions. Important aspects such as the semantic properties of the group of verbs that may function as complements to the serial verbs and the categorial status of the serial verbs are not discussed.

A drawback of all studies on substrate influence is that they do not explicitly address criteria for determining the relative importance of specific syntactic and semantic properties of a feature for determining substrate influence. That is, they do not discuss which property or bundle of properties of a particular feature are crucial for establishing substrate influence and which only play a 'supporting role'. In Chapter Four which presents the linguistic analysis and comparison of specific subsystems of grammar, I discuss the analytical shortcomings of previous studies in more detail and propose possible ways to amend them.

1. 4. Scope and structure of the study

1. 4. 1. The main research questions

The main research question deals with the impact the substrate languages had in the formation of the SPC. Specifically, the study tries to address three issues intimately related to this question: (i) what was the nature of the substrate input, (ii) what was the degree of its involvement, (iii) what were the mechanisms that gave rise to it. In order to address these issues, the study draws on both sociohistorical data on the contact setting and data from a systematic description and comparison of two subsystems of grammar in

the creole and its putative substrate. Following Thomason and Kaufman (1988) and Thomason (1993) such an undertaking has to involve the following steps:

1. Identify all the languages in the contact setting at the time of the creole's formation,
2. Identify the relative impact of their speakers in this contact setting, and
3. Identify the exact organization of their grammar.

1. 4. 2. The notion of substrate influence

The present study attempts to investigate the formation of the SPC from the perspective of frameworks developed for the study of contact-induced language change. Given this methodological angle of the study, it seems necessary at this point to define the notion of 'mechanisms of contact-induced language change' as they are being referred to throughout this study.

In the literature on language contact two basic mechanisms of language change are distinguished: borrowing and interference through shift.[7] The two differ from each other with respect to the directionality of the transfer, the time required for a change to occur, and the relative order of linguistic items that get transferred. "Borrowing is the incorporation of foreign features into a group's native language by speakers of that language:" (Thomason and Kaufman, 1988, p. 37) the native language is maintained but

[7]Researchers on second language acquisition refer to the mechanism of contact-induced language change that historical linguists call 'interference through shift' by the term '(substratum) transfer' (D. Winford, personal communication).

changed by the addition of the incorporated features. Interference through shift is the incorporation of native features or features from the first language of some group into the language of another group which they are in the process of acquiring: the recipient language is changed by the addition of the incorporated features while the donor language may or may not be maintained and changed.

Borrowing and interference through shift further differ with respect to the amount of time "required for far-reaching structural modifications" (Thomason and Kaufman, 1988) to take place. In cases of settings in which the different groups maintained their first language, (extensive) structural borrowing generally emerge as the result of "several hundred years of intimate contact" (Thomason and Kaufman, 1988, p. 41) between the different groups. By contrast, in settings in which one group of people is acquiring the language of another, "the interference features will enter the TL [target language] as spoken by the shifting [acquiring] speakers quite rapidly [possibly within one generation] though the adoption of these features by the original TL speakers may take more time." (Thomason and Kaufman, 1988, p. 41).

According to Thomason and Kaufman (1988) borrowing and interference through shift situations also differ with regard to the relative order of the kinds of linguistic features transferred. In borrowing situations speakers first borrow vocabulary items from the other language and only as the intensity of the contact increases, will they adopt first phonological features and later morphosyntactic ones. By contrast, in situations in which speakers of one language acquire another, interference from their first language "does *not*

begin with vocabulary: it begins instead with sounds and syntax, and sometimes includes morphology as well before words from the shifting group's original language appear in the TL." (Thomason and Kaufman, 1988, p. 39).

The term substrate influence or substratum interference through shift (Thomason and Kaufman, 1988, p. 38) has thus been used in the literature on genetic linguistics "in relation to those language contact situations involving typically a politically and/or economically dominant group whose superstrate language has been learned imperfectly by the subordinate or substrate group. It attributes to influence from the latter's language(s) the features of the contact situation's new language that deviate from those of the TL." (Mufwene, 1990, p. 2). For the purpose of this study, this 'traditional' definition is too restrictive since it assumes that in order for substrate influence to occur, the substrate population has to have a target of learning, which they aim at or target, and shift to. That is, it suggests that the (primary) mechanism that gives rise to substrate influence is (interference through) shift and that the linguistic outcome of the contact situation is a variety that is genetically related to the targeted variety (Thomason, 1993). The only exception to this are creoles which are seen by Thomason and Kaufman (1988) as cases of shift with an unusually high amount of substrate interference leading to the loss of the genetic affiliation of the language. For the purpose of this study, it is assumed that substrate influence can result from both targeted and untargeted language learning, and may but does *not* need to emerge as the result of language shift (through interference). Substrate influence comes about through the use of first or dominant language strategies in

the speech of bi- or multilingual speakers, or language learners when attempting to communicate with others who do not share the same varieties. Once such first language strategies "have been replicated by different speakers, repeated by most of them, and established in the contact situation's new linguistic system (even as a variable feature), they may be characterized genetically as substrate influence. The latter need not be associated synchronically with multilingual speakers and/or SLA." (Mufwene, 1990, p. 2).

For the purpose of this study, the 'traditional' definitions of the two mechanisms of change are also too restrictive since they assume that one language is changed under the influence of another but retains its genetic affiliation. In the case of the formation of a new language it seems more appropriate to assume that its creators forge a new linguistic system out of linguistic material from the different linguistic sources (languages) accessible to them. One of the sources of linguistic material available to them is their native language(s). In this study, structural or lexical features derived from the first or dominant language of the creators of the new language are referred to as instances of (substrate) retention. Structural and lexical features derived from other languages, such as the superstrate, whose speakers were not actually part of the formation process of the new language, are referred to as borrowings.

In both borrowing and interference through shift in contact-induced language change and in borrowing and retention in contact-induced language creation linguistic features may be retained from the native language or be borrowed from another language with part

or all of their original shape, their original semantic content, and their original syntactic distribution. That is, borrowing and substratum influence may take various forms, involving varying degrees of adaptation and reanalysis. These involve mechanisms such as regularization or leveling, reduction, extension, and relabeling. Leveling or regularization refer to the "complete or partial elimination of morphophonemic alterations that do not seem to signal important differences in meaning or function." (Hock and Joseph, 1996, 155). Reduction refers to the elimination of syntactic and semantic properties of lexical items or grammatical functions of constructions. (Over)extension refers to the use of grammatical constructions or lexical items in new but possibly related functions and contexts. Relabeling refers to a process in which the phonological form of a lexical item is replaced with a phonological form from another language. The degree of change a linguistic feature will undergo and the mechanisms that will bring the change about are crucially dependent on several extra-linguistic properties of the contact setting such as the degree of bilingualism among the entire population and the length and intensity of the contact between the speakers of the different languages (Thomason and Kaufman, 1988, pp. 46-56).

For substrate influence or retention to be a valid explanation it is crucial that (i) the property in question was not found in the superstrate language, (ii) the property could not have emerged as the result of internally motivated change (alone), (iii) the property was found in the putative substrate language at the time of contact, and (iv) that the

putative substrate language was present in the contact setting at the time when the feature emerged (Thomason and Kaufman, 1988, p. 110-115).

1. 4. 3. The structure of the study

The present study is organized as follows: Chapter Two discusses the general methodology for this study in more detail and introduces the data used for both the linguistic and sociohistorical study. It addresses three issues: First, it discusses a method for determining the possible languages, the relative impact of their speakers, and the mechanisms involved in the contact setting that gave rise to the SPC. This involves first, selecting the relevant social parameters that have an impact on the linguistic outcome of a contact setting and the possible conclusions that can be drawn from it for the purpose of this study and second, describing the available data on the contact setting out of which the SPC arose. Second, it discusses ways of selecting the appropriate data for the comparative study. This requires discussing several issues: (i) the relevance of synchronic data for studying events from the past, (ii) the relationship of the modern creole (Ndyuka) and its substrate (Gbe) to their earlier forms, the SPC and earlier Gbe respectively, (iii) the methods for collecting synchronic data that represent close approximations to their earlier forms, and (iv) the social background of the informants and the settings in which the data was collected. Third, it briefly discusses the two subsystems under investigation and the issues that guided their investigation.

Chapter Three presents the relevant determinants of the contact setting in which the SPC developed and attempts to determine the sources and primary mechanism involved in its formation.

Chapters Four and Five present the linguistic analysis. They include the following: First, a discussion of the prior literature on both the structure of the two grammatical subsystems under investigation, serial verb constructions and copular and ascriptive structures, and on the role of substrate influence in their formation; second, an exhaustive syntactic and semantic description and comparison of the two subsystems in Ndyuka and Gbe based on data from spontaneous recordings and elicitations; third, an assessment of the implications of the similarities and differences found for each subsystem between the two languages for determining the role, the nature, and the mechanisms of substrate influence in the formation of the SPC.

Chapter Six contains the following information: First, it discusses the role of the substrate in the formation of the SPC based on the findings from this study. Second, it discusses the formation of the SPC. Third, it discusses how the formation of creoles like the SPC relates to other outcomes of contact-induced language change or creation. Fourth, it evaluates the different theories of creole formation in the light of the findings from this study.

CHAPTER 2

METHODOLOGY AND DATA

2. 0. Introduction

This chapter discusses the general methodology for determining substrate influence proposed by Thomason and Kaufman (1988) in more detail and describes the data used for this study. It addresses three issues: (i) how to identify the languages involved in the contact setting and the relative impact of their speakers, (ii) how to select the appropriate data for the linguistic study, and (iii) the methods of description and comparison.

2. 1. The methodology for the sociohistorical analysis

The goal of this section is twofold: First, it discusses the relevant social parameters of the contact setting and the insights they can provide for the present study to set the

boundaries "within which purely linguistic theorizing must operate." (Thomason, 1993, p. 280) since "it is the sociolinguistic history of the speakers [...] that is the primary determinant of the linguistic outcome of language contact." (Thomason and Kaufman, 1988, p. 35). Second, it describes the data used in this study.

2. 1. 1. Determining the social parameters in contact-induced language change or creation

The literature on contact-induced language change or creation (Thomason and Kaufman, 1988) and on the social matrix of creole formation in particular (Alleyne, 1971, 1993; Arends, 1994a, 1994b, 1995; Baker, 1982, 1984, 1990, 1991; Baker and Corne, 1982, 1986; Bickerton, 1984; Grimshaw, 1971; LePage, 1960, 1977; Mintz, 1971; Mufwene, 1996; Polome, 1983; Price, 1976; Singler, 1986, 1990, 1992, 1993, 1995, 1996; Woolford, 1983), ethnography (Duranti, 1997), and historical sociolinguistics (Milroy, 1992) suggest that a description of the social contexts in which (contact-induced) language change or creation occurs has to include the following information: (i) a description of the social composition of its population and its demographic development, (ii) a description of the ethnolinguistic make-up of the different social groups, (iii) a description of the patterns of interaction in various community settings. This type of community description then serves as a basis for determining the possible sources and their relative impact as well as the mechanisms that led to a particular linguistic outcome of contact-

induced language change or creation. Before discussing the different components of such an analysis in detail, it is important to raise the issue of how to determine the relevant time period for which such an analysis should be made.

2. 1. 1. 1. Locating the formation period

According to Thomason and Kaufman (1988) and Thomason (1993) any study on contact-induced language change or creation has to establish the time period during which a particular linguistic change or the emergence of a new language occurred. In the case of the formation of new languages, such as creoles, pidgins, and bilingual mixed languages, this means locating the time at which it crystallized as a separate linguistic system and the relevant time period (immediately) preceding this event. In the literature on pidgin and creole genesis considerable disagreement exists over this issue, however. The disagreement stems in large part from the fact that there is no specific period of time, such as 50 years after initial contact, in which the crystallization of a new language takes place. The point in time at which a new languages emerges is highly dependent on the make-up of the contact setting (Mufwene, 1996; Singler, 1990, 1996). Thus researchers working on different situations are likely to hold different positions on the time it takes for a new language to crystallize and the relevant time frame that needs to be taken into consideration to account for its formation. However, since it is important to draw a fairly clear distinction between the period of emergence and the post-emergence period because

they involve different sources and mechanisms (Thomason, 1993, p. 281), I try to outline some ways for differentiating between the two.[1]

Determining the time of a change or the crystallization of a linguistic system can be done on the basis of the analysis of language use in historical documents from the relevant period. Since this type of data is not available for the SPC (at this point in time), however, the study has to focus on extra-linguistic evidence such as the social history of its speakers. This focus seems justified since, first, the formation of new contact languages results from the contact between speakers of different mother tongues and is by definition primarily influenced by extra-linguistic factors (Thomason and Kaufman, 1988). Second, the degree and type of (contact-induced) language change or creation generally correlates with the nature of the contact setting (Thomason, 1993). This study therefore has to first, identify the type of setting in which contact languages such as creoles typically emerge and second, determine, based on a detailed analysis of the social history of the creole's speakers, when and if such a setting obtained. Creoles emerged in settings involving contact between a dominant minority group and a linguistically heterogeneous majority group of immigrant laborers who did not share a common means of communication. Since the immigrant laborers also had only very limited

[1]The (pre-) and post-crystallization phase differ in their sociolinguistic make-up in at least two ways: First, in the (pre-)crystallization stage the substrates and the superstrates are in contact while in the post-crystallization stage the newly emerged language is also part of the situation. Second, the (pre-)crystallization stage leads to the emergence of a new language while the post-crystallization stage involves contact-induced change of an already existing language.

access to the language varieties spoken by the minority group, they did not have the motivation and the opportunity to acquire much of the dominant group's language but had to forge their own means of communication.

The focus on the formation period of a new language does not, however, mean that later (contact-induced) change can be completely disregarded. Since such later changes may obscure the linguistic evidence of the mechanisms and sources involved in the formation, the analysis has to pay attention to such later changes as well.

2. 1. 1. 2. The social parameters

This section presents the kind of information a description of the contact setting in which creoles emerged should include to provide insights into the sources and mechanisms involved. As already noted creoles emerged in settings involving contact between a dominant minority group and a linguistically heterogeneous majority group of immigrant laborers who did not share a common means of communication. Since the immigrant laborers also had only very limited access to the language varieties spoken by the minority group, they probably did not have the motivation and the opportunity to acquire much of the dominant group's language but had to forge their own means of communication (Thomason, 1997, p. 78). Given these conditions, the description of the contact setting needs to discuss the following parameters: the demographic make-up and development of the contact setting's population, their ethnolinguistic background, and the

nature of the interaction between the different social groups in the setting (Alleyne, 1971, 1980; Baker and Corne, 1982; Bickerton, 1984; Mintz, 1971; Mufwene, 1996; Singler, 1990, 1993).

Determining the demographic make-up and development requires first, charting the growth of the entire population and that of its different social and/or ethnic subgroups since the rapidity and extent of this growth have been shown to be crucial factors in creole formation (Baker and Corne, 1982, 1986; Singler, 1990, 1993). Second, it requires establishing the factors influencing the growth of the population and the population's age composition to determine who the most likely creators of the creole were and what some of their social characteristics, such as their ethnic background, age range, and regional background were. This kind of demographic information gives a first insight into the intensity of the contact among the various groups. That is, if the groups in contact differ very much in their size and possibly also in their age and ethnic composition, their frequency of interaction tends to be less than if they were fairly similar with respect to these characteristics.

Establishing the ethnolinguistic background of a population requires determining the regional, ethnic, and social origin of the population, and their linguistic repertoire. This helps to narrowly determine first, the nature of the specific linguistic inputs in the contact setting and second, the relative linguistic heterogeneity in the population which is a necessary condition for the emergence of a new contact language such as a creole, as

distinct from other outcomes of language creation such as bilingual mixed languages such as Media Lengua.

Determining the patterns of interaction between and among the members of the different social groups requires determining the following information: the nature of the community settings, the types of contact in work and non-work-related settings, the social and physical loci of inter- and intragroup interaction, the purposes of inter- and intragroup interaction, the frequency of inter- and intragroup interaction, the power relationships among the groups and the official institutions of power, the official codes for inter- and intragroup interaction. This kind of information helps to establish the degree of contact between the existing population and the newly arriving population, and among the members of the newly arriving population and among the members of the existing population. As pointed out in Chapter One, the intensity of the contact plays an important role in determining the mechanisms of contact-induced change or creation. In addition, it helps to narrowly determine who the creators of the new contact language were, which languages were involved in its formation, and for what purposes and in which settings it was created.

2. 1. 2. The data used to establish the sociohistorical matrix of the SPC's formation

This section presents the kind of data used in this study to determine the demographic development of the population in Surinam, their ethnolinguistic background, and the community settings and patterns of interaction at the time of the formation of the

SPC. As discussed in detail below (see, Chapter Three), the sociohistorical information suggests that the formation of the SPC most likely took place between 1651 and 1720.[2] Thus the data for determining the demography, ethnolinguistic composition, and the patterns of interaction has to come from or be relevant to this period. Since the different social parameters have to be established on the basis of partially different data, I discuss the data used in this study in relation to the different social parameters discussed above.

The information on the demographic development and the ethnolinguistic background of the early Surinamese population is taken from Arends (1994a, 1994b, 1995, 1998) and from Pazzi (1979). Arends (1994a, 1994b, 1995, 1998) is primarily based on Postma (1990) and partly also on Manning (1990), Mulert (1917), Rens (1953), Van der Linde (1966), Van Eyck-Benjamins (1927), Voorhoeve and Lichtveld (1975). It provides information about (i) the development of the entire population and its main ethnic groups, (ii) the factors that determined this development, (iii) the age distribution among the two main ethnic groups, and (iv) the regional origin of the two main ethnic groups. Pazzi (1979) provides insights into the regional origin of a large portion of the Africans, those brought to Surinam from the Slave Coast. Below I briefly characterize the type of data used by the different authors.

Postma (1990) is a very detailed study on the Dutch slave trade. Although it does not specifically deal with Surinam but rather with the entire Dutch slave trade, it is highly

[2]The actual formation most likely took place between 1680 and 1720 but the developments between 1651 and 1680 seem important since they give insights into the nature and the origin of the superstrate input.

useful for determining the demographic development of the early Surinamese population and their ethnolinguistic background "since the Dutch trade accounted for practically all of the import to Surinam throughout the slavery period." (Arends, 1995, p. 239). It is based on careful archival research on the records from the Dutch slave shipments to the New World and on records from the administration of the Dutch colony of Surinam. The records from the slave shipments include 581 shipments which landed some 200,000 slaves in Surinam between 1675-1803. Most of the documents provide information "on the numbers of slaves and on the place and year of their embarkation and disembarkation..." (Arends, 1995, p. 239). "For 51 shipments additional information regarding age and sex of the slave cohorts is available." (Arends, 1995, p. 239). The administrative records are head tax payment statistics.

Manning (1990) is a study about slavery in Africa and its effects on the demographic development of the African societies in the areas where the slaves in the transatlantic slave trade were drawn from. It is based on quantitative studies of the transatlantic slave trade in general and in different African locales and on studies of the institutions and social conditions of slavery in Africa and the Americas.

Most of the other sources dealt specifically with the population in Surinam. The short article by Mulert (1917) provides insights into the composition of the European population in Surinam in 1675 based on letters by the interim governor of Surinam. The letters give lists of the people residing in the Dutch colony of Surinam, such as *de lijste van Engelsen, die van meening sijn uit deze colonie te vertrecken* (the list of English who

want to leave this colony). Rens (1953) treats the sociohistorical background of the emergence of Sranan (the plantation creole). His demographic data are based on calendar state papers. Van der Linde (1966) deals with the church in early Surinam (1667-1689). He determines the regional origins of the white population during this period on the basis of marriage records. Van Eyck-Benjamins (1927) discusses the development of the English colony of Surinam. It is not entirely clear what his estimates are based on. Voorhoeve and Lichtveld (1975) discusses the sociohistorical background of the formation of the plantation creole. It is based on various types of historical documents.

Pazzi (1979) is a very detailed study of the history of the Ajatado (Gbe) population from roughly the 11th century up to the end of the 19th century. It is based on both archival data, primarily accounts of European travelers, merchants, and government officials, and on the local oral tradition of several of the main Gbe ethnic groups. To date, it seems to be one of the most detailed and richest accounts of Gbe history.

The data on the patterns of interaction are taken from Hoogbergen and de Theye (1986), Muyrers (1993), Oostindie (1989), Rens (1953), Van Lier (1971), Van Stipriaan (1993), and Voorhoeve and Lichtveld (1975). They provide information about (i) the community settings, (ii) the official institutions of power, (iii) the official codes for inter- and intragroup interaction, (iv) the occupations and social and physical living arrangements of the different social groups, (v) the social and physical loci of inter- and

intragroup interaction, (vi) the purposes of inter- and intragroup interaction, and (vii) the frequency of inter- and intragroup interaction.

Hoogbergen and de Theye (1986) deals with the living conditions of the slaves in Surinam in general and that of enslaved women in Surinam in particular. Its data consist of archival records such as contemporary letters and travelers' reports and of information drawn from previous studies dealing with the living and work conditions on particular plantations. Muyrers (1993) is a study about the life of the slaves on the Surinamese plantations and the kinds of social contact they were engaged in with people from the plantation they lived on and in particular with people from other plantations. The study is based on archival records from the Nepeu collection, which essentially consist of corrections of and additions to two early descriptions of early Surinam, Hartsinck and de Herlein, and from the plantation archive of the Catharina Sophia plantation. Moreover, the study also draws on information from previous studies on plantation societies in the Americas and Surinam in particular. Oostindie (1989) is a study about the development of two plantations in Surinam between 1720 and 1870. It describes the organization, production, and the work and living conditions of their populations based on archival records on these plantations. Rens (1953) studies the sociohistorical background of the emergence of Sranan (the plantation creole). His sociohistorical data come from archival records and from previous descriptions of plantation colonies in the Americas in general and in Surinam in particular. Van Lier (1979) documents the social history of Surinam based on archival records and publications on plantation colonies in the Americas and on

Surinam. Finally, Van Stipriaan (1993) is a fully quantitative account of the socioeconomic development of the colony of Surinam. It treats the development of the Surinamese plantation economy between 1750 and 1863. It is based on "the examination of a large number of archival documents, drawn from 16 different archives, relating to a total of 218 (!) plantations, more than a third of all the plantations that were active during the period." (Arends, 1994a, p. 389).

Most of the studies dealing with the patterns of interaction do not or only partially deal explicitly with the period between 1680 and 1720, the putative formation period of the SPC, since only very little sociohistorical data are available on that period. The studies on the later periods are nevertheless highly relevant to the present study since first, they make explicit references to the period between 1680 and 1720 by way of comparisons and second, the conditions during the formation period only differed from those in the latter period in degree and not in kind.

2. 2. On using synchronic data to reconstruct diachronic events

As discussed in Chapter One (1. 3. 1.), the data for this study should ideally come from the time period in which the formation of the new language took place. Since such data are, however, not available for the languages involved, it is necessary to resort to the closest possible approximation to these data. Thomason (1993) suggests that, all thing being equal,

> "modern languages are readily available for study, and three hundred years is not a very long time in language history, so most structures present now were also present then. Any structures that can be reconstructed for the ancestors of some of the languages in question, such as Proto-Kwa, were almost certainly present in those languages when the PC [the pidgin or creole] emerged if they are currently present in relevant daughter languages." (Thomason, 1993, p. 288-289).[3]

The aim of this section is thus twofold: First, it provides evidence that the modern Ndyuka varieties and the modern varieties of their substrate are valid descendants of the SPC and their earlier respective varieties. Second, it has to establish that these varieties have not undergone significant change since the emergence of the SPC, that is since roughly 1720. The latter prerequisite can be determined on the basis of both sociohistorical and comparative linguistic evidence.

2. 2. 1. The relationship of the different Surinamese creole varieties to the SPC

The descendants of the Africans brought to Surinam as slaves during the transatlantic slave trade fall roughly into seven distinct communities in present day Surinam — the Aukans, the Aluku-Bonis, the Paramaccans, the Kwintis, the Saramaccans, the Matawais, and the coastal Afro-Surinamese population. Their members speak related varieties that are mutually intelligible to varying degrees. The majority of

[3]Joseph (1978) mentions that it is important to also use data from the modern languages in the research on historical syntax if the written documents from previous stages of a language do not provide access to the necessary data or "the complete range of data that may be necessary to confirm or disprove a particular analysis. The crucial grammatical sentences may not occur in the corpus of texts for various reasons—the absence may be accidental, due to the subject matter, induced by the low frequency of the particular sentence-type in speech, etc. Furthermore, texts in general do not contain ungrammatical sentences, so crucial ungrammatical sentences may never be available as data." (p. 2)

these varieties, Aukan, Aluku-Boni, Paramaccan, Kwinti, and the coastal creole, Sranan Tongo, are classified as English-lexified or anglophone creoles since the overwhelming majority of their lexicon is derived from English. The Ndyuka varieties — Aluku-Boni, Aukan, Kwinti, and Paramaccan — are highly mutually intelligible with the possible exception of Kwinti which has been much influenced by Matawai throughout its history. Sranan Tongo is only partially mutually intelligible with the Ndyuka varieties as it has been much influenced by Dutch, the official language of Surinam, and was from the beginning subject to slightly different influences than the Ndyuka varieties. The other two varieties, Saramaccan and Matawai, cannot be readily classified as anglophone creoles since about 30% of their lexicon is derived from Portuguese (Arends, 1994c). Saramaccan and Matawai are highly mutually intelligible but the two are only partially mutually intelligible with the Ndyuka varieties and Sranan Tongo. The Portuguese element most likely entered both Saramaccan and Matawai either as the result of contact between Portuguese Jewish planters and their slaves or contact between slaves speaking a Portuguese-lexified variety and slaves speaking the SPC, or both (Arends, 1998; Smith, 1998b). The contact presumably took place on Jewish-owned plantations on the lower Surinam river prior to the marronage of the founders of the Saramaccans and Matawais. Despite the differences in the origin of their vocabulary, both sociohistorical and linguistic evidence suggest, however, that all the creole varieties in Surinam descend from one common ancestor, the SPC (see Figure 2.1), which developed on the plantations in

Surinam between roughly 1680-1720. The sociohistorical evidence pertaining to the formation of the plantation creole is discussed in detail in Chapter Three.

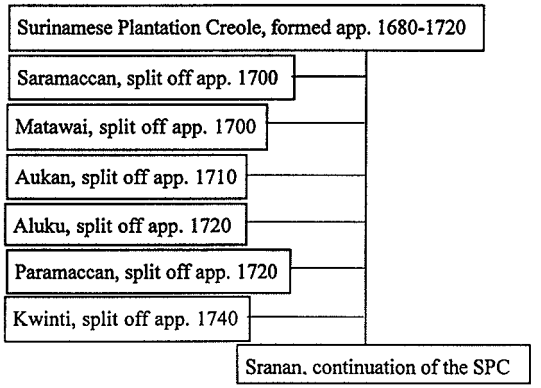
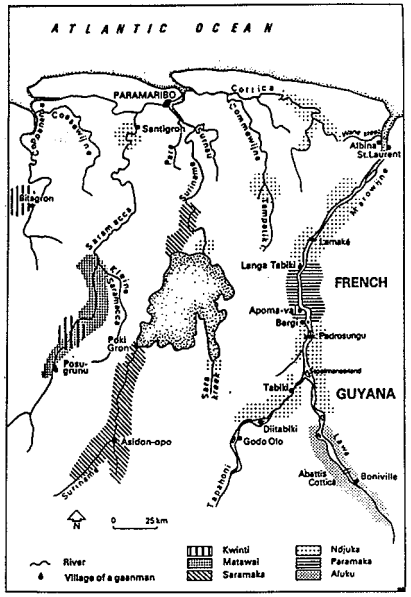


Figure 2.1: The relationship of the different modern Surinamese creoles to the Surinamese Plantation Creole

Sranan Tongo (literally: Surinam Tongue) is the direct continuation of the SPC since "historically [it is] the language of the slaves inhabiting the plantation zone of the coast and the lower reaches of the major rivers." (Smith, 1987, p. 3). In present day Surinam it is the mother tongue of the Afro-Surinamese population living in the coastal region and particularly in the capital of Surinam, Paramaribo, and the rural areas such as Paranam and Coronie etc. (see Map 2.1). It was also adopted as a second language by the white

(Dutch) population and other groups who were brought to Surinam after the abolition of slavery in 1863 such as the Indonesians and East Indians. Nowadays it is also used as the primary lingua franca in Surinam and the Western part of French Guiana for communication between the coastal population and the Amerindians and the other Afro-Surinamese communities residing in the interior of the rain forest, and between the latter two. It is also used as a medium of communication in official settings; historically it was the primary medium of communication of the Protestant and catholic church but since before independence it has also been established as the primary language in political campaigns, health campaigns, and adult literacy education. Sranan Tongo has also been used as a literary language. Since Dutch is still the official language of Surinam and used as the primary medium of communication by the government and in the education system, Sranan Tongo has undergone a fair amount of contact-induced language change under Dutch influence.



Map 2.1: The settlement areas of the Surinamese maroon groups (from Hoogbergen, 1990, p. 67)

The other descendants of the SPC, Saramaccan, Matawai, and the Ndyuka varieties Aukan, Aluku-Boni, Paramaccan, and Kwinti, split off from the SPC as the result of marronage by the founders of the communities with which they are associated. Marronage can be defined as desertion of the plantation with the aim of settling in the forest or in the moors behind the plantations to live out of the reach of the planters and the institution of slavery (Hoogbergen, 1983, p. 75). Marronage was commonly found from the first establishment of plantations in Surinam and continued throughout the entire period of slavery. The above mentioned communities are the only ones which have remained intact up to the present. Other communities either merged into the main stream (coastal) society after emancipation, or ceased to exist before they became fully independent societies, or several smaller maroon groups merged into a larger unit (Hoogbergen, 1978, 1983, 1985, 1990a). As the process of marronage is important for understanding the close relationship that exists between the maroon creoles and the SPC I elaborate on it further below after briefly introducing the different maroon communities.

The Saramaccan and the Matawai varieties split off from the SPC between roughly 1690 and 1700 when the founders of the Saramaccans and Matawais fled the plantations

on the Surinam river, the Para creek, and their tributaries (Hoogbergen, 1985).[4] The different smaller groups which later became known as the Saramaccans and Matawai first hid in several moors close to the (mostly coastal) plantation area which were difficult to access for the colonial troops routinely send out to hunt down run-away slaves. Since a peace treaty with the Dutch in 1760 the Saramaccans have been settled along the upper-reaches of the Surinam river.[5] The Matawais, who signed the peace treaty in 1767, established themselves along the upper-reaches of the Saramacca river (see Map 2.1).

The Ndyuka varieties split off from the SPC roughly between 1710-1750. This cluster of mutually intelligible dialects is spoken by four politically distinct groups of maroons (Aukan, Aluku-Boni, Paramaccan, Kwinti). Except for the Kwintis who reside on the Coppename river and the Saramacca river, all the other speakers of Ndyuka varieties are presently settled in Eastern Surinam and French Guiana on the banks and islands of the Marweijne river (Paramaccans and Aukans) and its tributaries, the Tapanahoni river (Aukan) and the Lawa river (Aluku-Boni) (see Map 2.1). The

[4]The years given for the flight of the different groups are based on archival records. They need to be taken with caution, however, since they come from reports made by the colonial government. That is, they represent the year in which the colonial government first took notice of a group's existence which most likely does not coincide with the time of their formation for two reasons. First, the formation of these groups took place as a form of resistance to the colonizers and thus was kept hidden from them as much as possible. Second, the colonizers usually only became aware of such groups once they had grown to a certain size and become a threat to the plantation system.

[5]In the 1960s the Dutch colonial government forced a number of Saramacca clans to move closer towards the coastal region since they dammed part of the Saramacca river, creating the Stuewemeer, to produce electricity for the coastal industry and the capital city.

derogatory term Djuka or the more appropriate term Ndyuka is often used to refer to the Aukans and their language in both popular usage and in scholarly works. There are multiple reasons for this but some of the more important ones are: First, they are the largest Ndyuka group and they were the first group that was recognized by the colonial government; second, the colonial government put the Aukan in charge of the other groups and urged them to integrate or eliminate them; third, the different groups are linguistically and culturally highly similar and are therefore often treated as one, under the label of the largest group, by outsiders. In this study the term Ndyuka is used as a general designation or superordinate label for the Aukans, the Aluku-Bonis, the Paramaccans, (in some ways) the Kwintis, and their language. This grouping together of all three groups under the label Ndyuka is *not*, however, meant to imply that the three smaller groups, the Aluku-Bonis, the Paramaccans, and the Kwintis derived historically, culturally, and linguistically from the larger group, the Aukans. This study assumes, based on the available sociohistorical evidence on the process of marronage in Surinam (Hoogbergen, 1978, 1983, 1985, 1989, 1990a), that each group descended directly from the plantation population. The cultural and linguistic similarities between them are assumed to be due to their common plantation background. While it cannot be denied that the different groups mutually influenced each other to some degree, it seems unlikely, based on available sociohistorical evidence, that this influence gave rise to the substantial similarities existing between them.

The Aukans are the largest group among the Ndyukas; they number roughly 25,000 people. Their founders fled the plantations on the Commewijne river, the Cottica river,

and the Tempati creek around roughly 1710 (Hoogbergen, 1989). As with all the other maroon groups, it is difficult to assess the end of the period during which the different groups which later formed and became known as the Aukans fled the plantations, but it probably lasted until around 1760 when the leaders of the Aukans signed a peace treaty with the colonial government. Since the peace treaty the Aukans have been residing on the lower Tapa(na)honi river where all their ancestral villages are located (see Map 2.1). With the increase of the population they set up camps all along the Marowijne river, the Cottica river, and the coastal region around the towns of Albina and St. Laurent du Maroni (see Map 2.1).

The Aluku-Bonis are presently settled on the Lawa river and along the lower part of the Marowijne river in French Guiana and increasingly also in the urban areas of French Guiana. It is estimated that they number roughly 5000 people. The founders of the Aluku-Bonis left the plantation on the Surinam river, the Commewijne river, the Cottica river, the Tempati creek, and the Perica river in 1712 (Hoogbergen, 1985, 1989, p. 184). In the first half of the 18th century the Aluku-Bonis lived in the Cottica region, close to the Cassipera creek. In the course of the two wars with the Dutch (1768-77, 1789-93) they were forced to retreat along the Marowijne river down to the Lawa river where their ancestral villages are located today (Hoogbergen, 1985, 1989, p. 176). (see Map 2.1)

The Paramaccans are settled on the lower reaches of the Marowijne river (see Map 2.1). It is not quite clear when the different groups of maroons that later came to be known as the Paramaccans were established. Wong (1938) argues that they established

themselves in the first half of the 18th century while Leerdam (1956) places their origin in the second half of the 18th century, some time around 1760.[6] Their oral history and that of the Aluku-Bonis, however, suggests that they fled around the same time as the groups which later formed the Aluku-Bonis and share part of their history with them. They probably originate from plantations in the Commewijne region (Hoogbergen, 1978, p. 9). Their first settlement was in the upper Commewijne area but under the pressure of the bush patrols of the planters they trekked down the Tempati river where they settled along a creek which is now called the Paramacca creek. After emancipation in 1863 they settled on the islands and the banks of the Marowijne river in the area around the Paramacca creek (see Map 2.1). Since the civil war in Eastern Surinam in the 1980s Paramaccans have come to settle increasingly in and around St. Laurent du Maroni. Like the Aluku-Bonis, they number roughly 5000 people.

The Kwintis are today settled along the Coppename river and the Saramacca river in Western Surinam. They are the only one of the surviving maroon groups which is not politically independent. They are integrated into the political structure of the Matawais and partially reside in close contact to them (see Map 2.1). According to Hoogbergen (1992) they were first spotted in 1743 on the lower reaches of the Saramacca river. Their founders most likely fled the plantations situated around Paramaribo, in the Para region, and in the Lower-Commewijne area. They then resided for several years on the sandy ridges in the swamps between the Atlantic ocean and the lower Saramacca river. Due to

[6]Both authors were quoted by Hoogbergen (1978, p. 8).

destruction of their villages by colonial troops the Kwintis decided to settle between the Saramacca river and the Coesewijne river in 1775. Sometime after 1790 and 1800 at least some of them moved to the Coppename river but stayed in close contact with the Matawais. Since the middle of the 19th century most of them have been living on the Saramacca river near the Matawai villages (Hoogbergen, 1992).

The above description of the relationship between the different modern creole speech communities and the plantation society suggests the following facts about the relationship between the modern creole varieties and the SPC: First, all modern creole varieties directly descend from the variety(s) spoken on the plantations since the founders of these speech communities all fled from the plantations. That is, they must thus be valid daughter languages of the SPC. Second, while all descendants of the SPC are possible candidates for the reconstruction of the linguistic nature of the SPC, the Ndyuka varieties with the possible exception of Kwinti seem to be the most 'reliable' daughter languages since they did not undergo a fair amount of later contact-induced language change (from Dutch) like Sranan Tongo since the formation of the SPC. Moreover, using the Saramaccan and the Matawai varieties seems problematic since they do not only descend from the SPC but have also been influenced by varieties of Portuguese, a Portuguese-lexified creole or both.

2. 2. 1. 1. The process of marronage

The aim of this section is to discuss the process through which slaves became and remained maroons to show that the languages of the maroon communities are daughter languages of the SPC.

In Surinam, the most common form of resistance to slavery was marronage. Marronage was commonly found since the first establishment of plantations. According to Hoogbergen (1985, p. 390) there were three ways to become a maroon:

1. through voluntary flight to an already established maroon group,
2. through possibly non-voluntary abduction by an already established maroon group,
3. through step by step marronage.

The first option was definitely the safest and most successful means of escaping from slavery. Prior to the peace treaties between the Dutch colonial government and the Aukans and the Saramaccans in 1760 and 1762 and the Matawais in 1767 this represented a common form of escape (Hoogbergen, 1978). After that time, however, this escape route was no longer a viable option for two reasons. First, the pacified maroons were now obliged by the peace treaty to hand over all the new runaways.[7] Second, the new or non-

[7]Not all the runaways were immediately handed over to the colonial government. In a lot of cases newcomers were integrated into the group before the *posthouder* 'colonial representative for the group' became aware of them. Most maroons that were handed over after 1760/2 had often been living with a pacified group for a while which suggests that the maroons used handing over as a means of getting rid of unwanted persons (Hoogbergen 1985, p. 394-395).

pacified maroon groups that continually established themselves between the settlements of the pacified maroons and the plantations were generally very reluctant about letting new slaves join them since they were apprehensive of betrayal and nearly always suspected newcomers of being spies employed by the planters.[8] Once a maroon group had reached a certain degree of stability and organization they preferred to recruit new members from among their friends and family who were still resident on the plantations they originated from themselves (Hoogbergen, 1983, p. 78).

The second option was a safe way of becoming a maroon too since, as in the case of the first option, these persons did not have to fight for their own livelihood but could relatively easily integrate into an already established social structure. This represented the most common way of becoming a maroon for women (Hoogbergen, 1983, p. 80).

Step-by-step marronage was the most common way of escaping slavery though, and it is also this type of marronage which led to the formation of all maroon groups. It involved roughly three steps or stages. During the first step of this process a slave who had decided to leave the plantation for good migrated to the large pieces of *kapuweri*, the secondary forest found around the plantations which generally developed through the overgrowing of old fields, established a shelter, and made a living off the things growing on the old field and the things he was able to steal from the nearby plantations (Hoogbergen,

[8]Newcomers were often killed out of fear of betrayal (Hoogbergen 1983, p. 78). Acceptance into the group also depended on the maroon's ethnic background, i.e. whether they were born in Surinam or in Africa, and in the latter case, it also mattered which ethnic group they belonged to (Hoogbergen 1985, p. 939).

1983, p. 78). The slaves from the nearby plantations also supported the *kapuweriman* by bringing him food and warning him of the bush patrols by the planters (Hoogbergen, 1983, p. 78). In some cases the kapuweriman also frequently returned to the slave quarters at night and only spent the day by himself in the kapuweri. Short of being discovered by bush patrols, this existence in the kapuweri could be maintain for several years.

After a while, however, several kapuweri people joined forces and formed a group (in 'hiding') consisting of eight to nine people, usually exclusively men. This signified the second phase in the process of marronage (Hoogbergen, 1983, p. 79). Since at this stage the maroon groups were still dependent on the plantations for a number of their food items and tools which were not readily available in the bush, they usually lived fairly close to the plantations from which they could relatively easily obtain such items and remained in close contact with their slave populations. Just like the kapuweriman, the hiders made their living by hunting bush animals with ropes, strings and traps and by fishing with traps, and bows and arrows (Hoogbergen, 1983, p. 79). Hiders, however, also generally established fields further away from the plantations using seeds stolen from the plantations. They used a slash-and-burn-method of cultivation and planted *napi*, *taja*, rice, corn and sweet potatoes, bananas and plantains (Hoogbergen, 1983, p. 79). The hiders established little villages with semi-permanent houses near the plantations, but generally also maintained shelters near their planting grounds. According to Hoogbergen

(1983) the groups were hierarchically structured. The group's actions were organized by the leader who delegated the tasks through a hierarchically organized chain of command.

Once the planting grounds supplied sufficient food for the whole group, the hiders permanently established themselves near them. This signified the third stage in the process of marronage (Hoogbergen, 1983, p. 79). During this stage of marronage a fully-fledged community would be established. One of the primary activities consisted of attracting new members, particularly women and children (Hoogbergen, 1983, p. 80). This was done in two ways. If the maroons had left a family behind on the plantation, they would now relocate it to the new village. In the case that they had arrived from Africa not long before they deserted the plantation, they would now try to abduct women from the plantations (Hoogbergen, 1983, p. 80). The ideal places of refuge for the maroon group were the moors which were only accessible from the plantations during the dry season. Such areas were located to the east of the Cottica river, between the Surinam and the Upper-Commewjine river, and to the north of the Lower-Commewjine river and to the west of Paramaribo between the lower part of the Saramacca river and the Atlantic ocean (Hoogbergen, 1983, p. 79, see Map 2.1).

The description of the process of marronage in Surinam suggests not only that the language varieties taken into marronage by the founders of the early communities must have derived from the SPC but also that these varieties most likely did not quickly diverge significantly from the SPC since the maroons continued to stay in close contact with the

slaves on the plantations and also expanded the early communities with slaves coming directly from the plantations.

2. 2. 2. The organization of the maroon groups and their contact with others

This section briefly discusses the organization of the maroon groups and what is known about their contact with other maroon groups, the colonial society, and with the Amerindians.

Once the early maroon communities had developed into fully-fledged communities consisting not only of men but also of women and children, they developed a social organization most likely derived from both the social organization of their native African communities and the social organization that had emerged among the slaves on the plantations. The inhabitants of one maroon village or of part of one village considered themselves as one unit or family, called *lo* from Engl. 'row', and named themselves after their leader or the plantation they originated from (Hoogbergen, 1983, p. 82).[9] The lo is based on matrilineal descent: the first woman in the group is considered to be the founder of the lo and her daughters are the founders of the (sub)lineages called *bee* from Engl. 'belly'. A bee is exogamous which means that the men had to select women from outside of their bee. A bee has claims to land and they have their own religious specialist

[9]For a more thorough discussion of the naming and formation of *los* see Hoogbergen (1985, p. 413-416). He discusses the *los* of the Aluku-Boni and the Broskampers who do not exist any more.

(Hoogbergen, 1985, p. 416), who in some cases is the same as the political head of the bee (Hoogbergen, 1985, p. 410).

The establishment of such permanent communities did not, however, mean that they lived in peace and harmony. Their settlements were frequently subject to destruction by bush patrols sent out by the planters (Hoogbergen, 1983, p. 82). This situation constantly forced the maroons to abandon their villages and fields, and go in search of new and better living places. On these searches different los made contact with each other and frequently ended up living in close proximity to each other. Due to frequent intermarriage between the members of these different los, the formerly loose association of los developed into tightly knit larger kinship systems (Hoogbergen, 1983, p. 82) which consisted of several los and were led by a *gaanman*, the chief (Hoogbergen, 1983, p. 82).[10] Despite this merging of different los into a larger unit, the los and bees remained viable units of the social organization of the larger group since up to today the main political officials in a maroon group, such as the gaanman, *kapten* 'the political head of the lo', and the *basya* 'the village crier', are selected from among the members of particular los or bees (Hoogbergen, 1985, p. 416).

The larger maroon groups continued to use the same slash-and-burn-method of cultivation, and obtained most of their other foods, such as fish, meat, palm cabbage etc.

[10]Some groups also had more than one *gaanman*. The Aluku-Bonis, for example, had two *gaanman* during the second part of the 18th century who split the functions of this institution. Aluku was in charge of the safety of the villages and their inhabitants, and Boni was the war lord who dealt with all the external matters concerning the group.

from the forest. Since their settlements were constantly threatened by the bush patrols, most maroon groups had so-called *kibikondes* 'hidden fields and villages' in several locations, a good distance from their main villages which they used as refuge areas when they were attacked (Hoogbergen, 1985, p. 404). At this stage, they were only dependent on the plantations for metal objects, such as pots, pans, knives and weapons, and clothes (Hoogbergen, 1985, p. 70). The maroons who made peace treaties with the colonial government got these items as part of their regular tribute from the colonial government whereas the non-pacified maroons continued to steal them from the plantations (Hoogbergen, 1985, p. 68-70).

Very little is known about the patterns of language use in the maroon communities. However, it seems quite clear that most of the maroons spoke some variety of the plantation vernacular since they had spent at least one year but generally much longer on a plantation before their flight (Hoogbergen, 1985, p. 408). In addition, archival sources suggest that in some cases African languages continued to be used by the maroons either on a regular basis or for particular purposes. In fact, the head of one of the Aluku-Boni los, Kromantin Kodjo, was said to have spoken only Kromantin (an Akan dialect) since he did not know the plantation vernacular very well (Hoogbergen, 1985, p. 408). The dominant language of a group probably crucially depended on the composition of the group, i.e. whether it consisted primarily of very recent, not-so-recent arrivals from Africa, or of Surinam-born people. It seems highly likely though that the SPC was used as a lingua franca among the run-aways. In addition, the regional African background of the

members played a vital role in determining the patterns of language use. If most members were from the same or closely related groups, the likelihood of wide-spread use of specific African languages was much more likely than in the case of greater ethnic heterogeneity.

Most of the Surinamese maroons never lived in complete isolation. From the very beginning of their marronage they remained in close contact with the slaves on the plantations. They, however, also had some contact with other groups which inhabited the rain forest behind the plantations, such as the Amerindians and the other maroon groups. The nature of the contact between Amerindians and maroons depended on the latter's degree of organization. Individual maroons and small maroon groups that were still in the process of formation were generally perceived as a 'threat' by the Amerindian groups since they would drain their food supplies and take their women (Hoogbergen, 1985, p. 402). Some Amerindian groups therefore purposefully hunted for runaways and handed them over to the colonial government (Hoogbergen, 1985, p. 401). Well established maroon groups, however, offered the possibility for mutual trading relations and aid in protection against the Europeans (Hoogbergen, 1985, p. 402). In a few cases close relationships developed between these groups which led to intermarriage and to some cultural transfer, primarily in the area of food preparation (Hoogbergen, 1985, p. 401). In general, however, the relations between the Amerindians and maroons were always tense and the two groups remained at a distance from each other.

Not much is known about the nature of the contact between the groups of so-called non-pacified maroons, those groups who had not signed a peace treaty with the colonial government after 1760. As mentioned above, depending on their needs and mutual interest, they either united to form larger units or just left each other alone. The nature of the contact between the pacified maroons, those who had signed a peace treaty, and non-pacified maroons varied over time, and were crucially determined by the nature of the relationship between the pacified maroons and the European colonizers. In the case of the Aluku-Bonis and Aukans and the Kwintis and Matawais it is known that they maintained close relationships with each other and also intermarried substantially in the case of the former. The pacified maroons also alerted the others to possible raids and protected them from the Europeans by negotiating with the latter (Hoogbergen, 1978, 1985, 1989, 1992). The relations between the pacified and non-pacified maroons were always relatively tense though due to pressure from the colonial government — generally in the from of threats of withholding parts of the badly needed annual tribute — to inform against the non-pacified maroons. Moreover, the pacified maroons often used their obligation to turn over runaways to the colonizers as a way of getting rid of unwanted people and pressured the non-pacified maroons.

Since the Europeans were the inventors and representatives of the system from which the maroons were eager to free themselves, contact with them were limited to activities relating to their mutual war. Most of the Europeans the maroons encountered during their expeditions against certain plantations were killed, or severely wounded.

Direct contact between the members of the two groups only occurred during peace talks, and if a member of one group was captured by the other (Hoogbergen, 1985, p. 402).

The relative isolation of the maroon groups has continued up to the present. The majority of the maroons still reside in their ancestral villages located in relatively inaccessible locations in the interior of the Surinamese rain forest. They are mostly only accessible by dugout canoe. Although the wider availability and greater frequency of outboard motors since the 1970s has allowed a greater number of people to travel more frequently to the coastal towns — beforehand only the younger men went to the coast in search of seasonal work to earn money for acquiring the items not available in the forest — they often continue to reside among people from their own ethnic group and primarily interact with them. Their general lack of financial means and formal education coupled with the prejudices held against them by the coastal populations still present a major obstacle to their integration into the main stream societies of Surinam and French Guiana.

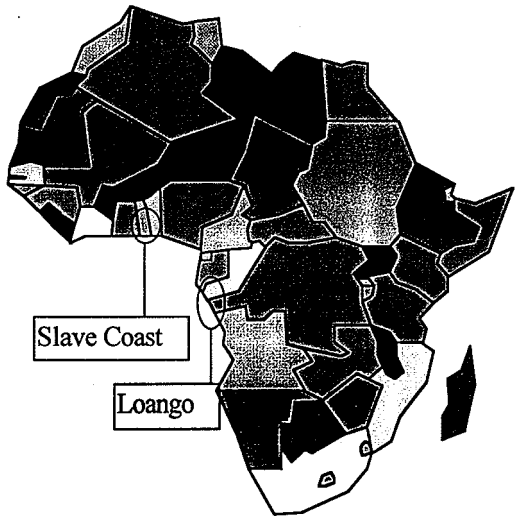
The general description of the life and the contact of the maroons with non-maroons suggests that they were and are in a good position to preserve the varieties of the SPC they had acquired by the time they fled the plantations since until today they have been existing in relative isolation from the coastal mainstream society and the Amerindians. Since languages can also undergo (sometimes drastic) non-contact-induced change, I try to control for such changes by concentrating on linguistic features found in all or most of the Surinamese creoles. The rational for this is that if the feature is present in several or all the creoles of Surinam then it was most likely also part of the SPC.

2. 2. 3. The relationship of the substrate varieties to earlier forms

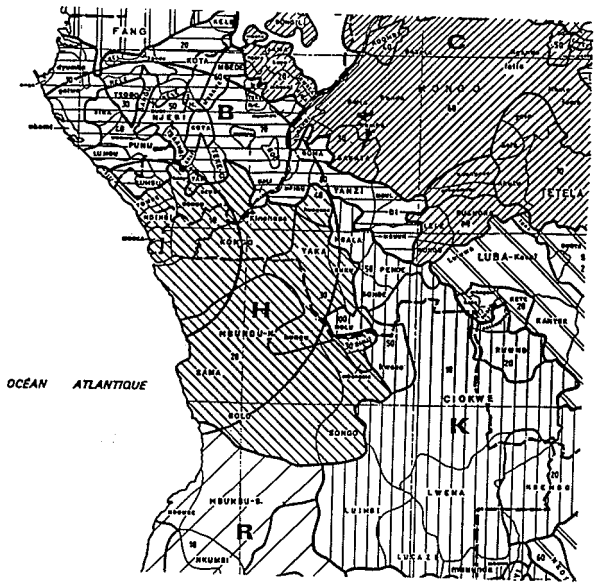
2. 2. 3. 1. The substrate of the SPC

The sociohistorical evidence discussed in more detail in Chapter Three suggests that the Africans brought to Surinam as slaves during the formative period of the SPC (1680-1720) originated from two main regions: the Dutch Slave Coast and the Dutch Loango region (Arends, 1995), see Map 2.2. The Dutch Slave Coast of that period refers to the coast line of the present-day states of Togo and Benin and the area of up to about 200 kilometers north of the coast line (see section 2. 2. 3. 2 for more discussion). The Loango region refers to "the region just north of the Zaire river, i.e., Cabinda, the coastal regions of Congo and Zaire, and southern Gabon." (Arends, 1995, p. 245; see Map 2.3) and the regions which were between 300 and 600 kilometers distance from the coast line (Manning, 1990, p. 62-70). Since before the 17th century the Dutch Slave Coast region had primarily been inhabited by the so-called Ajatado people who are speakers of the Gbe cluster of languages which is part of the Kwa group of languages of the Niger-Congo language family (Bendor-Samuels, 1988). The Dutch Loango region is primarily populated by speakers of the Kikongo cluster of languages which is part of the Kongo group of the Central Bantu branch of the Niger-Congo language family (Grimes, 1988). The present study, however, focuses on the Gbe group of languages for two reasons: First, as discussed in more detail in Chapter Three, the slaves drawn from the Dutch Slave Coast made up the majority of the slaves brought to Surinam during the formative period of the SPC; they made up about 50% of all the slaves brought to the colony of Surinam between

1680 and 1695 and more than 70% of all the slaves between 1695 and 1720. The slaves from the Loango region made up about roughly 50% of the slaves between 1680 and 1695 but their numbers declined in the following period to about 20%. Second, relevant linguistic data on the Kikongo group of languages is presently not readily available.



Map 2.2: The main recruitment areas for Surinam's slave population between 1652-1720



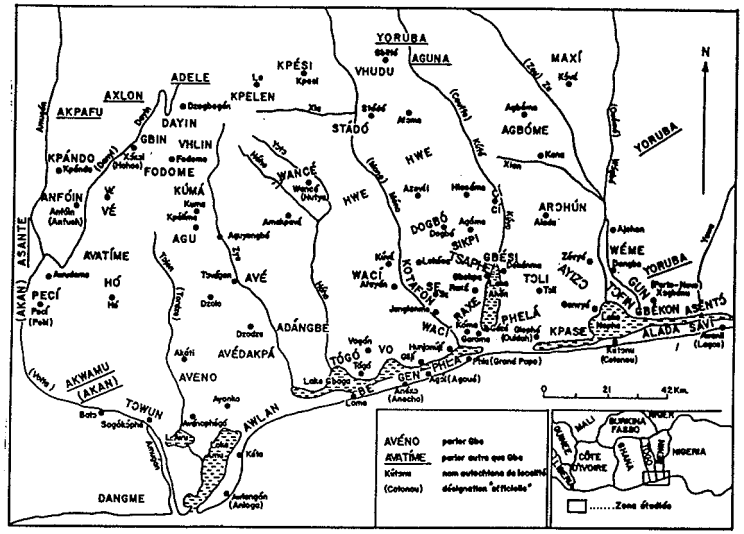
Map 2.3: The main recruitment areas for Kikongo-speaking slaves brought to Surinam (from Arends, 1995, p. 247)

2. 2. 3. 2. The Gbe varieties

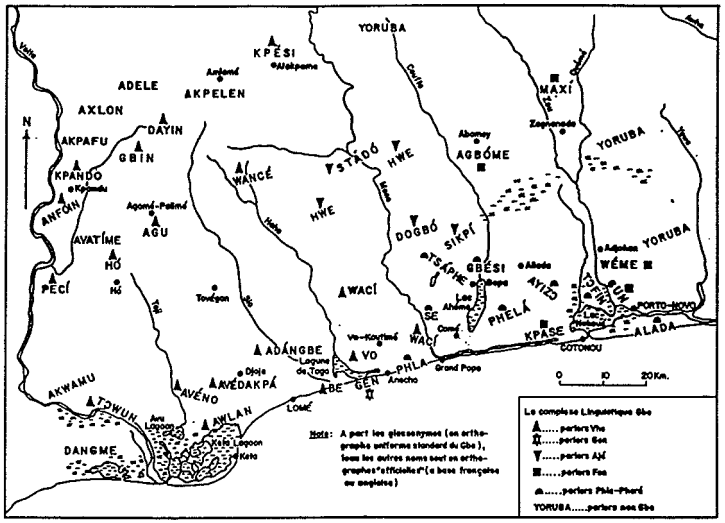
The linguistic continuum of languages which has come to be known by the term *Gbe* (literally: language) extends roughly from the lower reaches of the Amugan river, also called the Volta river, in the west to the Wɔgbo river, also known by the names of Oueme or Weme, to the east (Capo, 1988, p. 10; see Maps 2.3 and 2.4). Speakers of Gbe

varieties are thus distributed over four modern West African states: Ghana, Togo, Benin, Nigeria. The speakers of varieties of the Gbe continuum are surrounded by the following ethnolinguistic groups: the Yoruba to the east and north-east, the Adele and Akpafu to the north and the Akan, Ga and Dangme to the west (Capo, 1988, p. 10; see Map 2.5).

The term Gbe was chosen to designate this continuum following a proposition made by the linguist H. B. C. Capo during a conference on the Aja-Ewe populations in 1977. Since 1977 the term Gbe has been used to designate all languages which use the word *gbe* to mean 'language'. The name Gbe has successfully replaced previous names for this continuum which generally refer to one or the other prominent variety of the continuum such as Ewe, Aja, Ajatado, Ewe-Fon, Foja etc. (Capo, 1988, p. 17-32).



Map 2.4: The Gbe-speaking region in Ghana, Togo, Benin, and Nigeria from which slaves were brought to Surinam (from Capo, 1988, p. xviii)



Map 2. 5: The locations in which the different Gbe varieties are spoken in Ghana, Togo, Benin, and Nigeria (from Capo, 1988, p. xvix)

The roughly 50 varieties identified as members of the Gbe continuum can be roughly subdivided into five main subclusters on the basis of synchronic phonological and morphological evidence: Vhe, Gen, Aja, Fon, Phla-Phera (Capo, 1988, p. 90-102). The main subclusters and several of the varieties that are included in each of them are given in Figure 2.2.

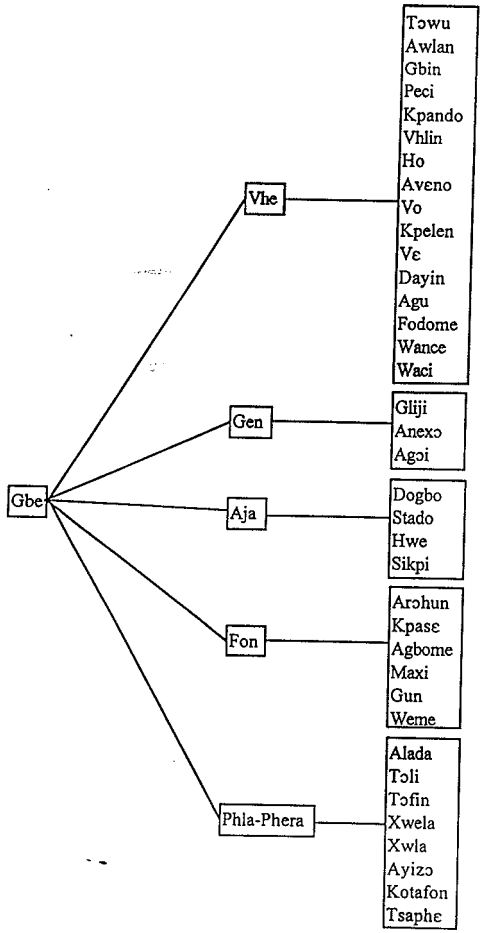


Figure 2.2: The five subclusters of the Gbe group of languages based on synchronic phonological data (based on Capo, 1988, p. 95-102)

Based on the history of the region in which Gbe languages are today spoken Pazzi (1979) suggests that the relative linguistic and cultural homogeneity of this region did not always exist but emerged later during the end of the 15th and the 16th century with the migration of the original Gbe people from their ancestral village of Tado situated east of the Mono river. He argues that a number of the dialects we know today emerged out of the contact between the original Gbe groups migrating from Tado and the ethnic groups they encountered and mixed with on their successive migrations. Pazzi (1979) states:

> Quatre représentent les dialectes anciens issus de la même souche, Tado; ils devaient être déjà assez différenciés au début de l'époque moderne; ce sont les dialectes Evè, Ajá, Ayìzɔ̀ et Xwlà. Deux autres, Fɔ̀n et Gùn, sont nés plus tard, de la rencontre de groupes issus de Tado avec des autochtones d'autres souches: les Gèdè du plateau d'Agbome pour les Fɔ̀n, et les Ké de la région de Dãngbó pour les Gun. Trois dialectes enfin sont nés du métissage entre groupes imigrés d'ailleurs avec les autochtones issus de Tado: ce sont le Gɛ̀n, le Sáhwè et le Xwèɖá. (Pazzi, 1979, p. 17).

Below I present the following information about the Gbe peoples: First, I briefly present what is known about the original and the present settlement areas of the Gbe people. Second, I discuss their interactions during the formative period of the SPC (1680-1720) to determine which varieties of Gbe were the most likely inputs to the SPC and which varieties they were in contact with. Third, I discuss their development since 1720 to determine the nature of the changes they might have undergone.

2. 2. 3. 3. The historical and the modern settlement areas of the Gbe people

This section discusses the settlement history of the Gbe people, paying particular attention to the historically important subgroups.

According to Pazzi (1979, p. 160-163), the oral history of the Gbe people locates their origin in the village of Tado (Stado) on the eastern bank of the Mono river.[11] From Tado, these groups migrated towards the south, west, and east between the 11th and the 14th century and started the process of 'turning' the entire region into the linguistically and culturally relatively homogenous area known today. The first migrants, the Aja, went south along the Mono and founded several villages on the western bank of the Mono river and took other villages such as Dogbo to the east of the Mono. Today the Aja-speaking villages are located on the upper part of both sides of the Mono river in the modern republics of Togo and Benin (see Map 2.4-2.5).

The original Vhe (Eve) left Tado shortly after the Aja. During the first wave of their migration they went to the east of Tado to and across the Kufo river and to the west where they populated the region west of the Mono. Between the 15th and the 16th century another group, the Ayɔ, left Tado migrating westwards to settle in the area of ŋotse (Nutya) on the Yɔtɔ river and founded the village of ŋɔtse. They were also later joined by non-Gbe-speaking groups coming from the west (Pazzi, 1979, p. 169-172). Around 1600 a number of clans however left ŋɔtse due to infighting. Several clans went

[11]The names in the brackets are alternative names usually introduced later by the colonial governments.

westwards crossing the Zyɔ and establishing themselves among the local population there. Other groups such as the future Aŋlɔ went south to a place called Gaphe. From there one group went west to the Adangbe region, another went to the region around lake Amu, and a third group went along the coast and settled around present day Lome (see Maps 2.4 and 2.5). Today the people speaking different varieties of Vhe are settled in the area stretching from the very western edge of the Republic of Benin to the eastern part of Ghana (see Map 2.4-2.5).

The Ayizɔ migrated eastwards from Tado. They crossed the Kofu river and settled in the area between the lower part of the Kufo river and the Wɔgbo river. Between the 15th and 16th century they were joined by another group coming from Tado under the leadership of Agasou. The two groups later came to be known as the Alada, after the city Alada they founded in that region. For quite some time in the 17th and 18th century they dominated the coastal region south of Alada. Today they are still settled in the region around the city of Alada in the modern Republic of Benin (see Map 2.5). Their language has been provisionally classified among the Phla-Phera subgroup.

The Xwla seem to have been the last ones to have migrated from Tado during the first wave of migrations. They were also the only group who achieved their independence from Tado when they left. They migrated south from Tado and settled on the lake Axe (Aheme), on the lower reaches of the Mono river and on the coast around lake Gbaga. Between the 15th and 16th century the Xwla continued to settle and to dominate

politically the entire coastal region stretching roughly from and around lake Gbaga to and around lake Naphe (Pazzi, 1979, p. 172-173). Today the Xwla are settled primarily in and around the city of Grand Popo in the Republic of Benin.

During the 16th century the Xweɖa/Xwela appeared in the coastal region probably coming from the east, the kingdom of Beni, introducing the cult of the python to the area.[12] According to Pazzi (1979, p. 180-181) the Xwela settled around Kome, between the lake Axe and the Mono river. From there, they conquered together with the natives of the Axe region the Saxwe kingdom, established themselves there and then extended their influence to Glexwe (Ouidah) and later along the coast to Xwlagan (Grand Popo). Today the Xwela are settled around lake Axe (Aheme) in the Republic of Benin and their language is classified as belonging to the Phla-Phera subcluster of Gbe languages.

Around roughly 1640 another group migrating from ŋɔtse arrived in the area north of Alada where they conquered the local Gede of Dame and built their new kingdom Dãxome (literally: in the belly of Dan). This group later became known as the Fon or Agbome. They quickly extended their influence in the coastal area in the late 18th century and became its major political power. Fon-speaking people are today located in the areas

[12]Note that to date the Xwela distinguish themselves from the other Gbe groups by the cult of the python (Capo, 1997, personal communication). This is of interest in terms of determining the ethnic origin of the slaves brought to Surinam since this cult is also found in Surinam among the maroons and to my knowledge specifically among the Saramaccans. Further research on the cultures of the Gbe people and the maroons in Surinam might thus reveal important information about the ethnic background of the slaves in Surinam.

around Agbome and Alada in the Republic of Benin, west of the Kufo river up to Dogbo, further north between the Zou and the Oueme rivers (Maxi), around the lake Nophe, and in the area around Glexwe (Ouidah). The Fon varieties also serve as a lingua franca in the coastal region and in the capital of the Republic of Benin.

In 1678 the Gen arrived from Accra. They settled north of the lake Gbaga and in the region of Anexo with the permission of the local Xwla. The Gen then successfully made war with the Xwela of Saxwe taking over Glexwe which marked the beginning of their political domination in this region which lasted throughout most of the 18th century. Today the Gen-speaking people are located around lake Gbaga, particularly in and around the city of Anexo in the republics of Togo and Benin. Gen also serves as a lingua franca on the coastal region of the modern state of Togo.

The above description shows that the people who were later involved in the slaving activities on the Slave Coast either as slaves or as traders did not actually originate from this region but had migrated there over several centuries. This then suggests that the varieties (of Gbe) used on this coast between roughly 1680 and 1720 did most likely not exhibit the relatively great linguistic homogeneity found in this region today. It seems likely that the homogeneity came about slowly through prolonged coexistence of these groups.

2. 2. 3. 4. The peoples on the Dutch Slave Coast between 1680 and 1720

This section briefly presents what is known about the sociopolitical situation on and around the Slave Coast between 1680 and 1720, the formative period of the SPC, to determine the inputs to the formation of the SPC. I briefly look at two aspects: first, the wars that were fought in this region to establish the members of which ethnolinguistic groups were most likely sold into slavery — a great number of the slaves in the transatlantic slave trade had been prisoners of war; second, the alliance and domination patterns between the different ethnolinguistic groups in the region to determine which linguistic influences they must have been subject to.

At the beginning of the 17th century the region was settled as follows by the different Gbe groups: The various Vhe groups were settled in the coastal area ranging from around lake Amu (settled by the Aŋlɔ) to around lake Gbaga (settled by the Be), and in the region north and north-west of that coastal stretch (see Map 2.4). This area is located in the present-day states of Ghana, Togo and Benin. The Ayɔ inhabited the region north of the coast in the region of ŋotse (Nutya) in the present-day Republic of Togo (Pazzi, 1979, p. 191-192). The Xwla were settled along the entire coast ranging from around lake Gbaga to lake Nophe in the present-day Republic of Benin (see Map 2.4). The Xwela inhabited the coastal region between lake Axe and the Mono river, and the region of Saxwe and Glexwe (Ouidah) all located in the present-day Republic of Benin. The Fon or Agbome came to settle the region north of Alada in the present-day Republic

of Benin around 1640 but quickly extended their territory to the north and west by making war with the people surrounding them. The Alada inhabited the area around the village of Alada but since before the beginning of the 17th century the Alada had become an important power in the region and dominated the coastal population, the Xwla and the Xwela (Pazzi, 1979, p. 175-176).

Around 1600 the Dutch started establishing trading posts along this coastal stretch. They freely exchanged guns for merchandise and slaves and thereby furthered the numerous wars between the various ethnolinguistic groups which generated the abundance of slaves desired by the European traders. The first Dutch trading post on the Slave Coast was Xwelagan (Grand Popo) which is situated on the western border of the present-day Republic of Benin. In 1637 they captured Elmina, one of the main trading posts of the Portuguese situated in the area of Accra, the capital of the present-day Republic of Ghana (Pazzi, 1979, p. 191-192). By about 1640, the Dutch had also established a trading post in the region east of Glexwe in a place called Jɛnkɛn which was situated in the eastern part of the present-day Republic of Benin. Jɛnkɛn was at the time an important commercial center since it was close to the embarkment place for the European ships, called little Arada or Alada, and on the pearl trade route to Djugu. At the time, Jɛnkɛn was populated by the Ba, one of the Xwla clans. Due to a fight between the Ba and the Alada, the Dutch relocated part of their trade from Jɛnkɛn to Glexwe at around 1680. (Pazzi, 1979, p. 197-212).

Until roughly 1680 most of the slaves sold to the Dutch were prisoners of war captured by the various groups which were active on the coast such as the Xwla, Xwela, Alada, Aŋlɔ, and Ayɔ during wars with their neighbors. In this period, the number of slaves sold into slavery was relatively small as well.

A particularly difficult period in this region starts around 1680. It is marked by continued wars between the different Gbe groups inhabiting the coastal strip and their raids further inland to generate the necessary slave supply demanded by the European traders, particularly the Dutch. The troubles began as the result of three events: First, the arrival of the Gen in the area of Anexɔ roughly in 1678. Second, the arrival of the Ayɔ army on the coast in the new Alada port of Ekpɛn located east of Glexwe and Jɛnkɛn in the present-day Republic of Benin. Third, the attacks of the army of Akwamu from the west, the present-day state of Ghana (Pazzi, 1979, p. 213).

The arrival of the Gen led to a weakening of the otherwise powerful Xwla since the Gen allied themselves with their opponents, the Aŋlɔ and the Alada. To fight off the influence of the Aŋlɔ the Xwla entered into allegiance with the Xwela of Glexwe. This then led to the following new power constellation on the coast located in the modern Republic of Benin: first, the Gen and the Alada were allied against the Xwla of Xwlagan and Jɛnkɛn, and the Xwela, and second, in the west the Aŋlɔ and Akwamu were now

allied against both the Gen and Alada, and against the Xwla and Xwela.[13] Pazzi (1979), however, points out that the different allegiances were not water tight since the primary goal of all the groups involved was to reorganize the transatlantic slave trade in their favor and wars often erupted over slave catching activities.

During the late 1680s wars also erupted between the Akwamu and the Vhe to the west and in the east the Vhe of the Mono region attacked the Fon of Dãxome. The trade on the coast, particularly in Jɛnkɛn and Glexwe, however, continued to thrive due to the allegiance made between the Xwla and the Xwela. In 1691 the Xwela in allegiance with the Xwla went to war against the Alada who were blocking trade routes to Glexwe. They were however defeated by the Gen who were employed by the Alada to fight them back. In the early 1690s the Xwela together with the Ayɔ successfully went to war against the Alada to reopen the trade routes. The increasing power of the Xwela due to the flourishing of the slave trade led to the successive decline of the power of the Xwla who were by the end of the 1690s strongly dominated by the Xwela of Saxwe.

The available knowledge about the wars on the Slave Coast between 1680 and 1695, the period during which the SPC emerged, suggests that the slaves during this period must have come from the following ethnolinguistic groups: the Xwla, Xwela, Gen, Alada, Fon or Agbome, Akwamu, and from various Vhe groups such as the Aŋlɔ and the Ayɔ. The

[13]Before that time the Alada were allied with the Xwela against the Xwla of Jɛnkɛn and Xwlagan (Pazzi, 1979, p 215).

alliance and domination patterns suggest that during those 15 years the Xwla were much influenced by the Xwela, the Gen by the Alada, and the Aŋlɔ by the Akwamu.

Around 1700 the Xwla, who had fallen under the domination of the Xwela, allied themselves with the Gen to free themselves of the Xwela. This led to a war between the Xwla and Xwela near the town of Agbanakɛn on the northern side of the lake Gbaga in the present-day Republic of Benin. The Xwela were defeated during this war. From that time on, the late 1690s, the Xwla were tightly allied with their neighbors, the Gen and the Anɛ, a Fante group from Accra which had settled close to Xwelaxɔ (Anexɔ) on lake Gbaga in the present-day Republic of Benin. After 1700 the Gen and the Anɛ were together involved in the trade with the Europeans from the port of Xwelaxɔ which was becoming an important trading center at the time.

In 1702 the Akwamu and Aŋlɔ in the west, and the Xwela of Saxwe in the east successfully joined forces against the relatively powerful allegiance consisting of the Xwla, Gen, and Anɛ. The victory did not, however, lead to a significant change in the power equilibrium on the coast but brought the eastern Vhe people under the influence of the Akwamu and the Aŋlɔ.

In the late 1710s the Fon of Agbome/Dāxome began their expansion by going to war first against the Xlangba and pushing them to the south-west, then against the Aja who lived across the Kufo river and finally against the Wemenu in the eastern part of the present-day Republic of Benin. (Pazzi, 1979, p. 214-237). In 1712 the Ayɔ aided the

Wemenu against the Fon or Agbome by attacking Agbome and Ekpɛn who were starting to take trade away from Glexwe. In 1715, due to problems between the Alada and the Xwela at Saxwe, the Gen attacked the southern border of the kingdom of Alada around Toli in the employ of the Xwela. The attack did not, however, have the intended effect of reopening the trade routes blocked by the Alada towards Glexwe and eventually caused the end of the trading activities by the Xwela of Glexwe (Pazzi, 1979, p. 239-246).

The available knowledge about the wars on the Slave Coast between 1695 and 1720, the period during which the SPC stabilized, suggests that the slaves during this period must have come from the following ethnolinguistic groups: the Xwla, Xwela, Gen, Anɛ, Alada, Fon, Akwamu, Wemenu, and from various Vhe groups such as the Aŋlɔ and the Ayɔ. The alliance and domination patterns suggest that throughout those 25 years the Xwla, the Gen, and the Anɛ must have influenced each other linguistically since they were tightly allied with each other. Some of the Vhe peoples residing north of the lake Gbage in the present-day Republic of Benin were influenced by the Aŋlɔ and the Akwamu, and towards the end of this period the Aja and the Wemenu came under the influence of the Fon of Agbome.

The description of the war activities on the Slave Coast between 1680 and 1720 suggests that the slaves probably originated from all the ethnolinguistic groups that were involved in the sociopolitical activities in the coastal region ranging from around lake Gbaga to lake Nophe in the present-day Republic of Benin. The people who were sold

into slavery from these groups were usually prisoners of war. Not very much is known about raids specially undertaken by the coastal peoples to obtain slaves to sell to the Europeans. It seems likely though that these raids targeted smaller groups that lived in relative proximity of the more influential groups. A study of the substrate input to the formation of the SPC thus has to include almost all the Gbe varieties since members of almost all groups were likely to have been sold into slavery.

Based on the domination and alliance patterns the following, rather simplified, patterns of contact emerge for the main groups: the Xwla were influenced first by the Xwela and the Alada, and then by the Gen and the Anɛ. The Gen were most likely first influenced by the Alada and later by the Xwla and the Anɛ. The Xwela were mainly subject to influence from the Alada. Some of the eastern Vhe people came under the influence of the Aŋlɔ by the Akwamu towards the end of this period. Little is known about the patterns of contact of the Fon of Agbome for this period. A substrate study should thus ideally include all these languages. Given the usual time and financial constraints, it was decided to collect data on representative varieties for each subcluster: Anexo (Gen), Fon (Fon), Wance (Vhe), Maxi (Fon), Waci (Vhe), Aja (Aja), and Xwela (Phla-Phera).

2. 2. 3. 5. The development of the Gbe varieties after 1720

This section briefly presents the development of the ethnolinguistic make-up of the Slave Coast after 1720 to establish that the modern varieties are valid descendants of the earlier varieties by showing two things: First, that the various Gbe groups from which members were sold into slavery between 1680 and 1720 are still fully functional ethnolinguistic units today and second, that their languages have not been subject to a significant amount of (contact-induced) change.

In the period after 1720 the Dutch Slave Coast became heavily dominated by the Fon of Dãxome. They took over Alada from the Alada, and captured Jɛnkɛn in 1724, Saxwe in 1726/7, and Glexwe (Ouidah) in the 1740s from the Xwela. Since that time Glexwe and Saxwe have been inhabited by Fons and Maxis and the Xwela of Glexwe and Saxwe established themselves close to Gezen on lake Axe (Aheme), around Gbagri, and on lake Gbaga in the modern Republic of Benin. The Xwela, the Xwla, and the Gen with the help of the Ayɔ continued in vain to fight the domination of the Fon of Dãxome until 1769 when they were forced to make a peace treaty with the Fon and recognize their dominant position on the coast. As a result of this war and later wars with the Aŋlɔ the zone of influence of the Gen and their allies, the Anɛ and the Xwla, was considerably reduced to the area they presently inhabit: the region around lake Gbaga ranging from Xwelaxɔ (Grand Popo) to Anexɔ on the border of the present-day states of Benin and Togo (see Map 2.4). The Alada continued to live in the area of Alada in the modern

Republic of Benin. The Aŋlɔ after several wars came to settle east of Keta in the present-day Republic of Togo and the Ayɔ and the other Vhe groups continued to inhabit the region ranging from the western edge of the Republic of Benin to the eastern part of Ghana. The Fon of Dăxome continued until roughly 1810 to make war with their northern, eastern and western neighbors to generate slaves and to expand their domain of influence. Since the early 1790s the situation on the Slave Coast, however, started quieting down because the slave trade had become less and less profitable and was finally abolished which led to the European traders abandoning their trading centers in Glexwe and Xwelaxɔ. The Fon, however, remained an important power in the region throughout the 19th century.

In the later part of the second half of 19th century the people of the entire region became colonized by three different European imperial powers: the English, the French, and the Germans. During this period the power relationship between the different groups in this region changed slightly but they remained living more or less in the locations in which they were already established at the end of the 19th century (see Map 2.4). The colonial and post-colonial governments have also not managed to date to change the sociolinguistic make-up of the region. The majority of the population still lives in the rural areas in rather homogenous ethnolinguistic units which are relatively little influenced by the official language of their former colonial power and by the official language of the present West African states to which they now belong.

The brief description of the events on the Slave Coast following 1720 suggests that the modern Gbe varieties are valid descendants of their earlier varieties since the Gbe peoples present on the Slave Coast between 1680 and 1720 are still functioning as valid ethnolinguistic units in this territory today and have not been much subjected to linguistic influences other then the ones they were also subject to during 1680 and 1720. The only difference between the period of 1680 to 1720 and the later periods is the much more intensive influence from the Fon of Dăxome who were not much involved in that region between 1680 and 1720.

2. 3. The synchronic data for the comparative linguistic analysis

The aim of this section is first to present the methodologies used for obtaining the data for the linguistic analysis and second to present the people and the settings in which the data were recorded.

In order to carry out a comprehensive description and comparison of specific syntactic phenomena to determine the role of the substrate in the formation of the SPC the study has to rely on synchronic data which (i) closely approximates the SPC and the earlier varieties of the different Gbe varieties and (ii) is sufficiently comprehensive to include the total distribution of the constructions under investigation. With respect to (i) this involves obtaining data from relatively conservative speech varieties within the community, that is what is often referred to as the vernacular varieties in sociolinguistic research. The vernacular has been defined as the speech varieties a speaker adopts in

spontaneous natural interactions. It is generally used among in-group members interacting in a relatively relaxed everyday situation in which they are little affected by society wide or overt prestige norms (Milroy, 1987).[14] With respect to (ii) this involves obtaining a relatively large corpus of independently collected data, such as natural conversations, to get an overview of the total distribution of a construction in the varieties. This 'natural' data, however, should ideally be supplemented with data specifically obtained from native speakers of these varieties through questioning to allow investigating the 'gaps' in the corpus; that is, to obtain constructions accidentally missing from the corpus and so-called negative or ungrammatical examples. The following section thus focuses on how to locate the speakers and the settings in which the vernacular is used and how to subsequently 'capture' or obtain the data for the analysis.

2. 3. 1. On locating and obtaining the data for the comparative linguistic study

Locating the members of a community who speak the vernacular and the settings in which the vernacular is used involves determining the sociolinguistic structure of the community. That is, since the members of a sociolinguistic unit or speech community generally employ a number of different varieties whose use is determined by the social background of the interlocutors, their relationship to each other, the purpose of the interaction, and the nature of the settings, it is necessary to first determine the patterns of

[14]The term 'vernacular' like other concepts is not particularly well defined but should be viewed as "an abstraction, occupying a structural slot which places it in gradual opposition to the standard or publicly legitimized code" (Milroy, 1997, p. 60).

language use among the members of the community in order to be able to determine when, where, and by whom the vernacular is employed. This can be done in three ways: (i) by randomly sampling the population of the community, (ii) by relying on the judgment of an insider of the community, or (iii) by observation of and participation in the community. The random sampling method generally relies on a "previously constructed *random sample* of the population." (Milroy, 1987, p. 19) consisting of any kind of list which enumerates the relevant population, such as electoral registers and telephone directories. The researchers then randomly select people for investigating their language behavior from among the different subgroups established by the random sample of the population. "The principle underlying judgment sampling is that the researcher identifies in advance the *types* of speakers to be studied and then seeks out a quota of speakers who fit the specified categories." (Milroy, 1987, p. 26). Finally, the ethnographic method involves determining the patterns of language use in a community by the researchers attaching themselves to one or several preexisting social networks whose activities they observe and participate in during an extended period of time (Milroy, 1987, p. 35-37).

Once the people who use the vernacular and the settings in which it is used are located, the researchers are faced with the problem of 'capturing' the necessary data for their analysis. The data collection presents a 'problem' since the presence of the researchers and/or their recording device often cause a change in the situation which generally also leads to a shift away from the vernacular variety by the interlocutors. That is, given that the vernacular varieties are generally only used among members of the in-

group and in settings and for activities reserved only for in-group members, speakers tend to shift away from their vernacular varieties to varieties closer to the socially prescribed standard varieties in the presence of outsiders and in non-in-group settings.[15] This problem, also called the observer's paradox, poses a serious problem for the research since the researchers are generally not members of the in-group and a situation in which people are observed or recorded does generally not qualify as an in-group setting or activity. Researchers working on vernacular varieties have thus adopted at least three different procedures to mitigate the 'disturbance' caused by the researcher: (i) setting up group interviews in relatively natural settings, (ii) making use of in-group members, and (iii) participation and observation in the community over an extended period of time by the researcher. Researchers like Labov tried "to break down systematically the social roles of interviewer/interviewee along with the asymmetrical relationship which they implicitly encode." (Milroy, 1987, p. 62) by recording groups of people during natural interactions. In these settings the focus of attention during the recording generally easily shifts away from the relatively strictly organized, interviewer-controlled one-to-one interview style. The fact that the interviewer is outnumbered reduces the likelihood that she will dominate the conversation. In such settings, particularly if the other interlocutors know each other well, the interviewer generally becomes relatively marginal to the conversation while the interviewees interact in a relatively natural fashion with each other (Milroy, 1987, p. 62).

[15]Vernacular varieties tend to be stigmatized by the society at large since they differ from the prescribed standards of the society.

The second procedure to overcome in-group barriers involves delegating the task of data collection to a competent in-group member. The rationale for this technique is that by the virtue of being an in-group member the fieldworker would be able to participate in the activities of the in-group without negatively influencing the setting. That is, the field worker would know how to appropriately interact with the (other) in-group members — for instance, chose an appropriate topic and general setting so that the interlocutors would be able to divert their attention away from the recording device.

The third procedure involves breaking down the in-group barriers by the researchers themselves becoming (honorary) members of the community through extended time spend in the community so that they would be able to develop multiple roles and links with insiders (Milroy, 1987, p. 65). The rationale for this technique is that by assuming multiple roles and relationships with the members of the community the researchers would be able to observe and learn the appropriate behaviors in the different settings and thus over time would decrease the effect of the observer's paradox. This technique allows the researchers to observe, record, and participate in natural types of activities while minimally affecting the situation.

The natural data for this study was collected using the second and third procedure. I delegated the data collection to competent in-group members in those communities in which I only resided for a relatively short period of time and in the communities in which I resided for an extended period of time, I actively participated in the data collection process.

2. 3. 2. Collection of the Ndyuka data

This section outlines the methods used for surveying the patterns of language use in the two Ndyuka communities and for collecting the vernacular data. It provides a brief sketch of the patterns of language use in the community and presents the social characteristics of the speakers, the topics, and the settings from which the data for this study was drawn. Since slightly different approaches were used in the two Ndyuka communities, Paramaccan and Aukan, they are presented separately here.

2. 3. 2. 1. Collection of the Paramaccan data

The patterns of language use in the Paramaccan speech community were established on the basis of both observation of and participation in the community's activities over an extended period of time, and discussions with members of the community. During my field work in the Paramaccan community I spent most of my time joining in the everyday activities of the members in the community such as washing clothes and dishes in the river, preparing the main food staples, planting and harvesting, listening to and participating in all kinds of discussions of both private and public matters, and attending different kinds of religious and cultural ceremonies. I was usually invited to participate in these activities by members of the different social networks in the community. In the beginning the people who invited me along would generally explain the functions and procedures of the activities and as I was getting more fluent in Paramaccan and the prescribed behaviors, they would generally make me aware of the 'appropriate'

behavioral norms to follow. In addition to observing and participating in the everyday activities I also had numerous discussions with different members of the community who, being partially aware of my research interests, would not only teach me Paramaccan but also generously shared with me their views about the community in general, the different groups of people within the community, and the happenings of the day.

After several months of observation of and participation in the Paramaccan's everyday activities in the community it became clear that its members fall roughly into two groups: those that are monolingual in Paramaccan and those that have some degree of control over another language. The first group of people generally consists of women and older men (45+) who have either enjoyed very little formal education or none at all. They rarely go to the coastal towns and if they do, they interact primarily with members from their own community. They had generally not lived outside of the Paramaccan community for extended periods of time and are primarily engaged in subsistence farming.

The second group consists of people who have varying degrees of fluency in one or more languages. A very small subset, the professionals such as teachers, are quite fluent in a variety of Ndyuka, though not necessarily Paramaccan, a variety of Dutch, the official language of Surinam, and a variety of the town creole, Sranan Tongo. They are men and women of different ages who had enjoyed a professional education and who not only go to town on a regular basis but had generally also spent some time living in town prior to their appointment in the interior of Surinam. They interact with both insiders and outsiders of the community on a regular basis. In interactions with most outsiders,

including government officials, they tend to use Dutch but for most of their everyday interactions they rely on a variety of Ndyuka. Among themselves they tend to code-switch between Dutch and Ndyuka.

The majority of the people in the bi- or multilingual group are generally only partially to marginally fluent in other variety(s), generally Sranan Tongo. Most of the men and women from this group are below 40, had either enjoyed some formal education and/or leave the community on a regular basis and also interact with outsiders fairly regularly. They generally only marginally engage in subsistence farming; they prefer to engage in non-traditional money-earning activities such as trading, gold mining, and transporting which involve relatively frequent contact with members of other (sociopolitical) communities in Surinam. They tend to use Paramaccan for most of their everyday activities in the community but would switch to their outgroup code, usually Sranan Tongo, with outgroup members and when among themselves.

Since this study requires a corpus of relatively conservative vernacular speech, only speech recorded from monolingual Paramaccan speakers and weakly bilingual speakers was selected for this study.[16] Table 2.1 gives the social characteristics of the Paramaccan speakers who participated in the recordings on which the present study is based.

[16]This is not meant to imply that only contact leads to language change. It seems, however, that in multilingual communities like Surinam/French Guiana language contact is the primary source of language change.

Number	Person	Gender	Age	Residence	Mobility	Occupation	Languages	Education	Tape
1	P*	F	40	Langa T.	somewhat[1]	subsist. farmer	some Sranan & Dutch	primary	PM 2
2	A. D.*	F	65	Langa T.	none	subsist. farmer	none[4]	none	PM 2
3	P. P.*	F	18	Langa T.	somewhat	subsist. farmer	some Dutch	primary	PM 2
4	J. L.*	M	76	Langa T.	somewhat[1]	subsist. farmer, assistant nurse	some Dutch	two years	PM 7
5	O. B.	M	65	Baada T.	somewhat[1]	subsist. farmer, janitor	some Sranan Tongo	two years	PM 7
6	K. A.*	M	70	Langa T. & St. Laurent	some[2]	subsist. farmer, peddler	none[4]	none	PM 7
7	K. O.	M	50	Langa T. & St. Laurent	some[2]	boat man, farmer	none[4]	none	PM 7
8	A. U.*	F	65	Sikin T.	none	subsist. farmer	none[4]	none	PM 11
9	B. S.	M	29	Baada T.	some[2]	gold miner	some Sranan Tongo & Dutch	secondary	PM 11, 12
10	M. S.*	F	60	Baada T. & Mana	somewhat[1]	subsist. farmer	none[4]	none	PM 12
11	L. S.*	F	33	Baada T. & Mana	somewhat[1]	subsist. farmer	none[4]	none	PM 12

Table 2.1 (continued)

Table 2.1: The social characteristics of the Paramaccans who participated in the recordings

Table 2.1 (continued)

12	J. S.	M	40	Baada T. & Mana	some[2]	subsist. farmer	none[4]	none	PM 12
13	N. S.*	F	35	Baada T. & Mana	some[2]	subsist. farmer	some Dutch	primary	PM 12
14	D. S.*	F	50	Baada T.	none	subsist. farmer	none[4]	none	PM 17
15	A. S.*	F.	35	Baada T.	none	subsist. farmer	none[4]	none	PM 17
16	S. A.*	F	35	Baada T.	somewhat[3]	subsist. farmer	none[4]	none	PM 17
17	S. S.*	F	45	Baada T.	somewhat[3]	subsist. farmer	none[4]	none	PM 18
18	S. M.*	F	40	Baada T.	none	subsist. farmer	none[4]	none	PM 18
19	S. D.*	F	55	Boni Doo	somewhat[1]	subsist. farmer	none[4]	none	PM 18
20	C	F	10	Baada T. & Apatou	none	student	some French	3 years	PM 18

*These speakers were the primary interactors in the recorded conversation.
[1]They were somewhat mobile in the past, but primarily within the Ndyuka territory.
[2]They were mobile in the past inside and outside of the Ndyuka territory but were always integrated into Ndyuka networks.
[3]They are somewhat mobile inside and out side the Ndyuka territory but are always integrated into Ndyuka networks.
[4]'none' means that they generally have a basic comprehension of Sranan Tongo but do not actively speak it.

The recordings were carried out either with only the researcher (PM 17, PM 18, PM 7) or with a friend of the researcher (PM 12), or with both (PM 11, PM 2) present. The researcher either did not participate in the recordings at all (PM 12), or only marginally interacted with the participants in the recordings (PM 2, PM 11, PM 17, PM 18). During the recording of tape PM 7 the researcher is the focus of attention during part of the recording. The recordings were carried out during typical everyday activities of the participants. Tape PM 2 was recorded while the participants were making bread for sale. Tape PM 7 was recorded during an informal discussion of community matters between the political leaders of the community. Tape PM 11 was recorded during a visit of an elderly family member who was discussing personal and family problems. PM 12 was recorded while some people were having breakfast and others were preparing food for the rest of the day. Tape PM 17 was recorded during the preparation of *kasaba beele* 'cassava bread'. Finally, PM 18 was recorded during the regular informal chatting at dusk.

Some of the data in this study also come from formal elicitations. All the elicitation sessions were carried out in Paramaccan in semi-formal settings. That is, they were formal in the sense that they were one-to-one interactions between the researcher and a native Paramaccan speaker in which the researcher asked fairly direct questions about the language. They were, however, informal in the sense that the researcher was well acquainted with the informants, partially elicited the data informally (in the course of

other activities), and generally cast them as sessions in which the researcher was receiving language coaching from the informant. The elicitations were carried out in Paramaccan but in the beginning we made use of some Dutch.

The two informants, a man and a woman, were both in their early 30s and had received professional training (the woman) and secondary school education (the man). Both are relatively mobile and both spent time living in Paramaribo and the man had also lived in St. Laurent du Maroni in French Guiana for about two years. Despite their mobility they are well rooted in their respective local networks. The woman speaks Dutch relatively fluently and some Sranan Tongo besides Paramaccan while the man speaks Sranan Tongo relatively fluently and passable Dutch. The woman uses Dutch to outsiders, such as government officials, and sometimes in conversations with other professionals. The language for most of her everyday interactions is however Paramaccan. The man uses varieties of Sranan Tongo in interactions with members from other communities in Surinam and French Guiana and with his work-related acquaintances; he is employed in the area of gold mining and transport. He uses Paramaccan for most of his interactions with his extended family and other members of the Paramaccan community. Both informants were judged to be reliable Paramaccan speakers by a variety of members in the Paramaccan community. The decision to chose 'non-traditional' informants for the elicitations was due to the fact that the more traditional members of the community tended to be unfamiliar with this kind of direct questioning method and thus tended to be uneasy or unwilling to do this kind of work.

2. 3. 2. 2. Collection of the Aukan Data

In the Aukan community the patterns of language use were primarily established on the basis of the judgment of a member of the community and on the basis of some observation of one social network by the researcher and the field worker during a short period of time. I and the field worker, who is a native of the Aukan community but now resides in Paramaribo, went to his native Aukan community for a period of two weeks. We established ourselves in the part of the village which is primarily inhabited by his extended family. Most of the day we went around the village visiting his relatives and friends, interacting and observing them while they were engaging in their regular every day activities such as food preparation, washing, repairing etc..

After over a week of observation it became apparent that the patterns of language use were very similar to those found in the Paramaccan speech community. We thus set out to record speech from the same groups of people as in the Paramaccan community, that is, monolingual and weakly bilingual members of the Aukan community. Table 2.2 summarizes the social characteristics of the Aukan speakers who participated in the recordings on which the present study is based.

Number	Person	Gender	Age	Residence	Mobility	Occupation	Languages	Education	Tape
1	G. U.	F	70	Dii T.	none	subsist. farmer	none[2]	none	OK 2
2	F. V.	M	40	Paramaribo	somewhat	administrator	Sranan, Dutch	professional education	OK 2, 3, 4
3	A. M.	F	40	Dii T.	some[1]	subsist. farmer	none[2]	none	OK 3
4	K.	M	65	Dii T.	somewhat[1]	subsist. farmer; manual worker	none[2]	none	OK 4

[1]They were mobile in the past inside and outside of the Ndyuka territory but were always integrated into Ndyuka networks.
[2]'none' means that they generally have a basic comprehension of Sranan Tongo but do not actively speak it.

Table 2.2: The social characteristics of the Aukaners who participated in the recordings

All recordings were carried out with both the researcher and the field worker present. All the recordings were made during conversations between the field worker and one of the members of his extended family. The researcher's participation in the recordings was at best marginal. All the conversations centered around family matters and were recorded during the field worker's regular visits to the homes of his family members in the early morning and at dusk.

Some of the Aukan data in this study also come from formal elicitations carried out in Ndyuka in semi-formal settings in Paramaribo. The informant for the formal elicitations was in his early 30s and had received secondary school education and was now employed as a bible translator by the local SIL branch. He had spend most of his childhood in an Aukan community on the Tapanahoni river but has been living in Paramaribo since he was about 15 years old. His primary social network is made up mainly of members of the Aukan community (who live in Paramaribo) but he has also developed multiple relationships with non-Aukaners in both his work and his social life. He uses Ndyuka for a number of his work-related and most of his social interactions. In interactions with most non-Aukaners he uses either Dutch or Sranan Tongo, depending on the context. He was judged to be a reliable Aukan speaker by several members of the Aukan community.

2. 3. 3. Collection of the Gbe data

This section presents the methods for determining the patterns of language use in the four Gbe communities and for collecting the vernacular data. It provides a brief sketch

of the patterns of language use in the community and presents the social characteristics of the speakers, the topics, and the settings from which the data for this study was drawn.

The above description of the linguistic situation on the Slave Coast between roughly 1680 and 1720 suggests that most of the modern varieties of Gbe still spoken in that area today should be included in the present study since speakers of all these varieties were most likely transported to Surinam as slaves during the transatlantic slave trade. Given the usual time and financial constraints, it was decided to collect data on representative varieties of each subcluster instead.

The Gbe data base consists of two types of data: data from formal elicitations and data from natural recordings. Elicitation sessions were carried out with speakers of Anexo (Gen), Fon (Fon), Wance (Vhe), Maxi (Fon), Waci (Vhe), Aja (Aja), and Xwela (Phla-Phera). The speakers of the Anexo, Fon, and Wance varieties were selected by the researcher and the elicitation sessions were carried out in the home of the researcher in the USA. The informants for the Maxi, Waci, Aja, and Xwela varieties were selected by H. B. C. Capo and the elicitation sessions were carried out at the Labo Gbe in the village of Garome in the Republic of Benin.[17] The elicitations were conducted in English and French with the informants living in the USA and in French with the informants living in Benin. All the Gbe informants were university students and are fluent in at least one European language, usually French. The USA based informants were fairly mobile, had been raised

[17] The Labo Gbe is an institute dedicated to the research of the Gbe group of languages.

in the cities of Benin and Togo, and had already been living abroad between 3-6 years by the time they were employed as field informants. In the USA they used both French and a variety of Gbe with their friends and family, and English with people who spoke neither French nor a variety of Gbe. They all speak more than one variety of Gbe, that is, they speak their native Gbe variety and one or two of the lingua francas of Benin and Togo.

The Benin-based informants had spent their childhood and their youth living in the country-side in their respective native communities but had already been living primarily in Cotonou, the capital of Benin, for several years by the time they engaged in the elicitation work. They all retain fairly strong ties to their native communities and are even in Cotonou integrated into a network of people from their native community. They all, however, also maintain both social and professional contact with speakers of other varieties of Gbe. In their private everyday interactions in Cotonou and in their native communities they generally use their variety of Gbe and in official settings they usually use French. All of them frequently code-switch between their variety of Gbe and French in interactions with their peers. The Benin-based informants were judged to be reliable speakers of their variety of Gbe. Such external judgment was not available for the USA-based informants.

Natural recordings were carried out with speakers of Aja, Waci, Maxi, and Xwela. The speakers that participated in the natural recordings were selected on the basis of a judgment sample by the native field workers in conjunction with the researcher. That is, based on the researcher's observation of and partial participation in the activities of the

Waci community of Garome during some period of time, and discussions between her and the field workers, the Benin-based informants described above, it was determined that the members of the different Gbe communities fall into roughly two groups: monolinguals and bilinguals. The monolingual members of the different Gbe communities are generally men and women who had either enjoyed very little for no formal education at all. They are usually subsistence farmers, had lived all their lives in their native communities, and interact primarily with members of their native community. Although they use their native variety of Gbe for all their interactions they usually also have some passive knowledge of the varieties of Gbe spoken in the neighboring communities.

The group of bi- or multilinguals in these communities consists of at least two subgroups: those who are fairly fluent in French besides their mother tongue and those who actively speak varieties of Gbe other than their mother tongue but are generally not as fluent in French. The first group consists of people who have professional training such as teachers, priests, and medical personnel. They usually go to the capital and the regional towns on a regular basis and have spent some time living in these urban centers as well. They generally use their native variety of Gbe for most of their everyday interactions and code-switch to French in interactions with people who do not speak a variety of Gbe and in official situations. Among themselves, most professionals frequently code-switch between French and their variety of Gbe. The second group of bi- or multilinguals is usually only partially or not at all fluent in French but has a good command of other varieties of Gbe. Most of the men and women in this group have either

received some formal education and/or leave the community on a regular basis, as well as maintain regular contact with members outside of their native community. They usually engage in non-traditional money-earning activities such as trading and only marginally engage in subsistence farming. They use their native variety of Gbe for interactions with members from their native community and other varieties of Gbe (usually one of the lingua franca varieties) in interactions with outsiders.

Given the focus of this study, most of the people who participated in the recordings were either monolingual in one variety of Gbe or weakly bilingual in French or another variety of Gbe. They were selected by the field workers from among their own social networks and recorded in their native communities. Tables 2.3-2.6 present the social characteristics of the speakers of Maxi, Xwela, Waci, and Aja who participated in the recordings on which the present study is based.

Number	Person	Gender	Age	Residence	Mobility	Occupation	Languages	Education	Tape
1	A*	M	37	Ouesse	none	subsist. farmer	none[3]	none	M 1
2	B*	M	34	Ouesse	none	subsist. farmer	none[3]	none	M 1
3	C*	M	33	Ouesse	none	subsist. farmer	none[3]	none	M 1
4	D	M	29	Ouesse	some[1]	subsist. farmer	none[3]	none	M 1
5	E	M	26	Cotonou	some[1]	student	French	17 years	M 1
6	A	F	62	Ouesse	none	subsist. farmer[2],	none[3]	none	M 2
7	B	F	40	Ouesse	none	baker	none[3]	none	M 2
8	C*	F	28	Ouesse	none	subsist. farmer[2], peddler, baker	none[3]	none	M 2
9	D*	F	56	Ouesse	some[1]	subsist. farmer[2],	Gun	none	M 2
10	E	F	68	Ouesse	some[1]	subsist. farmer[2],	none[3]	none	M 2
11	F	F	?	Ouesse	none	assist. nurse	French	7 years	M 2
12	G	F	42	Ouesse	some[1]	subsist. farmer[2]	Gun, French	6 years	M 2
13	H	F	17	Ouesse	some[1]	subsist. farmer[2]	none[3]	none	M 2
14	I	F	16	Ouesse	none	subsist. farmer[2]	none[3]	none	M 2

*These speakers were the primary interactors in the recorded conversation.

[1]They lived for some period of time outside the Maxi speaking area but among Maxis.

[2]The fieldworker described their profession as 'homemaker'. In the specific setting this means that they are raising domestic animals, farm etc. to feed the family in addition to cooking and cleaning.

[3]'none' means that they are able to comprehend most of the neigboring Gbe dialects but do not actively speak them.

Table 2.3: The social characteristics of the Maxis who participated in the recordings

Number	Person	Gender	Age	Residence	Mobility	Occupation	Languages	Education	Tape
1	A	M	16	Agbanto	some[1]	student	French	10 years	X 1
2	B*	M	25	Agbanto	some[1]	fisher	none[2]	1 year	X 1
3	C*	M	16	Agbanto	none	student	French	9 years	X 1
4	D	F	27	Agbanto	some[1]	peddler	none[2]	2 years	X 1
5	E*	M	16	Come	none	student	French	11 years	X 1
6	F	M	26	Cotonou	some[1]	student	Adja, French	17 years	X 1
7	G	M	19	Agbanto	some[1]	student	French	10 years	X 1
8	A*	M	60	Ghezin	none	peddler, fisher	none[2]	none	X 2
9	B*	F	36	?	?	?	none [2]	?	X 2
10	C*	M	22	Guezin	some[1]	student	some French	6 years	X 2
11	D	M	12	Guezin	none	student	some French	5 years	X 2

*These speakers were the primary interactors in the recorded conversation.

[1]They lived for some period of time outside the Xwela speaking area but among Xwelas.

[2]'none' means that they are able to comprehend most of the neigboring Gbe dialects but do not actively speak them.

Table 2.4: The social characteristics of the Xwelas who participated in the recordings

Number	Person	Gender	Age	Residence	Mobility	Occupation	Languages	Education	Tape
1	A*	F	55	Garome	none	subsist. farmer[2]	none[3]	none	W 1
2	B(*)	F	20	Garome	none	subsist. farmer[2]	some French	9 years	W 1
3	C*	M	22	Garome	none	appentice	some French	4 years	W 1
4	D*	F	75	Garome	none	subsist. farmer[2]	none[3]	none	W 1
5	E(*)	F	56	Garome	none	subsist. farmer[2]	none[3]	none	W 1
6	F	M	13	Cotonou	some	student	some French	4 years	W 1
7	G	F	29	Cotonou	some[1]	peddler	some French	4 years	W 1
8	H	F	51	Garome	none	subsist. farmer[2]	none[3]	none	W 1
9	I. A	M	26	Garome, Cotonou	some[1]	student	French	15 years	W 1, 2
10	J	M	49	Garome	some[1]	cathecism teacher	French	9 years	W 1
11	B*	M	32	Garome	some[1]	mason	some French	7 years	W 2
12	C	F	40	Garome	some[1]	subsist. farmer[2]	none[3]	none	W 2
13	D	M	21	Garome	none	subsist. farmer	none[3]	5 years	W 2
14	E*	M	36	Garome	some[1]	mason	Pidgin English	none	W 2
15	F	M	29	Garome	some[1]	mason	some French	6 years	W 2

*These speakers were the primary interactors in the recorded conversation.

[1]They lived for some period of time outside the Waci speaking area but among Wacis.

[2]The fieldworker described their profession as 'homemaker'. In the specific setting this means that they are raising domestic animals, farm etc. to feed the family in addition to cooking and cleaning.

[3]'none' means that they are able to comprehend most of the neigboring Gbe dialects but do not actively speak them.

Table 2.5: The social characteristics of the Wacis who participated in the recordings

Number	Person	Gender	Age	Residence	Mobility	Occupation	Languages	Education	Tape
1	D. M.*	M	85	Djakotome	none	subsist. farmer	none[2]	none	A 1
2	D. C.*	M	78	Djakotome	none	subsist. farmer	none[2]	none	A 2
3	T. S.	M	35	Cotonou	some[1]	student	French	17 years	A 2, 3

*They were the primary speakers in the recordings.

[1]He lives outside of the Adja territory but is integrated in a tight Adja network.

[2]'none' means that they are able to comprehend most of the neigboring Gbe dialects but do not actively speak them.

Table 2.6: The social characteristics of the Ajas who participated in the recordings

In addition to the recordings whose participants are given in Table 2.3 - 2.6, the study also included some data from two other recordings. These recordings were added to the data base since the other recordings did not yield sufficient tokens for the study of one grammatical subsystem, namely property items in Chapter Five. The social characteristics of the speakers who participated in the additional recordings are given in Tables 2.7-2.8

Number	Person	Gender	Age	Residence	Mobility	Occupation	Languages	Education	Tape
1	A	M	31	Ouesse	some[1]	?	some French	none	M 3
2	B*	M	55	Ouesse	some[1]	subsist. farmer, hunter	some French	3 years	M 3
3	C	M	65	Ouesse	some[1]	subsist. farmer	none[2]	none	M 3
4	D*	M	45	Ouesse	some[1]	subsist. farmer, carpenter, hunter	none[2]	none	M 3
5	E*	M	46	Ouesse	some[1]	subsist. farmer, hunter	some French	3 years	M 3
6	F	M	58	Ouesse	some[1]	subsist. farmer, hunter	none[2]	none	M 3
7	G	M	62	Ouesse	none	subsist. farmer, hunter	none[2]	none	M 3

*These speakers were the primary interactors in the recorded conversation.
[1]They lived for some period of time outside the Maxi speaking area but among Maxis.
[2]'none' means that they are able to comprehend most of the neigboring Gbe dialects but do not actively speak them.

Table 2.7: The social characteristics of the Maxis who participated in the additional recordings

Number	Person	Gender	Age	Residence	Mobility	Occupation	Languages	Education	Tape
1	A	M	49	Garome	very	professor	French, English	PhD	W 3
2	B*	F	55	Garome	none	cooking oil maker	none[3]	none	W 3
3	C*	F	51	Garome	none	subsist. farmer[2]	none[3]	none	W 3
4	D	F	49	Garome	none	subsist. farmer[2]	none[3]	none	W 3
5	E	M	26	Garome, Cotonou	some[1]	student	French	15 years	W 3
6	F	F	52	Garome	some[1]	cooking oil maker, subsist. farmer[2]	none[3]	none	W 3
7	G	F	33	Garome	some[1]	cooking oil maker	none[3]	none	W 3
8	H	F	37	Garome	some[1]	subsist. farmer[2]	none[3]	none	W 3
9	I	F	53	Garome	none	subsist. farmer[2]	none[3]	none	W 3
10	J	F	54	Garome	none	subsist. farmer[2]	none[3]	none	W 3
11	K	F	56	Garome	some[1]	subsist. farmer[2], peddler	none[3]	none	W 3

*These speakers were the primary interactors in the recorded conversation.

[1]They lived for some period of time outside the Waci speaking area but among Wacis.

[2]The fieldworker described their profession as 'homemaker'. In the specific setting this means that they are raising domestic animals, farm etc. to feed the family in addition to cooking and cleaning.

[3]'none' means that they are able to comprehend most of the neigboring Gbe dialects but do not actively speak them.

Table 2.8: The social characteristics of the Wacis who participated in the additional recordings

The recordings were all carried out with the field worker present and interacting in the setting. The Maxi recordings were carried out in Ouesse, the participants' and the field worker's native community, during informal gatherings of the participants. Tape M 1 was recorded during a gathering of young men who were discussing the social and financial problems of the community and its leaders. M 2 was recorded during a gathering of a number of women who were discussing their financial and family problems. M 3 was recorded during an informal gathering of a number of older men discussing various topics such as happenings of the past and the events in the community.

The Xwela tapes were recorded in Agbanto, the native community of the field worker and the participants. Tape X 1 was recorded during a discussion about the events that had taken place during a recent traditional ceremony. Tape X 2 contains a discussion about the ecological problems of the Axe region.

The Waci recordings were made in the village of Garome, the native community of the field worker and the participants. Tape W 1 was recorded during a discussion of sensitive local and family matters. Tape W 2 was recorded during a discussion about the events surrounding a recent visit to the areas by three French men who were planning to start a *jumelage* between the community and a community in France. Tape W 3 was recorded during a semi-formal political meeting of the women of Garome. They were discussing work-related problems in the community.

The Aja tapes were recorded in the village of Jakotome, the native community of the field worker and the participants. Tape A 1 was recorded during a discussion about

the history of Jakotome between the field worker and an older member of the community. Tape A 2 was recorded during a discussion about the sociocultural changes in the Aja community between the field worker and an older member of the community.

2. 4. The linguistic areas under investigation

This section presents the linguistic areas under investigation and outlines the syntactic and semantic aspects that were investigated.

Above it was determined that a study of substrate influence should focus on a central and representative subsystem of grammar or several parts thereof in order to have a solid basis on which to make judgments on the role, nature and mechanisms of substrate influence in the formation of the creole. The linguistic analysis of this study therefore focuses on two subsystems of the predicate system, serial verb constructions (SVCs) and copular and ascriptive constructions, which are central and representative subsystems of the grammatical system of the SPC. The two subsystems have not only received much attention in the literature on creole grammar but they also have a high frequency in the recorded data which is crucial for their in-depth investigation.

Since the description of the two subsystems of grammar in the two languages is undertaken with the purpose of comparing them to determine the degree of similarity that exists between them, the descriptions have to be as exhaustive as possible for both languages. Following I briefly outline the constructions that were studied. The questions

that guided the investigation are based on issues addressed by previous studies, and on issues that need to be addressed to make the constructions amenable for description within modern syntactic frameworks.

2. 4. 1. Issues investigated in relation to SVCs

A number of concepts such as directionality, comparison etc. generally expressed by prepositional constructions and derivational morphology in Western European languages are realized by 'serial verbs' in so-called serial verb constructions (SVCs), in most creole languages and their substrates. In example (1) directionality is expressed by the serial verb *kon*.

(1)	a	uman	waka	kon	a	osu.	(Ndyuka)
	DET	woman	walk (V_1)	come (V_2)	LOC	house	

'The woman came walking to the house.'

In such constructions one verbal slot, either V_1 or V_2, allows only for one verb or a small subset of verbs while the other allows for a wide variety of verbs (Sebba, 1987). The verbs in the 'restricted' verbal slot generally perform grammatical functions such as expressing the direction of the movement of the subject in relation to the point of reference of the speaker as in (1), marking thematic roles, etc.

I assume that a comparison of serial verb constructions in Ndyuka and Gbe must be based on the following kinds of information: first, the range of SVCs found in the two languages, second, the semantic properties of the different constructions, and third, the

syntactic properties of the different constructions. The first kind of information requires cataloging all the different kinds of SVCs that are found in the data sets. The second type of information requires establishing the semantic contribution of each putative serial VP to the main proposition and the semantic relationship that pertains between V_1 and V_2. This involves first, establishing the range of meanings or functions each serial VPs may perform by cataloging the different kinds of (verbal) heads it may occur with; second, determining the general semantic relationship between V_1 and the serial VP by generalizing over the actual semantic distribution of each serial VP. The third type of information requires determining the categorial status of the alleged serial VP and the type of constituency structure which characterizes SVCs as a whole. This involves determining first, whether the alleged serial verb actually functions like a verb using various verbhood tests, and second, whether the alleged serial VP stands in a complementation or adjunction relationship to the main verb.

2. 4. 2. Issues investigated in relation to copular and ascriptive constructions

The constructions given in (2) represent the types of constructions which have traditionally been subsumed under the label of the copula domain since they involve the use of a copula element in Western European languages:

(2)	NP+(Cop)+NP	(nominal)	The leader is Julia./She is a professor.
	NP+(Cop)+ADJ	(adjectival)	She is clever.
	NP+(Cop)+LOC	(locative)	We are on the roof.
	NP+(Cop)+(LOC)	(existential)	God exists. (Lyons 1977, p. 469)

Descriptions of copula systems in creoles and their substrates show, however, that the constructions given in (2) do not all involve a copula element and/or use different copula morphemes in the different environments. In creole languages, predicative adjectives generally do not require to be preceded by a copula morpheme while nominal and locative/existential constructions usually involve different copular morphemes.

I believe that a comparison of the copula systems of Ndyuka and Gbe should be based on the following information: First, the analysis should determine for each language the types of constructions which correspond to copular constructions in languages like English, and which of these require a copula. Second, if several copular morphemes are used, it needs to be determined what their respective distributions are in each language. Third, it needs to be determined what the range of their functions are in each language. Fourth, the analysis should determine the categorial status of the copular elements in each language.

With respect to the environments in (2) which have traditionally been subsumed among the copular domain but which typically do not involve a copula element in creole languages, such as constructions involving a predicative "adjective", the following information need to be determined: First, the analysis needs to establish the distribution

of these elements in each language. Second, it should determine the categorial status of these items, and their relationship to attributive adjectives in each language.

In the analysis in Chapter Five I refer to predicative "adjectives" such as *siki* 'sick', *fatu* 'fat' in Ndyuka as property items since, as noted by Thompson (1988, p. 167) they refer to "properties, qualities or characteristics of referents." This label, unlike other terms such as (predicative) 'adjective', is meant to be neutral with respect to the syntactic category of these items since crosslinguistically property items fall into several syntactic categories, such as adjective, verb, and noun, depending on the discourse function they perform.

CHAPTER 3

SOCIOHISTORICAL FACTORS IN THE FORMATION OF THE SURINAMESE PLANTATION CREOLE

3. 0. Introduction

This section discusses the relevant sociohistorical factors in the formation of the SPC to establish the sources and mechanisms involved in its emergence.

As discussed in Chapter Two sections 1. 1. 1.-2, contact languages such as creoles generally emerge in settings in which first, regular (second language) acquisition of a common medium of communication by an immigrating population is made impossible due to lack of access to it and/or motivation to acquire it. Second, the immigrating population itself does not share a common means of communication but has a great need for communication. This situation usually arises when an existing population suddenly becomes greatly outnumbered by a foreign (adult) population which is itself not

linguistically and culturally homogenous. The members of the existing group and the foreign group are also typically relatively sharply separated from each other both socially and physically. To determine if, and when such a setting ever obtained in Surinam, and what its specific nature was, the present study needs to investigate data on three broad factors which have a significant influence on the formation of multilingual contact languages such as creoles:

1. The make-up and development of the population in the contact setting, and the factors influencing them. This can be established by analyzing the relevant population statistics.
2. The social and linguistic characteristics of the people involved in the setting and their degree of linguistic heterogeneity. This can be determined by analyzing relevant population statistics and the ethnolinguistic background of the population.
3. The degree and nature of the contact among the members of the population, and the degree of social and physical separation within the population. This can be determined by investigating the community setting and the patterns of interaction among and between the members of the different social groups.

The analysis suggests that in the colony of Surinam the conditions for the formation of a creole (as outlined above) were met between roughly 1680 and 1695. During this period, the population of Surinam increased relatively rapidly and drastically as the result of a significant increase in the importation of slaves from West Africa by the Dutch

colonists. In this period, the existing African and European population was clearly outnumbered by the incoming slave population which was ethnolinguistically partially distinct from it and was itself derived from two culturally and linguistically different populations in West Africa. The majority of the population, the 'new' slaves, did not share a common means of communication and had only relatively few and infrequent contact with the 'old' slaves who occupied different social and occupational ranks in the plantation hierarchy. They did not have any contact at all with the European owners and administrators of the plantation. This suggests that the new slaves must have had little access to the a second language and/or pidgin varieties of English spoken by the preexisting population, or motivation to (fully) acquire them. Instead, they forged a new language, the SPC, using strategies from their mother tongues and whatever strategies they had acquired of the varieties (of English) spoken by the 'old' slaves.

The following description of the social matrix of the formation of the SPC also presents data on the period prior to the emergence of the SPC, roughly 1651-1679, and the period directly following the emergence of the SPC, roughly 1696-1720. The period prior to the emergence of the SPC is discussed for the following reasons: First, to show that during the early period the conditions were not ripe for the emergence of a creole; second, to show that the SPC could not be a direct continuation of the variety used by the early population of the colony as claimed by Smith (1987) and McWhorter (1995) since that variety was probably only a secondary input to the formation of the SPC.

The period directly following the emergence of the SPC is discussed for the following reasons: First, to show that this period did not provide the necessary conditions for the emergence of a creole; second, to show why a relatively strong influence from the Gbe group of languages rather than from the Kikongo group of languages survived in the grammar of the SPC.

3. 1. The demographic development of the Surinamese population

This section discusses the demographic make-up and development of the population of the colony of Surinam between 1651 and 1720 using the available data on its settlement history.

The colony of Surinam was founded as an English colony in 1651 but came under Dutch control in 1667 as the result of the second Anglo-Dutch war. The Dutch settlement did not, however, flourish until after 1682 when the Dutch West Indian Company (WIC), the city of Amsterdam, and the van Sommelsdijck family took joint responsibility for Surinam (Postma, 1990, p. 177-179).

The growth of the Surinamese population between 1651 and 1720 is illustrated in Table 3.1 with reference to its two main social groups, the Europeans and the Africans.

Years	Europeans	Africans	Total	Ratio
1652[a]	200	200	400	1:1
1661[a]	1,000	2,000	3,000	1:2
1665[a]	1,500	3,000	4,500	1:2
1668[a]	1,070	1,850	2,920	1:2
1671[a]	800	2,500	3,300	1:3
1675[a]	550	1,800	2,350	1:3
1679[a]	460	1,000	1,460	1:2
1684[b]	652	3,332	3,984	1:5
1695[b]	379	4,618	4,997	1:12
1700[b]	754	8,926	9,671	1:12
1705[b]	733	9,763	10,496	1:13
1710[b]	845	12,109	12,954	1:14
1715[b]	838	11,664	12,502	1:14
1720[b]	933	13,604	14,537	1:15

Note. The figures include children and adults.
[a]The figures for this year are taken from Voorhoeve and Lichtveld (1975, p. 3).
[b]The figures, based on head tax payments, are taken from Postma (1990, Table 8.1, p. 185).

Table 3. 1: The population development of Surinam (1652-1720)

Three different growth periods emerge from these figures. During roughly the first 30 years (1652-1679) of the colony's existence the growth of both the African and the European population was slow or declining. The ratio of Europeans to Africans remained relatively constant between 1:2 and 1:3. In the second period, roughly between 1680-1695, the figures show a slow growth of the European population and a comparatively rapid increase of the African population. In this period the ratio of Europeans to Africans decreased from 1:2 in 1679 to 1:12 in 1695. In the final period (1695-1720) the already

relatively low ratio of Europeans to Africans slowly decreased further from 1:12 in 1695 to 1:15 in 1720.[1] The figures in Table 2.1 suggest that the SPC was probably formed in the second period between 1679-1695 since it shows the relatively rapid and drastic increase of (one section of) the population typically found in settings in which contact languages such as creoles emerge.

The factors influencing the growth of the population can be determined on the basis of the birth, death, and immigration rate of the population. The only statistics available to date are, however, the 'immigration' rate and the attrition rate of the African population. Column three in Table 3.2 presents the ratio of 'old slaves', those present at the beginning of each decade, to 'new slaves', those brought to Surinam in each decade, during the same period (1660-1719). Table 3.2 only presents data for the period from 1660 to 1720 since data for the earlier years were not available.

[1]Notice that despite a stable ration of 1:12 both the European and the African population doubled between 1695-1700 which also roughly coincided with the increase of the Gbe-speaking slaves in Surinam (see Table 3.4).

Decades	Number of Africans at beginning of decade	Number of Africans imported per decade	Ratio of existing population to imports	Attrition rate among the African population
1651-59	-	200	n.a.	n.a.
1660-69	2,000	2,800	1:1.4	58%.
1670-79	2,000	3,500	1:1.8	72%
1680-89	1,500	9,850	1:6.6	47%
1690-99	6,000	7,345	1:1.2	33%
1700-09	8,926	7,773	1:0.8	28%
1710-19	12,109	7,617	1:0.6	31%

Note. Based on Arends (1995, Table 10, p. 264).
[a]Includes those born in Surinam.

Table 3. 2: The ratio of Africans imported per decade to African[a] population present at the beginning of each decade (1651-1719)

The figures in Table 3.2 suggest two things about the African population in Surinam. First, the increase of the African population was primarily due to the importation of new slaves from Africa. Second, three different periods, similar to the ones which emerged from the figures in Table 3.1, can be identified for the development of the ratio of old to new slaves in the colony of Surinam. During the first period (1660-1679) the slaves present in the colony were outnumbered by those imported to the colony, but the ratio between the two groups remained relatively equal, between 1:1.4-1:1.8. In the second period (1680-1689) the old slaves were clearly in the minority. During this decade, the ratio of old to new slaves had decreased to 1:6.6. At the beginning of the final period (1690-1720) the slaves imported in this decade still outnumbered those already present,

but the ratio of old to new slaves had considerably increased to 1:1.2 in the 1690s and continued to increase, though at a much slower pace, in the following decades. The figures from Table 3.2 suggest that the SPC was probably formed in the second period between roughly 1680-1689 since in this period, as typically found in settings in which creoles emerge, the existing population is suddenly clearly outnumbered by the newly arriving slaves.

The attrition rate of the African population in Surinam in the three periods is given in column four in Table 3.2. During the first and the second period it was very high. In the first period roughly three-fourths (1670s) to around half (1680s) of all the slaves and in the second period roughly half of all the slaves died or left the plantation. During the third period the attrition rate was comparatively low; only about one-third of all the slaves left the plantation or died.

Table 3.3 presents the available data on the age distribution of the black population in Surinam between 1705-1720. It shows that children made up less than 20% of the entire black population. Although the figures in Table 3.3 only cover a relatively short period, they can nevertheless be taken as indicative of the entire period of slavery in Surinam.[2] The figures in Table 3.3 include both children born in Surinam and those born in Africa. Arends (1995) suggests, however, that

[2]It seems likely that there were even fewer children in the period from 1650 to 1700.

> in the absence of concrete data regarding the numbers of locally born children that were taken to town, we can only say that the proportion of locally born to African-born children on the plantations in 1702 was probably between 1-to-2 and 1-to-3. (p. 267)

Years[a]	Children <12	Total African population	% of population <12
1705	1,330	9,763	13.6
1710	1,737	12,109	14.3
1715	1,962	11,664	16.8
1720	2,257	13,604	16.6

Note. The figures are based on head tax payments.
Adapted from Postma (1990, Table 8.1, p. 185).
[a]Postma mentions no figures prior to 1705.

Table 3. 3: The number of African children in Surinam (1705-1720)

Table 3.3 shows that the SPC, like other contact languages, must have been primarily forged by adults since the number of children was relatively low.

The above presented demographic information suggests that in the period from 1651 to 1679 the SPC could not have formed since the entire population only grew slowly and haltingly, and the existing population was only slightly outnumbered by the newly arriving slaves. In this kind of setting the new slaves must have been relatively easily absorbed into the existing linguistic order; they probably acquired the varieties of English spoken by the existing population as their lingua franca.

It seems most likely that the SPC formed between roughly 1680 and 1695 — in the second period. During this period, as characteristically found in settings in which creoles

emerge, the African population increased rapidly and significantly due to the increased importation of (adult) slaves by the Dutch colonizers. This led to the existing African and European population being clearly outnumbered by the newly arriving slaves. In this type of situation regular linguistic and social integration of the new slaves among the old slaves must have been severely obstructed and the need for a common means of communication must have therefore been great.

In the final period (1696-1720), the growth of the population had slowed down significantly and the existing population was no longer outnumbered by the newly arriving slaves. This kind of setting must have made for a relatively smooth integration of the new slaves into the existing social and linguistic order. In this period, the varieties of the SPC must have served as the primary means of communication and the targets of second language acquisition for the new arrivals.

3. 2. The regional origins of the early Surinamese population

This section discusses the regional origin of the Africans and the Europeans who came to the colony of Surinam between 1651 and 1720.

3. 2. 1. The regional origins of the European population

While Surinam was in English hands, most of the planters came from England and Barbados, and spoke different regional dialects of English in communication with each other. In their interactions with the slaves they brought to Surinam from Barbados or

other English colonies the early English planters probably employed second language and pidgin varieties of English current among the slaves in these colonies.

In the 1660s the English planters were joined by about 200 Sephardic Jews who established plantations "three hours' rowing from Paramaribo" (Van Lier, 1971, p. 86). According to Arends (1998), these Jewish immigrants came to Surinam primarily from Cayenne, French Guiana. A small number of them came from other English colonies in the Caribbean, and some might have come from Pomeroon and Essequibo. No Jewish immigrants seem to have come directly from Brazil to Surinam. Most of the Jewish immigrants originated in Livorno and also in Holland; only a few probably came from Dutch Brazil (Arends, 1998). Contrary to claims by Smith (1987) and Goodman (1987) the Jewish immigrants could have brought only few, if any, slaves with them when they arrived in Surinam (Arends, 1998). The languages spoken by the Sephardim were Portuguese, Spanish and probably also varieties of Judeo-Spanish (Arends, 1997).[3]

When Surinam fell into Dutch hands in 1667, the English population slowly declined from about 2000 in 1666 to about 38 in 1680 (Voorhoeve and Lichtveld, 1975, p. 2-3). They were replaced by planters of different national origins. According to Mulert

[3]This evidence on the origin of the Sephardic population calls into question the hypothesis put forward by various scholars such as Smith (1987) that Saramaccan descends from a Portuguese Creole which had formed in Brazil (Arends, 1998). See, however, also Smith (1998b) for a different view.

(1917) the new planters were of English, Dutch, German, and Jewish origin. Numerically, however, the Dutch never made up the majority of the European population in Surinam (Arends, 1995, p. 261-262).

The removal of most of the English planters from the colony prior to the emergence of the SPC suggests that the regional varieties of English as spoken by native speakers could have not played a significant role in the contact setting in which the SPC — an English-lexified creole — emerged. This suggests that the superstrate input to the formation of the SPC could have only been the second language and pidgin varieties of English spoken by the old slaves.

3. 2. 2. The regional origins of the African population

The Africans brought to Surinam between 1651 and 1720 originated from three main areas: the Slave Coast, the Loango region, and the Gold Coast. The Dutch *Slave Coast* of that period refers to the present-day states of Togo and Benin. The Dutch *Loango* region refers to "the region just north of the Zaire river, i.e., Cabinda, the coastal regions of Congo and Zaire, and southern Gabon." (Arends, 1995, p. 245). The Dutch *Gold Coast* region includes the central and eastern area of the present-day state of Ghana (see also Map 2.2). In all three areas slaves were recruited not only along the coast line but also more inland. On the Slave Coast, slaves were recruited up to 200 kilometers distance from the coast. On the Gold Coast the distance did not exceed 300 kilometers,

whereas in the Loango region the distance varied between 300 and 600 kilometers (Manning, 1990, p. 62-70).

The three identified slave recruitment areas can be related to specific ethnolinguistic groups based on the present distribution of languages in these regions.[4] As discussed in detail in Chapter Two sections 2.3.2.-5., the Slave Coast region has primarily been inhabited by speakers of the Gbe cluster of languages which is part of the Kwa group of Niger-Congo languages (Bendor-Samuels, 1988; Pazzi, 1979). In the Loango region, the Dutch mainly recruited Kikongo-speaking slaves (Postma, 1990, p. 101). Kikongo is part of the Kongo cluster of languages belonging to the Central Bantu group of the Niger-Congo family of languages (Grimes, 1988). The slaves taken from the Gold Coast region must have been largely speakers of Akuapem and Twi of the Akan subgroup and of Ga of the Ga-Adangme subgroup of the Kwa group of Niger-Congo languages (Arends 1995, p. 249).

The numerical distribution of slaves from the three recruitment areas between 1652-1719 is given in Table 3.4. It is based on archival documents recording the number of

[4]The correlation method assumes that no major changes have taken place in the distribution of ethnolinguistic groups since the time of slavery. Arends (1995) cites the following statement from Hair (1967, p. 247) to confirm the validity of this assumption: "if we [...] compare the ethnolinguistic inventory of today with that of the period before 1700, we find a striking continuity [...] the ethnolinguistic units of the Guinea coast have remained very much the same for three, four or five centuries" (p. 247).

slaves and African ports of departure of the Dutch slave shipments into Surinam.[5] The archival records on which Table 3.4 is based do not cover the period 1652-1674. Arends (1995), however, estimated on the basis of the overall Dutch slave trade to the Americas that the geographical origins of slaves brought by the first planters "were by and large identical to those of the Surinam imports in the decades following Dutch take-over, i.e. the Slave Coast and Loango areas." (Arends, 1995, p. 241).

Years	Gold Coast		Slave Coast		Loango		Subtotal	Unknown		Total
	N	%	N	%	N	%	N	N	%	N
1652-79	-	-	-	-	260	5.4	260	4,574	94.6	4,834
1680-89	325	3.3	3,854	39.4	4,561	46.7	8,740	1,032	10.6	9,772
1690-99	-	-	3,147	42.8	2,999	40.8	6,146	1,203	16.4	7,349
1700-09	657	8.3	5,587	70.6	1,147	14.5	7,391	528	6.7	7,919
1710-19	-	-	5,020	69.0	1,589	21.3	6.609	668	9.2	7,277

Note. Adapted from Arends (1995, Table 2, p. 243)

Table 3. 4: Place of departure of slaves imported into Surinam (1652-1720)

Table 3.4 illustrates that between 1652 and 1720 the African population of Surinam was primarily drawn from two regions, the Loango area and the Slave Coast. The Gold Coast only played a minor role in this period since it supplied less than 1,000 slaves whereas the Slave Coast and the Loango area supplied more than 17,000 and 11,000

[5]All the Dutch shipments between 1675-1803 are listed in appendices 1 and 2 in Postma (1990, p. 308-348). All the shipments with a Surinam or mixed Surinam destination filtered out from the former list are listed in appendix 1 in Arends (1995, p. 278-281). Table 4, taken from Arends (1995, p. 243), is based on the latter list.

slaves respectively in the same period. In the first two decades for which sufficient data exist (1680-1699), the Slave Coast and the Loango area each supplied roughly half of all the slaves entering Surinam while in the second two decades (1700-1719) 70% of all the slaves brought to Surinam originated in the Slave Coast. Shipments from the Loango area dropped by roughly 20% in this period.

The slaves that came during the first period with the English planters from other English possessions in the Caribbean, such as Barbados, must have also been familiar with an English Pidgin or second language variety of English upon arrival (Arends, 1995; McWhorter, 1995).

The information on the regional origin of the population in Surinam between 1651 and 1720 suggests the following things about the inputs to the formation of the SPC. During the first period (1651-1679) the common means of communication among the population must have been second language and pidgin varieties of English which had been brought to Surinam by the early planters and slaves coming from other English possessions, and which had formed in interactions between Europeans and Africans in Surinam. The new slaves probably acquired some second language version of these varieties upon arrival since, given the relatively favorable demographic conditions discussed above, they must have had relatively good access to them and motivation to acquire them. The second language and pidgin varieties of English used for inter-ethnic communication during this period must have been subject to contact-induced change from

first language varieties of English, other European languages, and the native languages of the Africans.

During the second period (1680-1695), the majority of the population in Surinam did not share a common means of communication. The new slaves did not share a common means of communication since they consisted of speakers coming from two distinct clusters of languages in Africa. Given the unfavorable demographic conditions during this period, they must have also had little access to the varieties of English used by the old slaves and the Europeans, and little motivation to (fully) acquire them. This suggests that the new slaves, who were the largest group within the population, must have had a great need for a common means of communication. The primary linguistic inputs to the SPC's emergence must have been the mother tongues of the newly arriving slaves, the varieties of the Gbe and the Kikongo clusters of languages. The second language varieties of English — and Portuguese on some plantations — spoken by the Africans who had arrived prior to 1680 must have served as secondary inputs to the formation of the SPC.

During the third period (1695-1720) the common means of communication among the plantation population must have been the varieties of the SPC. It seems likely that particularly the varieties of the SPC that were spoken by the slaves with a Gbe linguistic background gained considerable prominence during this period since the overwhelming majority of the slaves that were brought to Surinam during this period were also speakers of Gbe varieties. The Gbe-influenced varieties of the SPC would have thus been most

easily acquired by them. During this period, the SPC would have also been primarily subject to contact-induced change from the varieties of Gbe. The different varieties of the Kikongo cluster and the varieties of English spoken by the Africans who had arrived prior to 1680 must have served as secondary influences on the SPC. This scenario suggests that the relatively strong Gbe influence in the SPC emerged as the result of two factors. First, the Gbe-influenced varieties of the SPC must have served as the target of second language acquisition for the slaves arriving in the third period. Second, some of the Gbe influence must have been the result of contact-induced change from the varieties of Gbe spoken by the slaves who were acquiring the SPC as a second language during the third period.

3. 3. The patterns of social interaction

The literature on the colony of Surinam between 1651-1720 suggests the existence of two different types of community settings: the small farming unit phase and the typical plantation phase. The two settings involved different patterns of interaction between and within the major groups (Arends, 1995) and are thus discussed separately.

3. 3. 1. The small farming unit phase

During the English presence (roughly 1652-1670) in Surinam the settlement consisted of small farming units, also called homesteads, which were worked either single-handedly by the owner and his family or by the planter family in conjunction with a few indentured laborers from Europe and slaves from West Africa (Rens 1953, pp. 61, 75-77).

These small-scale farming units were not characterized by strict occupational or social segregation between Europeans and Africans on the one hand and between masters and servants on the other (Rens, 1953, pp. 57-61, 76). The indentured laborers from Europe and the slaves from West Africa lived in the same building or in close proximity to each other and the two groups maintained close social ties (Rens, 1953, p. 59). Similar cohabitation patterns and close social ties also existed between the planters and their European and African servants (Rens, 1953, p. 61). It seems that both Europeans and Africans worked and socialized together on a frequent basis despite the difference in power that existed between them.

This situation remained relatively stable until the late 1670s due to both the planters' lack of sufficient capital to buy or employ new laborers and the absence of a continuous flow of new laborers (Rens, 1953, p. 61). After the late 1670s, during the early Dutch reign in Surinam, this situation gradually changed. The small-scale farming units were gradually replaced by increasingly larger farming units which employed increasingly larger slave contingents. Until roughly 1680 the farming units were expanded by slave labor coming directly from Africa and by slaves left behind by the departing English planters (Rens, 1953, p. 79).

The change in the size of the farming units was also accompanied by a change in the social and ethnic make-up of Surinam's population. During the Dutch period very few, if any, indentured laborers were brought to the colony of Surinam (Rens, 1953, p. 58),

which meant that the population was now made up of two broad social groups with considerably less close contact and interaction: the planters and their administrators from Europe, and their laborers from West Africa.

3. 3. 2. The typical plantation phase

The large-scale sugar plantation which started to dominate in post-1684 Surinam was strictly hierarchically organized and was characterized by relatively strict occupational and social segregation between Europeans and Africans, the two main social groups. The segregation was also clearly reflected in their living arrangements since the living quarters of the (African) labor force were located clearly separate from those of the Europeans. The top of the sociopolitical hierarchy of the plantation was made up of a tiny group of Europeans and consisted of three positions: the owner or top manager, the resident manager, and the white overseer. The plantation was headed by the owner and his family or, particularly in later years when these resided permanently in Paramaribo or Europe, by a *zaakwaarnemer* or "top manager". The top manager had very little or no direct contact with the African labor force since he did not reside on the plantation (Van Stipriaan, 1993, p. 293-308).

The highest position in the resident plantation hierarchy was that of the resident manager. He determined and supervised the production of the plantation. He remained on average 5.5 years with the same plantation (Van Stipriaan, 1993, p. 285). Socially, he interacted primarily with the managers from neighboring plantations and his favorite

slave(s) (Van Stipriaan, 1993, p. 287-288). In work-related matters he engaged in interactions with the European overseer(s), the *basyia*(s) — the leader of the slave group — and the domestic staff (Van Stipriaan, 1993, p. 284). His interactions with the rest of the labor force were irregular and minimal, since he generally delegated these contact to the white overseer and the *basyia* (Van Stipriaan, 1993, p. 284).

The lowest European official on the plantation was the overseer. He seldom stayed more than one year and was charged with supervising the work of the labor force and with taking care of all of the unpopular tasks such as punishing the slaves (Van Stipriaan, 1993, p. 283-284). The nature of his work thus involved relatively frequent face-to-face contact with the African work force. The unpopular nature of his work coupled with his lack of power, however, earned him little respect with either the slaves (Van Stipriaan, 1993, p. 284) or the resident manager, and thus left him socially isolated from both (Van Stipriaan, 1993, p. 278).

The African slave labor force was numerically but not politically the dominant group on the plantation. It was occupationally and socially subdivided into two main groups, the elite slaves and the field hands. The slave elite, particularly the *basyia* and the domestics, and to a lesser degree the skilled laborers, was the link between the two broad social groups on the plantation, the Europeans and field hands, since they worked in close proximity of the Europeans but associated socially mainly with the other slaves.

The *basyia* headed the slave force and was the most constant factor of the plantation management since he had spent all or most of his life on the plantation (Van

Stipriaan, 1993, p. 276-277). His tasks consisted of supervising the work on the plantation, informing the manager, executing punishments (Van Stipriaan, 1993, p. 278), and serving as an intermediary between the slaves and the management in times of unrest (Van Stipriaan, 1993, p. 281). As noted by Arends (1994a):

> This placed him in a position of power, not only towards his fellow slaves, but also, at least to some extent, towards the director, who depended on him much more than on the white overseer since he was much more knowledgeable of plantation work and had far more respect among the slaves. (p. 393)

Although the *basyia* was part of the plantation management and had to obey the manager, his solidarity clearly lay with his own social group, the slave community (Van Stipriaan, 1993, p. 227), and the success of his work was crucially dependent on his being respected by them (Van Stipriaan, 1993, p. 278).

Much less is known about the other members of the slave elite such as the domestic servants and the skilled labor. The domestic staff usually consisted of men and women born in Surinam who were often of mixed origin (Van Stipriaan, 1993, p. 371). Its size varied according to the size of the European population on the plantation. According to Van Stipriaan (1993, p. 371), the domestic servants were the "ear" and "eye" of the planter but they also assumed a leading position among their own social group, the slaves.

The skilled labor generally consisted of men who performed a wide variety of jobs like hunter, carpenter, tailor, locksmith, builder, and nurse (Hoogbergen and de Theye, 1986, p.134, 136; Van Stipriaan, 1993, p. 381). The contact of the skilled labor with the

Europeans were probably less frequent and intense than those of the other members of the slave elite since their work involved less face-to-face interactions with them.

Roughly 80% of the slaves on the plantation, usually those who had recently arrived from Africa, were employed as field workers. They performed the hardest labor and lived under the worst conditions. Their main tasks included planting, maintaining, harvesting, and transporting the plantation's cash crops. A small number of them were usually responsible for the food production on the plantation (Van Stipriaan, 1993, p. 351). Socially and professionally, the field workers primarily interacted among themselves and to some extent with the slave elite. Contact with the Europeans were infrequent and minimal at best, and most likely restricted to work-related matters with the overseer.

The information on the community setting and the patterns of interaction in Surinam between 1651 and 1720 suggests the following things about the formation of the SPC. During the first period (1651-1679) the newly arriving slaves were in a good position to acquire the varieties of English in usage among the European and African population on the small homesteads since they were in close and frequent contact with their speakers and therefore must have also had a relatively high motivation to acquire them. During this period the varieties spoken natively by the Europeans were also part of the contact setting since the Europeans were in close and frequent contact with the slaves.

In the second period (1680-1695), the early plantation phase, a (new) means of communication must have arisen quite suddenly among the new slaves for the following

reasons. First, the lack of close and frequent contact between the existing population and the new slaves in the strictly hierarchically organized plantation structure where the two groups occupied different social and occupational ranks did not put the new slaves in a position to (fully) acquire the second language varieties of English used by the existing population. Second, the new slaves, coming from two distinct ethnolinguistic groups, also did not share a means of communication in common. Third, the new slaves were in great need of a common means of communication since they were in close and frequent contact with each other. In this setting the new slaves must have made recourse to the linguistic resources available to them, strategies from their mother tongues — the varieties of Gbe and Kikongo — and strategies from the varieties of English they had acquired (during the process of seasoning) to forge a common means of communication.

In the period from 1696 to 1720 the newly arriving slaves were in a good position to acquire the varieties of the SPC which had emerged among the slaves (field hands) who had been involved in the previous setting. The new slaves were in close and frequent contact with the majority of the field slaves from the previous setting since they occupied the same social and occupational rank as they did. The varieties of English spoken by the population from the first setting probably served as a secondary influence on the varieties of the SPC and as secondary models of language use for the new slaves--also field hands--since the contact between the (new) slaves working on the fields and the old slaves who for the most part probably performed more skilled tasks by that period were probably much less close and frequent than the contact within the group of field workers. The

primary influence on the varieties of the SPC during this period must have thus been the native languages spoken by the field workers who were primarily speakers of Gbe.

3. 4. Summary and conclusion: The nature of the three contact settings in early Surinam

Based on the demographic, ethnolinguistic and social information discussed above, three demographically clearly distinct but ethnolinguistically and socially only partially distinct contact settings can be identified for the formative period of the SPC. The characteristics of each contact setting and the possible mechanisms of language change that might have taken place in them are briefly summarized below.

3. 4. 1. Contact Setting I (1652-1679): The period of the use of varieties of English

Demographically, the first contact setting was characterized by relatively high ratios of Europeans to Africans and high ratios of old slaves to newly imported slaves.

Ethnolinguistically, the early European population consisted mainly of speakers of English and after 1665 also of speakers of Portuguese and Spanish. During the early part of the 1670s the speakers of English were replaced by speakers of different European languages such as Dutch, Swedish, German etc.. The Africans were most likely native speakers of Gbe, Kikongo and Akan. The early Europeans and slaves coming from other English possessions must have also spoken pidgin and second language varieties of English current in the colonies from which they came.

Socially, this setting was dominated by the small farming unit. Despite differences in social status between the members of the farming population this setting probably involved a relatively small social distance between them since all the members of the farming unit lived and worked in close proximity to each other.

This setting did not provide the necessary social conditions for the emergence of a creole for the following reasons. First, the population probably had a lingua franca, a set of second language and pidgin varieties of English. Second, the newcomers to the setting had sufficient access to these varieties and must have also had sufficient motivation to (fully) acquire them since they were in the minority and were able to enter into close social contact with its speakers. This suggests that the newcomers probably shifted to the second language and pidgin varieties of English current on the plantations as their primary medium of (inter-ethnic) communication. As typically found in all language shift situations, they probably also retained some strategies from their native languages and transferred them into these second language and pidgin varieties of English. This suggests that the superstrate input to the SPC was relatively heterogeneous. It probably consisted of a continuum of (partially?) mutually intelligible second language and pidgin varieties of English.

3. 4. 2. Contact Setting II (1680-1694): The period of the emergence of the SPC

Demographically, the second contact setting was characterized by a rapid growth of the African population, relatively low ratios of Europeans to Africans, low ratios of old to newly arriving slaves, and a high attrition rate among the slaves.

Ethnolinguistically, the slaves imported during this period consisted of equal numbers of speakers of Gbe and Kikongo. The Europeans were speakers of various European languages. The newly arriving Africans probably did not speak a second language variety of English and/or an English Pidgin upon arrival. Given the practice of 'seasoning' — the new slaves' introduction to various aspects of the life on the plantation — the new slaves must have at least superficially been exposed to such varieties on the plantations in Surinam by the Africans who had arrived prior to 1680.

Socially, this setting was characterized by the typical plantation setting. It involved a much greater number of manual laborers — African slaves — per agricultural unit than the small farming unit and was strictly hierarchically organized. This must have led to a considerable reduction in the social and work-related contact and to a relatively large occupational and social distance between the different social groups on the plantation, such as the Europeans and the Africans, and the elite slaves and the mass of field hands. During this period the elite slaves consisted primarily of old slaves and the field hands were made up by and large of the newly arriving slaves.

This type of setting provided the necessary conditions for the emergence of a creole. First, the majority of the plantation population — the newcomers — did not share

a common means of communication since they consisted of members coming from two distinct ethnolinguistic groups speaking related but different languages. Second, the numerical predominance of the new slaves and their relatively strict social separation from the old slaves and Europeans on the typical plantation must have considerably reduced their access to the second language and pidgin varieties of English current among the old slaves and Europeans and their motivation to (fully) acquire them. Third, the new slaves had a great need for a common means of communication since, given their work and living conditions, they were in close social and professional contact with each other. This suggests that the newcomers probably had to forge their own means of communication. For this they must have made recourse to all the linguistic resources available to them. In this kind of setting, their primary resources were strategies from their native language(s) — varieties of Gbe and Kikongo. Their secondary resources must have been the strategies borrowed from the other varieties they were exposed to such as the second language and pidgin varieties of English spoken by the old slaves. First language varieties of English could have not been part of the contact setting since its speakers were no longer part of the contact setting.

This suggests that during this period the SPC was made up of a set of relatively well defined contact varieties characterized primarily by strategies retained from the native languages of the (new) slaves and secondarily by strategies borrowed from the second language and pidgin varieties of English spoken by the old slaves.

3. 4. 3. Contact Setting III (1695-1720): The period of the stabilization of the SPC

The final contact setting had the same social characteristics as the second period but it was demographically much more stable and ethnolinguistically clearly more homogenous than that of the second period.

The population was demographically relatively stable during this period. The ratios of Europeans to Africans continued to decrease at a much slower rate and the ratios of old slaves to new slaves had greatly increased; it was higher than during the first contact setting due to a continually decreasing attrition rate and to a reduction in the number of slaves imported per decade.

Linguistically, about 70% of all the slaves imported during this period were speakers of Gbe. The old slaves must have consisted of two groups of people. The first group of slaves — the field hands — who had arrived during the second period were native speakers of Gbe and Kikongo. They most likely used the varieties of the SPC which they had created during the second period for most of their everyday interactions. The second group of slaves — the elite slaves — many of whom had arrived during the first period were probably also native speakers of Gbe and Kikongo but for most of their everyday interactions they most likely used the second language and pidgin varieties of English current during the first period. But it seems highly likely that they were also familiar with varieties of the SPC which would have enabled them to communicate with the first group of slaves. It seems likely that during this period there would have also been

children who were acquiring the SPC as their first language.[6] The Europeans were speakers of various European languages and possibly also speakers of pidgin varieties of English spoken by the second group of slaves with whom they primarily interacted. Few, if any, native speakers of English were present during this period.

By this time, the majority of the population had a common means of communication, the varieties of the SPC which had emerged during the second contact setting. The newcomers to the setting had sufficient access to the varieties of the SPC and must have also had sufficient motivation to (fully) acquire them since they were in the minority and were in close social contact with its speakers. The newly arriving slaves during the third period must have acquired the varieties of the SPC from its creators — the field hands from the second period — since the new slaves — also part of the group of field hands — were in close contact with the creators of the SPC — the field hands from the second period. The new slaves probably did not acquire much of the varieties of English spoken by the slaves from the first period — now the elite slaves — since they were probably socially relatively sharply separated from them. This suggests that the newcomers most likely shifted to the varieties of the SPC as their primary means of (inter-ethnic) communication. Assuming that the varieties of the SPC differed according to the first language background of its speakers, the newcomers probably shifted to the varieties used by slaves with a Gbe ethnolinguistic background since, due to the new slaves' predominantly Gbe background, they would have been the easiest for them to

[6]This was pointed out to me by D. Winford.

acquire. In addition, the children learning the SPC as their first language probably also contributed to the leveling of the first language dependent differences between the different varieties of the SPC.[7] As typically found in all language shift situations, the new slaves probably also retained strategies from their native languages when using these variety. This suggests that the relatively strong influence from the Gbe group of languages in the grammatical system of the SPC and its descendants must have emerged during the third period as the result of the selection of the Gbe-influenced varieties over the Kikongo-influenced varieties of the SPC by the new slaves who were primarily speakers of Gbe, and as the result of substrate retention from Gbe during shift to the SPC by these Gbe speakers. That is, it is partly the result of substratum influence on the SPC from the varieties of Gbe spoken by the slaves who acquired the varieties of the SPC as a second language during the third period.

[7]This was pointed out to me by D. Winford.

CHAPTER 4

SUBSTRATE INFLUENCE IN SERIAL VERB CONSTRUCTIONS

4. 0. Introduction

This is the first of two chapters on the linguistic evidence on the formation of the SPC. In this chapter I analyze and compare serial verb constructions (SVCs) in Ndyuka, one of the modern descendants of the SPC, and the modern descendants of the main substratal input to the formation of the SPC, the Gbe group of languages. In Chapter Five I analyze and compare copular and ascriptive constructions in Ndyuka and Gbe.

This chapter on SVCs is structured as follows. Part One provides a brief definition of the phenomenon of SVCs. Part Two reviews the literature on substrate influence in SVCs to determine what the main shortcomings of such studies are. Part

Three presents and compares the semantic properties of the SVCs in my data. Part Four briefly reviews the syntactic literature on SVCs, outlines the aspects a (descriptive) analysis of the syntactic properties of SVC in Ndyuka and Gbe should focus on, and presents and compares the syntactic properties of SVCs in Ndyuka and Gbe. Part Five summarizes the findings.

4. 1. Defining serial verb constructions

SVCs have informally been characterized as "a row of verbs one after another [... in which] the verbs stand next to each other without being connected (Westerman, 1930, p. 126).[1] Typically, SVCs have the following structure:

(1) NP_1 V_1 (NP_2) V_2 (XP_3) (X=N, P)

Since the structure in (1) is rather vague, many scholars (Baker, 1989; Foley and Olson, 1985; Jansen, Koopman and Muysken, 1978; Sebba, 1987; Veenstra, 1996; Winford, 1993) have tried to make the notion of SVC more precise by proposing several syntactic and some semantic characteristics of SVCs summarized in (2-3).

(2) The syntactic properties of SVCs:

In a sequence containing two or more verbs,

a. the verbs must be lexical verbs which can also function as the main verb in a sentence.

[1]Christaller (1875) was probably the first to refer to SVCs (in Twi) but the term 'serial verb' was most likely coined by Stewart (1963) (Sebba, 1987, p. 5, 7; Winford, 1993, p. 211).

b. the verbs must have only one overt subject.

c. the verbs must have only one tense, aspect, and polarity specification.

d. the verbs must not be separated by a pause or markers of coordination and subordination.

e. the verbs in series consist of one slot ('open slot') which allows a wide variety of verbs and a second slot ('closed slot') which only allows one or a small number of closely related verbs.

(3) The semantic properties of SVCs

In a sequence containing two or more verbs,

a. the two verbs express one proposition.

b. one verb, usually the one in the 'closed slot' (serial verb), performs some non-verbal function of the proposition expressed by the other verb, the one in the 'open slot'.

c. the overtly expressed NP arguments of the verbs in series may not be coreferential.

The properties in (2a) concern the categorial status of the so-called serial verb in the construction, and the properties in (2b-e&3a-c) relate to the constituency structure of SVCs. Below I discuss how some of the properties in (2-3) can be used to distinguish SVCs from other closely related constructions such as coordinate and subordinate constructions.

4. 1. 1. SVCs and coordination

In this section I discuss the similarities and differences between SVCs and coordinate constructions in order to determine whether the relationship between the verbs in a SVC is akin to those of verbs in a coordinate construction.

The examples in (4-6) show that in Ndyuka and in Gbe SVCs (4) are clearly distinct from coordinating constructions which involve a conjunction (5).[2] If coordinating conjunctions such as *n(e)en* 'and', *ma* 'but', *da* 'and then' in Ndyuka are present, both the subject of V_2 and, in the case V_2 is a transitive verb, its object have to be present (5a). In addition, the subject of V_2 does not have to be coreferential with that of V_1 (5b). If a subject is present preceding V_2 (6a) or a conjunction is inserted between the two verbs (6b) the structure does not qualify as a SVC, as suggested by the unacceptable A readings.

(4) a naki a bata booko. (Ndyuka)
she hit DET(sg) bottle break
'She hit the bottle until it broke.'

(5) a. a naki a bata nen a booko en. (Ndyuka)
she hit DET(sg) bottle and she break it
'She hit the bottle until it broke.'

b. a naki a bata nen den booko en.
she hit DET(sg) bottle and they break it
'She hit the bottle and they broke it.'

(6) a. *a naki a bata a booko (en).
she hit DET(sg) bottle she break it
*A: 'She hit the bottle until it broke.' (Ndyuka)
B: 'She hit the bottle, she broke it/it broke.'

b. *a naki a bata neen (a) booko (en).
she hit DET(sg) bottle then (she) break it
*A: 'She hit the bottle until it broke.'
B: 'She hit the bottle then she broke it/it broke.'

The same difference in behavior between SVCs and coordinate structures is found with respect to tense, mood, and negation markers. In putative SVCs tense, mood, and negation markers may only precede V_1 and V_2 remains unmarked (7). In coordinate constructions both V_1 and V_2 may be marked for the same (8a) or for different (8b) tense, mood, and polarity.

(7) a. a na o naki a bata booko. (Ndyuka)
he NEG FUT hit DET(sg) bottle break
'He won't break the bottle by hitting.'

b. *a na o naki a bata na o booko.
she NEG FUT hit DET(sg) bottle NEG FUT break

(8) a. a na o naki a bata
she NEG FUT hit DET(sg) bottle

[2]Due to considerations of space I only give examples from Ndyuka. Examples from Gbe are supplied if they illustrate a different pattern.

nen a na o booko en. (Ndyuka)

and she NEG FUT break it

'She will not hit the bottle and she will not break it.'

b. a (be) naki a bata

she PAST hit DET(sg) bottle

ma a na o booko en. (Ndyuka)

but she NEG FUT break it

'She hit the bottle but she will not break it.'

The only similarity between the two types of structures emerges with respect to (imperfective) aspect marking. Both SVCs (9a) and coordinate structures (9b) may be marked for (imperfective) aspect on V_1 and V_2.

(9) a. a e naki den bata e booko. (Ndyuka)

he IMP hit DET(pl) bottle IMP break

'He is (continuously) breaking the bottles by hitting.'

b. a e naki den bata nen a e booko den.

she IMP hit DET(pl) bottle and she IMP break them

'She is hitting the bottles and then breaking them.'

In some Gbe varieties such as Waci habitual aspect is also marked on V_1 and V_2 (10a) and in other varieties which have separate interative and habitual markers, such as Maxi, both are only marked preceding V_1 (10b).

(10) a. lagostɔ́ a hɛ́n ná va ná.

lagos-people the carry HAB come HAB

'The people from Lagos generally bring it.' (Gbe: Waci1)

b. e nɔ̃/lɛ xo afũ hu. (Gbe: Maxi)

he HAB/IT hit dog kill

'He is habitually/continually killing dogs by beating them to death.'

The above examples suggest that SVCs are clearly distinct from coordinate structures which involve a coordination marker.

As previously remarked by Sebba (1987), Byrne (1987), Winford (1993), Veenstra (1996) SVCs, as defined in (2-3), however, share a number of properties in common with paratactic constructions which do not involve a coordination marker. Like SVCs, paratactic constructions like (11) involve a single subject which is followed by a series of VPs which are not joined by a coordination marker.

(11) a boli a foo nyan (ala fiya). (Ndyuka)

he cook DET(sg) bird eat all IDEO

'He cooked the bird and ate it (all).'

In addition, tense and polarity markers generally only precede V_1 (12a-b) in paratactic constructions as in SVCs.

(12) a. a be boli a foo nyan (ala fiya).

he PAST cook DET(sg) bird eat all IDEO

'He cooked the bird and ate it (all).' (Ndyuka)

b. *a be boli a foo be nyan (ala fiya).
he PAST cook DET(sg) bird PAST eat all IDEO

They also, however, differ from SVCs in the following ways: First, paratactic constructions do not express one proposition like SVCs. They typically express two often sequentially ordered actions. Second, paratactic constructions (12a) seem to be semantically equivalent to 'corresponding' coordinate constructions (13) but SVCs are not (6b).

(13) a be boli a foo nen a (be) nyan (ala
he PAST cook DET(sg) bird and he PAST eat all
fiya).
IDEO
'He cooked the bird and then ate it (all).'

Third, in paratactic constructions, one of the verbs does not perform some non-verbal function with respect to the other verb. In SVCs one of the verbs seems to modify the proposition of the other verb; it either introduces a thematic role of that proposition or modifies that proposition. Fourth, in paratactic constructions the overtly expressed NP arguments of the different verbs may be coreferential (14a) while in SVCs they may not be (14b). In SVCs in which one argument can be said to be shared by both verbs, such as *a bata* in (14c), it can only be overtly expressed once (14c) as an argument of the first verb. If they are expressed twice the structure cannot be interpreted as a SVC, as

indicated by the unacceptable A reading (14c). In paratactic constructions NPs may be coreferential (14a) or one may be elliptically omitted, as indicated by the round brackets in (14a).

(14) a. a boli [a foo]$_i$ nyan ([en/ala fiya]$_i$). (Ndyuka)
he cook DET(sg) bird eat it/all IDEO
'He cooked the bird and ate (it all)?'

b. *a teki [a nefi]$_i$ koti [en]$_i$.
she take DET(sg) knife cut it

c. a naki [a bata]$_i$ booko [en/ala fiya]$_i$.
he hit DET(sg) bottle break it/all IDEO
*A: 'He hit the bottle until it broke.'
B: 'He hit the bottle and broke it/it all.'

Fifth, in SVCs each argument can be extracted separately (15a-c) while in paratactic constructions all coreferential arguments have to be extracted together (15d-e) and non-coreferential NPs cannot be extracted at all (15f-g).

(15) a. den an wani seli kwaka gi i.
they NEG want sell processed.cassava give me
'They don't want to sell you processed cassava.' (Ndyuka)

b. san den an wani seli __ gi i?
what they NEG want sell __ give you
'What don't they want to sell you?'

c. sama den an wani seli kwaka gi __?

who they NEG want sell processed.cassava give __

'Who don't they want to sell processed cassava to?'

d. sa(n) a boli __ nyan __.

what he cook __ eat __

'What did he cook and eat?'

e. *sa a boli __ nyan en.

what he cook __ eat it

f. Awasu sutu foo koti alisi.

Awasu shoot bird cut rice

'Awasu shoots birds and harvests rice.'

g. *sa Awasu sutu __ koti alisi?

what Awasu shoot __ cut rice

Sixth, the types of verbs that can be juxtaposed in paratactic constructions are relatively unconstrained. That is, there are not any tight specifications on the types of verbs which can be combined but there are in SVCs.

This section showed that SVCs are distinct from coordinate constructions which involve a coordination marker and from paratactic constructions which do not involve a coordination marker.

The fact that paratactic constructions and SVCs are synchronically relatively distinct, does not necessarily mean that SVCs were clearly distinct diachronically from

paratactic constructions. It seems possible (to speculate) that SVCs, particularly those which involve two transitive verbs, derive from paratactic constructions via the following path: First, some SVCs were paratactic constructions which (optionally) allowed the expression of an NP_3 that was coreferential or anaphoric to NP_2. Second, as one of the verbs came to take on a more 'functional' meaning with respect to the other verb in the construction and the two verbs and their argument structures became semantically more integrated or fused, the anaphoric NP became disallowed — as a kind of structural integration. If this point of view is accepted, then SVCs involve what Foley and Olson (1985) call core level linkage (of VPs). "In core level junctures two cores, each with their own nucleus [verb] and corresponding arguments, are joined together to form a larger complex core." (p. 47). They differ from what they call peripheral layer junctures or paratactic constructions and nuclear layer junctures. In peripheral layer junctures or paratactic constructions two independent grammatical units are joined. Both units have their own nucleus, which has its own obligatory and non-obligatory arguments and operators (Foley and Olson, 1985, p. 56). Nuclear layer junctures differ from both core and peripheral layer junctures in that they are both "made up of two or more verbs joined together." (Foley and Olson, 1985, p. 37). The verbs in a nuclear layer juncture are juxtaposed and no elements may intervene between them. They behave like a single unit and have to share all arguments and operators.

4. 1. 2. SVCs and subordination

In this section I discuss the similarities and differences between SVCs and coordinate constructions in order to determine whether the relationship between the verbs in a SVC is akin to that of verbs in a coordinate construction.

Most researchers on SVCs agree that SVCs are clearly distinct from constructions involving subordination for the following reasons: First, subordinate constructions in Ndyuka and Gbe typically involve a subordination marker (16a) such as *fu* in Ndyuka (16b) while SVCs may never contain such markers as suggested by the unacceptable A reading in (16b). Second, in subordinate constructions V_1 and V_2 may be marked for different tense, mood, aspect, and negation (16c) which is not possible in SVCs.

(16) a. mi akisi en fu (a) go a osu. (Ndyuka)
I ask her SUB she go LOC house
'I asked her to go home.'

b. a naki a bata fu (a) booko.
she hit DET(sg) bottle SUB it break
*A: 'She hit the bottle until it broke.'
B: 'She hit the bottle to break it.'

c. mi taagi en fu a na o go a osu.
I tell her SUB she NEG FUT go LOC house
'I told her not to go home.'

Third, the overtly expressed NP arguments of the different verbs may be coreferential in subordinate constructions (17) but they may not be coreferential in SVCs (13b).

(17) mi akisi $[en]_i$ fu $[a]_i$ go a osu. (Ndyuka)
I ask her SUB she go LOC house
'I asked her to go home.'

Fourth, the two verbs in constructions involving subordination generally have their own intonation contours while the two verbs in a SVC are generally part of the same intonation contour. Fifth, the types of verbs that can be juxtaposed in constructions involving subordination are relatively unconstrained. That is, there are not any tight specifications on the types of verbs which can be combined as in SVCs.

The above discussion suggests that SVCs are clearly distinct from subordination constructions which involve a subordination marker such as *fu* in Ndyuka. Ndyuka and Gbe do not seem to have subordinate constructions which do not involve a subordination marker.

4. 1. 3. Other distinctions

The comparative analysis of SVCs in Ndyuka and Gbe excludes the types of constructions given in (18) it has been argued that there are no compelling reasons for excluding them from a study of SVCs since they are syntactically similar to them.

(18) a. a pikin go/kon nyan a kwaka. (Ndyuka)
DET(sg) child go/come eat DET(sg) processed cassava
'The child went/came and ate/to eat the processed cassava.'

b. a pikin an wani siibi.
DET(sg) child NEG want sleep
'The child doesn't want to sleep.'

c. a begin paandi eside.
she begin plant yesterday
'She started planting yesterday.'

d. a pikin nyan kaba.
DET(sg) child eat finish
'The child has eaten already.'

Constructions of the type given in (18a) I exclude from the present study since they have the structure of typical paratactic constructions in Ndyuka and Gbe as discussed above in section 4. 1. 1. The structures in (18b-c) I exclude from this study since they clearly involve a subcategorization relationship between the two verbs. That is, the verbs which follow *wani* and *begin* are clearly their complements. Finally, the structure in (18d) I exclude since *kaba* functions like a postverbal aspect marker which is clearly subcategorized for by the verb preceding it.

Their exclusion is not meant to deny the possibility that some of these constructions, particularly constructions involving *kaba* (18d), share much in common with SVC, and/or that the distinction between SVCs and complementation is always that clear-cut (Winford, 1993; Noonan, 1985).

4. 2. Substrate influence in SVCs: A survey of the literature

This section discusses previous studies that used SVCs as evidence of substrate influence in the formation of creoles.

SVCs have figured prominently in discussions about creole formation. Advocates of the two most prominent theories of creole formation, the bioprogram or univeralist hypothesis (Bickerton, 1981, 1984; Byrne, 1987; Veenstra, 1996) and the substrate hypothesis (Boretzky, 1983; Lefebvre, 1989, McWhorter, 1992, 1993, 1997a; Migge, 1998) use SVCs as supporting evidence for their respective theories. Bickerton (1984), Byrne (1987), and Veenstra (1996) maintain that SVCs "are relatively new innovations, created out of contact-induced changes in the grammatical system of emerging creole languages" (Veenstra, 1996, p. 175) during first language acquisition. That is, SVCs emerged as the result of interaction between the innate blue-print for language of the human child and the input to the child's first language acquisition process. They assume that if the first language input is highly impoverished and consists mainly of verbs and nouns and includes only a few functional elements such as prepositions and

complementizers, SVCs have to emerge to express the (necessary) grammatical relations generally marked by functional heads such as prepositions and complementizers (Bickerton 1984, p. 179; Byrne 1987, p. 252).

Supporters of views which assume that the languages of the substrate population in the contact setting, such as West African languages in the case of Caribbean creoles, are primarily responsible for determining the properties of creole grammars (Boretzky, 1983; Lefebvre, 1989, McWhorter, 1992, 1993, 1997a; Migge, 1998) maintain that SVCs emerged in creoles as the result of substrate retention. That is, they argue that since the first languages of the creators of creoles already contained SVCs, they essentially just retained the abstract syntactic structure underlying them when they forged the creole. Given the focus of this study — determining the contribution of the substrate to the formation of the SPC — the present survey focuses on these latter types of studies which compared SVCs in a creole and its putative substrate to determine the latter's contribution in the formation of the creole.

Most of the studies comparing SVCs in creoles and their putative substrates were carried out in reaction to the claims made by the (early) supporters of the bioprogram or universalist hypothesis that SVCs in creoles emerged spontaneously (from the innate faculty of human language) due to the lack of functional elements in the creole's predecessor pidgin. In their efforts to invalidate universalist claims, researchers took primarily two types of approaches. First, they compared several kinds of SVCs in creoles and their substrates to show that creoles had the same types of SVCs as their substrate

(Boretzky, 1983; Huttar, 1981; McWhorter, 1992). Second, they compared one kind of SVC in the creole and its substrate in considerable detail to show that individual SVCs in creoles have the same syntactic and semantic structure as those in their substrate (Lefebvre 1989; Migge, 1998).

Huttar (1981) is one of the early studies investigating the relationship between different types of constructions (SVCs, cleft-focus constructions, comparative constructions)[3] in the Surinamese creoles (Sranan, Saramaccan, Ndyuka) and their putative substrate, the Kwa languages (Yoruba, Yatye, Ewe, Gwari). In order to control for the factor of language universals, he also includes languages from other parts of the world which could not have been inputs to the Surinamese creoles and which are not related to their Kwa substrate. These languages include the Sierra Leonian creole Krio, the Gur languages Vagala and Moore, the Benue-Congo languages Jukun and Efik, the Vietnamese language Chrau, the Papua New Guinean creole Tok Pisin, the Mande language Kpelle, the Chadic language Hausa.

His comparison focuses on the following types of SVCs: so-called directional SVCs, so-called dative/benefactive SVCs, so-called instrumental SVCs, and so-called comparative SVCs. He defines directional SVCs as those types of constructions in which the equivalent of either of the three verbs of motion, 'to go', 'to come', and 'to go away' are postposed to another VP and indicate the direction of the movement denoted by the

[3]It is curious that he does not include comparative constructions among SVCs since they also involve two verbs in a row and have generally been treated among SVCs by other researchers. I include them in my discussion.

preceding VP. Dative and benefactive SVCs are defined as those kinds of constructions in which the equivalent of the verb 'give' occurs "between a VP and a following dative or benefactive NP" (p. 296-297). Instrumental SVCs are characterized as "a VP consisting of 'take' + NP [which] precedes another VP and denotes an instrument " (Huttar, 1981, p. 300). Finally, comparative SVCs typically involve the use of verbs meaning 'to outdo' and/or 'to overtake, to pass by'.

He shows for each construction that the Surinamese creoles, specifically Ndyuka, and their putative substrate employ similar types of constructions: In both language groups they have similar kinds of surface organizations and employ similar types of (serial) items to perform similar functions. For directional SVCs he shows that, as in Ndyuka, both Krio and the Kwa language Yoruba postpose verbs of motion to other VPs to indicate directionality. In his opinion, this similarity does not necessarily constitute evidence of substrate influence from Kwa in the emergence of Ndyuka directional SVCs, however, since similar kinds of constructions are also found in the unrelated languages Jukun, Vagala, and Chrau. In the case of dative and benefactive SVCs he argues that the data do not provide clear evidence in favor of a Kwa origin in Ndyuka since dative and benefactive SVCs are not found in all Kwa languages: He shows that some Kwa languages use the verb meaning 'give' as a V_2 to introduce recipient (dative) and benefactive NPs as in Ndyuka while in others, such as Yoruba, a different type of construction is used to introduce a benefactive NP. Huttar (1981) takes the heterogeneity with respect to introducing recipient and benefactive NPs in the Kwa languages as evidence that they

could have not provided the (necessary) model for these SVCs in Ndyuka. In addition, he shows that this heterogeneity also prevails among unrelated languages and concludes that "such a syntactic feature could arise in different areas independently, perhaps as a result of some natural semantax (see Bickerton [1974])" (Huttar, 1981, p. 300). With respect to instrumental SVCs he shows that in both Kwa and Ndyuka instruments as well as commitative and manner NPs can be introduced using the serial item meaning 'take' as a main verb in the V_1 slot or constructions involving a preposition meaning 'with, and'. According to him, the constructions involving the preposition seem to be more frequently used among Ndyuka speakers. Nothing is said about the frequency of either of the two constructions in Kwa. In unrelated serializing languages these different semantics may be introduced using different prepositions (Tok Pisin) or 'take'-type SVCs to introduce an instrument and other types of constructions to introduce the other meanings (Chrau). He did not, however, supply any examples from these languages. Finally, with respect to comparative SVCs Huttar (1981) suggests that "the use of a verb meaning '(sur)pass' as a comparative marker is a fairly well known feature of the West African language area" (p. 317). He shows that 'surpass' is used in some Kwa languages such as Twi and Ewe, and in Efik but in a different manner in others such as Gwari. In unrelated languages (Hausa, Kpelle) similar types of verbs such as those meaning 'to exceed' are employed to express comparison. Huttar (1981) concludes that "if Efik is indeed a Kwa language as Welmers insists, then the hypothesis is supported that a Kwa substratum was an important source of this construction in Atlantic creoles" (p. 319). His overall conclusion is that the

(definite) similarities between SVCs in the Surinamese creoles and West African languages from the Kwa group of languages do not per se support the claim that the latter were a primary input to the formation of the former since similar types of SVCs using the same verbs are found in a great number of African and non-African languages. "The general conclusion, however, seems clear enough: that statements identifying the sources of SVC's with a specific language family of West Africa, e. g. Kwa, should be regarded with some skepticism until data from a wider sampling of languages are considered" (Huttar, 1981, p. 320).

Huttar (1981) is an important study on substrate influence in that it bases its conclusions on data drawn from several related creoles as well as African, and non-African languages. The study has, however, several serious short-comings which most likely skewed the results. First, he did not carefully select the relevant substrate languages on the basis of sociohistorical data on the origin of the Surinamese creoles. According to the data presented in Chapter Three the Gbe group of (Western) Kwa languages, which includes Ewe, and to a lesser degree the Kikongo group of languages were primary inputs to the formation of the Surinamese creoles. The (Eastern) Kwa languages Yoruba, Yatye, and Gwari which he primarily used in his comparison as representatives of the Kwa group of languages were not widely, if at all, represented during the formative period (1652-1720) of the SPC (see Chapter Three). Second, his analysis lacks analytical rigor. He simply juxtaposes similar structures from the various languages without analyzing any of them in any detail. Besides establishing surface similarities, he provides no details of

their syntactic properties such as the categorial status of the two verbs, the constituency of the different constructions, their general characteristics, and their distinction from related construction types such as subordination and coordination. Third, he does not present the whole range of SVCs but just arbitrarily selects a few of them for this analysis. Sebba (1987) and Veenstra (1996) show that there are a wide range of SVCs in Sranan and Saramaccan of which the few discussed by Huttar (1981) present just a small subset. Finally, his comparison is very lop-sided and therefore possibly less informative than intended: He provides more complete descriptions of the four SVCs in the Surinamese creoles than in any of the African or Asian languages. In addition, Huttar (1981) compared the four SVCs in the Surinamese creoles to those in different African languages, i.e. each construction is compared to partially different African languages which makes it difficult to determine whether the different African and Asian languages have the same range of constructions as the Surinamese creoles.

Boretzky (1983) devotes about 30 pages of his summary overview of structural similarities and differences between Atlantic creoles and West African languages to SVCs. His comparison focuses on five creoles, namely Sranan, Saramaccan, Krio, Haitian and Principe Creole, and on several West African languages from the Kwa group of languages (Yoruba, Ewe, Akan, Nupe, Bini, Igbo, Ijo), the Mande languages (Mandingo, Mandinka, Malinke, Bambara, Susu), the Kru languages (Grebo), the West Atlantic languages (Diola-Fogny) and the Gur group of languages (Gurenne). He selected these West African languages since available sociohistorical data suggested to him that they were part of the

substrate of these five creoles. He briefly discusses and gives examples of the following types of two verb constructions: verbal compounds, so-called 'take'-type SVCs, 'directional' SVCs, 'comparative' SVCs, "give'-type' SVCs, "say'-type' SVCs, constructions in which 'go' and 'come' occur as V_1 and express directionality or future tense, and auxiliary + main verb constructions.

He shows that creoles and West African languages have similar types of two-verb constructions: the verbs in the SVCs stand in similar semantic relationships to each other in the two language groups, the same verbs are used to express similar functions, and a similar constituent ordering occurs in both language groups. Creoles and West African languages, however, also differ from each other with respect to the following aspects: First, most creoles have no or very few true verb compounds while they are widely found in West African languages. Second, verbs meaning 'to make' as main verbs are generally not used as causative markers in West African languages but they are used in that function in creoles. The overwhelming amount of similarities that emerged between two verb constructions in creoles and West African languages suggest to Boretzky that SVCs in the creoles must be the result of 'transfer' from West African languages.

Boretzky (1983) bases his conclusions on a wide range of two verb constructions including SVCs and selected the West African languages on the basis of available sociohistorical data on the different creoles which make his conclusion much more convincing than those reached by Huttar (1981). Boretzky (1983), however, suffers from similar short-comings as Huttar (1981), but to his credit, he acknowledges these in his

study (pp. 189-91). Some of the short-comings are: First, he only compares surface similarities of SVCs in both the five creoles and their West African substrate. Second, he does not clearly define the structures he calls SVCs but includes structures which are clearly paratactic and hypotactic in nature. Third, his data sets are incomplete: He does not give examples for all constructions from all languages.

The most recent survey of SVCs in a creole and its substrate is McWhorter (1992, 1993, 1997a).[4] This study compares SVCs and related constructions in the Surinamese creole Saramaccan and a wide variety of languages (Akan, Ewe, Fon, Gã, Yoruba, Igbo, Edo, Ijo, Nupe, Gbari, Yatye) spoken in the area from which the creators of Saramaccan were presumably drawn to show that SVCs in Saramaccan are the result of transfer from West African languages. He presents data on five kinds of SVCs which he assumes to be the principal ones in these languages. They include 'take'-type constructions which introduce instrumental NPs, 'give'-type construction which introduce dative and benefactive NPs, a 'go/come'-type construction which "expresses movement to or from" (McWhorter, 1997a, p. 22), 'pass'-type constructions which express comparison, and 'finish'-type constructions which express completive aspect. His survey of the five SVCs in all the above mentioned languages leads him to conclude that "SM [Saramaccan] SVCs are indeed West African transfers" (McWhorter, 1997a, p. 24).

[4]The original publication is the one from 1992. The 1993 (a chapter in his dissertation) and 1997a (a chapter in his book) versions are minimally revised versions of the 1992 article. The present exposition is based on the 1997a version.

In order to substantiate this conclusion from the survey of SVCs, he provides the following types of additional evidences: First, he shows that "the SM [Saramaccan] SVCs are more similar in structure and behavior to the Kwa/Nigerian SVCs than to those in other language groups" (McWhorter, 1997a, p. 31) by surveying SVCs from Southeast Asian, Chinese, and Papua New Guinea languages. Second, he shows that substrates of similar composition have given rise to similar systems of SVCs in different creoles by surveying SVCs in different creoles and their substrates. Third, he shows that SVCs did not arise in Saramaccan as the result of its paucity of functional categories as suggested by Bickerton (1981, 1984) by surveying concepts expressed by prepositions in European languages in the grammar of Saramaccan. He derives the first type of evidence by showing that "serialization is a phenomenon which varies cross-linguistically, and that SM [Saramaccan] mirrors a configuration seen in two cases: Kwa/Nigerian and South Asia" (McWhorter, 1997a, p. 34). In the Papua New Guinea language Barai serialization takes place at the nucleus-level while in Kwa/Nigerian and Saramaccan it takes place at the core-level. For Chinese he shows that its SVCs have the same configuration as those in Kwa/Nigerian languages and Saramaccan: All three involve core-level SVCs. They differ, however, with respect to their respective types of SVCs. "Chinese uses serials to encode static positional relations, whereas SM [Saramaccan and Kwa] uses postposed nominals" (McWhorter, 1997a, p. 32). Finally, with respect to Southeast Asian languages he shows that they involve the same types of SVCs, the same type of core-level configuration, and the same verbs to encode certain concepts as in Kwa/Nigerian languages and Saramaccan.

The second type of evidence he establishes by showing that creoles with a wide range of SVCs, creoles with a limited range of SVCs, and creoles with no SVCs derive from substrates with a wide range of SVCs, with a limited range of SVCs, and with no SVCs respectively. For this he uses data from 14 creoles which have partially different substrates and superstrates. He demonstrates that the types of constructions used to express spatial and directional concepts, and other prepositional concepts in Saramaccan are also found in Kwa/Nigerian languages. He further shows that both use an extensive set of postposed nominals to express spatial concepts, SVCs to express directional concepts, prepositions-type items to express concepts such as 'with', location, possession. The different kinds of evidences suggest to him that "SVCs in SM [Saramaccan] are a result of transfer from the West African languages in its substrate" (McWhorter, 1997a, p. 49).

McWhorter (1997a) is an important improvement over previous studies since it selected the substrate languages on the basis of available sociohistorical evidence and is therefore able to narrow down the possible substrate languages to the Kwa group of languages which, based on the information given in Chapter Three, seems indeed to have been the language group to which the primary inputs to the formation of the SPC belonged. The information supplied in Chapter Three also shows, however, that this group of languages is still too broad a set and that it can still be narrowed down. In addition, he makes an effort to define SVCs and distinguish them from other types of constructions. However, like previous studies, McWhorter (1997a) lacks analytical rigor. First, he does not fully analyze any of the structures he discusses in any of the languages

included in his study. His comparisons are based on surface similarities.[5] Second, he compares partial data sets: First, he arbitrarily selects six SVCs from among the total set of SVCs in Saramaccan (see Veenstra, 1996, p. 93) and without any justification declares them to be canonical in these languages. Second, he does not supply examples for each type of SVC in each substrate language (due to lack of data). Third, his data are drawn from different sources and time periods. The Saramaccan data come from Byrne (1987) and were collected at around that time period, while the data for the African languages come from the 19th century, the early 20th century and the period 1960/1970.

The discussion of the above studies then shows that no comprehensive comparison of the possible types of SVCs in a creole and its substrate exists. Such a comparison, however, could serve as important evidence for establishing the role the substrate, or a

[5]McWhorter (1997a) anticipated this criticism and takes it up on pages 48 to 49. He essentially argues that the preoccupation with surface phenomena is appropriate since it is futile to expect more than surface similarities between SVCs in a creole and its substrate. In his opinion, preoccupation with detail similarities would entail that substrate influence requires "the pristine transfer of rules, which it simply does not: transfer--into both reduced and regular languages--involves distortions of said rules via simplification and cross-linguistic compromise." McWhorters entailment does not necessarily hold, as he says himself. But to argue without proof that only surface aspects of constructions can be transferred is also a doubtful, since as shown in Migge (1998), detailed similarities can be preserved extremely well over time.

He goes on to argue that "if the syntactic behavior of SVCs in SM [Saramaccan] and all eleven of the cited West African languages were found to correspond perfectly, this would be nothing less than unusual, and would be better evidence for divine intervention than of substrate influence as it occurs in the actual world." It is not necessary that there be exact correspondences between SVCs in all twelve Kwa languages and Saramaccan since not all of them were inputs to the formation of Saramaccan. Only correspondences between the SVCs in Saramaccan and its actual inputs are of interest; and the latter can only be determined via in-depth socio-historical research and linguistic comparisons.

particular substrate language or language group played in the formation of this area of grammar in a creole or in creoles in general.

A different approach to determining substrate influence to SVCs is taken by Lefebvre (1989) who analyzes 'take'-type SVCs or instrumental SVCs in detail in Haitian and its putative substrate, the Gbe variety Fon, to show that instrumental SVCs in Haitian are subject to the same semantic restrictions as in Fon. These close semantic similarities between instrumental SVCs in Haitian and Fon she takes as evidence that instrumental (and by extension other SVCs) in Haitian are modeled on SVCs in Fon.

In her analysis she restricts her attention to one type of instrumental SVC which involves the verb *koupe* meaning 'cut' as a main verb in the V_2 position. *Koupe* as V_2 in Haitian can have a 'change of location' meaning and a 'change of state' interpretation. She shows that *koupe* may only introduce its instrument with the serial item *pran* 'take'(19) if it has a 'change of location' meaning. In constructions in which *koupe* has a 'change of state' semantics it cannot introduce its instrument with the serial item *pran* 'take' (20a). In such constructions the instrument is introduced by the preposition *ak* 'with' (20b).

(19) jan pran rach la koupe tapi a. (Haitian)
John take ax the cut carpet a
'John cut the carpet with an ax.'

(20) a. *jan pran kouto koupe pen an. (Haitian)
John take knife cut bread the
'John cut the bread with a knife.'

b. jan koupe pen an ak kouto.
John cut bread the with knife
'John cut the bread with knife.'

Lefebvre (1989) suggests that both the dual semantics of *koupe* and the different syntactic behavior associated with 'change of location' and 'change of state' uses of the verb *koupe* and 'change of location' and 'change of state' verbs in Haitian in general are derived from Fon where the lexical counterparts of *koupe* show the same dual semantics and the same difference in syntactic behavior.

Lefebvre (1989) is in many ways an important addition to the other studies on substrate influence in the formation of SVCs in creoles since it backs up its choice of substrate language on the basis of available sociohistorical data, and unlike previous studies thoroughly analyzes the SVC under investigation, and does not stop at surface similarities. In addition, she formalizes the findings from her analysis to make them more accessible for comparative purposes, and uses equivalent data sets from the same time period. The only negative aspects of her study are that she only covers a very restricted and possibly unrepresentative range of SVCs, and that she does not present a parallel analysis of instrumental SVCs in the two languages but primarily presents examples from Haitian and only lists the relevant verbs from Fon.

Finally, Migge (1998) investigates 'give'-type SVCs in the Surinamese creoles, specifically Ndyuka, the Gbe group of languages, and Akan to show that this kind of SVC

in Ndyuka patterns most closely with those in Gbe. This suggests to her that 'give'-type SVCs in Ndyuka were modeled in those of Gbe rather than on those in Akan.

In her study, she catalogs a wide (and possibly exhaustive, but see below) range of functions that 'give' NP phrases can perform with a wide range of verbal heads in Ndyuka and compares them to varieties of Gbe and Akan. The comparison of the semantic functions of 'give' NP phrases shows that these constructions perform the same functions in Ndyuka and Gbe, and that their range of functions is more restricted in Akan. The comparison of syntactic properties of 'give'-type SVCs shows that in Ndyuka and Gbe 'give' has non-verbal status and is (optionally) selected by V_1. In Akan 'give' still shows partially verb behavior. These facts taken together suggest to her that Ndyuka (or its precursor's) SVCs were modeled on those from Gbe.

Migge (1998) selected the substrate languages on the basis of available sociohistorical data, gave a general definition of the kinds of constructions she considers to be SVCs, and analyzed the structure of 'give'-type SVCs in some detail. Her study has, however, several important short-comings: First, she did not consistently determine the semantic relationship between V_1 and the 'give' NP phrase and the constituency structure of the whole SVC using syntactic and semantic tests. She only determined the semantics and categorial status of the 'give' NP phrase using syntactic and semantic tests. Second, she only investigated a relatively restricted area of grammar which might not turn out to be representative of the entire grammar of Ndyuka.

The survey of studies which compare SVCs in a creole and its substrate suggest that SVCs emerged in creoles as the result of substrate influence. However, in order to make a convincing case for this hypothesis, it is necessary to compare both the whole range of SVCs and their exact syntactic and semantic properties in each language.

4. 3. Description and comparison of SVCs in Ndyuka and Gbe

This section presents and compares the SVCs found in my Ndyuka and Gbe data. The aim of this section is to investigate the semantic similarities and differences between SVCs in Ndyuka and Gbe to determine the role of the substrate in the formation of this area of grammar in the SPC.

In the following discussion I refer to the serial verb and the serial VP as the serial item or element and the serial phrase respectively in order not to prejudice the categorial status of these items. I discuss their categorial status in section 4. 4. 2.

I roughly subdivided the SVCs in my data into three broad groups: (i) motion/change of location-type SVCs, (ii) thematic-role-introducing SVCs, and (iii) resultative SVCs. In motion/change of location-type SVCs the serial phrase indicates the direction, the origin, the limit etc. of a motion-related event. In thematic-role-introducing SVCs the serial phrase introduces thematic roles such as a benefactive, source, experiencer etc. of a proposition. In resultative SVCs the serial phrase introduces the result or limit of some action. Below I discuss the elements from each broad group separately.

4. 3. 1. Motion/change of location-type SVCs

The group of motion/change of location-type SVCs includes seven different types of constructions whose verbal heads are motion/change of location-denoting verbs. The serial phrases are headed by serial items which are derived from the following motion/change of location-denoting verbs 'to go (away), to leave', 'to come', 'to go around', 'to pass', 'to come from', 'to arrive', 'to put' in both Ndyuka and Gbe. When functioning as main verbs these verbs are fully verbal in Ndyuka and Gbe: They can occur as the only verbs of a sentence, they can take a subject, they can be marked for tense, aspect, mood, and negation (21), and they can also be predicate clefted (22). Predicate cleft is a positive verbhood test in these languages. In predicate cleft a verb under focus is copied to the front of the sentence preceding (Gbe) or following (Ndyuka) the focus marker.

(21) a. den an be mu go ape. (Ndyuka, PM17a)
they NEG PAST OBL go there
'They shouldn't have gone there.'

b. mí yí nɔ kutɔnu. (Gbe, Aja3)
you (pl) go HAB Cotonou
'You habitually go to Cotonou.'

(22) a. (a) go den an be mu go ape. (Ndyuka)
FOC go they NEG PAST OBL go there
'They shouldn't have GONE there.'

b. yi yi mi yi nɔ kutɔnu. (Gbe, Aja)

go FOC you (pl) go HAB Cotonou

'You habitually GO to Cotonou.'

In their serial item function the above verbs introduce the direction, the origin, or the limit or endpoint of the movement denoted by the verbal head of the construction. In Table 4.1 I summarize the semantic properties of the different motion/change of location-denoting SVCs in Ndyuka and Gbe.

head of serial phrase	gloss (as a main verb)	semantics of head of serial phrase	semantics of the serial phrase	semantic head of entire propositon	general semantic relationship between head of proposition and serial phrase
GO/GWE (ND)[1] YI_1 (A, M, W) $SɔN_1$ (X)/ YI dA (A, W) YI TɔN (M)	go, leave	direction away from point of reference	direction away from point of reference (and towards location)	any motion denoting verb	serial item indicates that motion denoted by head of proposition is in direction away from speaker's point of reference
KON (ND) VA (A, W) WA (M, X)	come, arrive	direction towards point of reference of speaker	direction towards location of point of reference	any motion denoting verb	serial item indicates that motion denoted by head of proposition is in direction towards speaker's point of reference
LONTU (ND) TRɔdO (A, W, X)	round, go around	around	around location and in location	any motion denoting verb	serial item indicates that motion denoted by head of proposition is around some location or in location
$PASA_1$ (ND) TO_1 (A, W), $GBɔN_1$ (M), $ZɔN_1$ (X)	pass	direction past, through	direction past or through location	any motion denoting verb	serial item indicates that motion denoted by head of proposition is past or through some location

Table 4. 1 (continued)

Table 4. 1: The Semantic Properties of Motion/Change of Location-Type SVCs in Ndyuka and Gbe .

Table 4. 1 (continued)

$KOMOTO_1$ (ND) SO_1 (A) SIN_1 (M) CO_1 (W) LE_1 (X)	originate from, come/out of/from	origin	location of origin	any motion denoting verb	serial item introduces locational origin of motion denoted by head of proposition
$KOMOTO_2$ (ND) SO_2 (A) SIN_2 (M) CO_3 (W) LE_2 (X)	as above	origin	origin of entity	noun	serial item introduces locational origin of some entity
SO_3 (A) SIN_3 (M) CO_3 (W) LE_3 (X)	as above	origin	origin in time	verb	serial item introduces temporal origin of some event
DOO_1 (ND) DO_1 (A) $ḍO_1$ (M, W, X)	arrive at, reach	indicates endpoint	(location of) endpoint	any motion (and activity denoting verb in Ndyuka)	serial item indicates endpoint or limit of motion or activity denoted by head of proposition
DOO_2 (ND) DO_2 (A) $ḍO_2$ (M, W, X)	as above	indicates endpoint	temporal endpoint	any action verb	serial item indicates temporal endpoint of action denoted by head of proposition

Table 4. 1 (continued)

Table 4. 1 (continued)

POTI (ND) DO (A, X) $ḍO_1$ (M, W)	put, deposit	indicates that some entity is deposited	(location where) entity is deposited	any change of location denoting verb	serial item indicates that entity filling semantic role of head is deposited (in some location)

[1]A: AjaGbe, M: MaxiGbe, ND: Ndyuka, W: WaciGbe, X: XwelaGbe.

Table 4.1 shows that all varieties of Ndyuka and Gbe have a SVC whose serial phrase is headed by an item derived from a main verb meaning 'to go away or leave a point of reference', *go* in the Ndyuka varieties, and *yi* (A, M, W) and *sɔn* (X) in the Gbe varieties. As main verbs they may take a LOCP which indicates the location towards which the motion denoted by 'go' takes place.[6] This location is, however, distinct from the point of reference of the speaker. As serial items they denote that the motion denoted by the verb preceding them is away from the point of reference of the speaker and towards some other location which may be expressed by the LOCP following 'to go'.

(23) a. nounou den na man post i go a
now they NEG POT send you SI LOC
foto moo. (Ndyuka, PM17b)
Paramaribo more
'Now they (the police) can't send you away to Paramaribo any more.'

b. yɛ á mɔ̃ ɔ̃ trɔ̃ ɛ́ hĩn yĭ axwɛ́.
he FUT say you return it carry SI house
'He will tell you to bring it back to the house.' (Gbe, Aja2)

[6]In Ndyuka a LOCP may consist of the general location marker *(n)a* followed either by a PP (*ii a so* 'in the house'), a POSTP (*a osu tapu* 'on the house'), or by a locative NP (*a liba* 'the river'). It may also just consist of a locative adverb (*ape* 'there'). In Gbe a LOCP is either headed by a general location marker--*le* (A), *ɖɯ/ɖo* (M), *lə* (W), and *ɖe* (X)--followed by a NP (*osi lɔ* (X) 'the house') or a POSTP (*aɸə a mə* (W) 'in the house'). It may also just consists of a POSTP, a NP, or a locative adverb (*fima* (W) 'there').

If no LOCP follows 'go' and no location is implied in the discourse context, 'go' indicates that the motion denoted by the verb preceding it is away from the point of reference implied in the discourse (24).

(24) a. mo teki mi nefi tya go oo. (Ndyuka, PM2b)
I-FUT take my knife carry SI EMPH
'I'll take my knife away!'

b. e fĩfĩ saki ɔ yi. (Gbe, Maxi)
he push bag DET go
'He pushed the bag away.'

In Ndyuka, *go* may be substituted by *gwe* meaning 'to go away, to leave' as a main verb.

(25) a. den kon teki en tya gwe na den konde.
they come take him carry SI LOC their village
'They came and took him away to their village.' (Ndyuka, PM11a)

b. neen mi tyai en gwe. (Ndyuka, OK4b)
then I carry it SI
'Then I brought it away.'

My data show, however, that *go* functions much more frequently as a serial item overall, and that *gwe* is more frequently found as a serial item in constructions in which the

location towards which the motion takes place is left unspecified. In the Gbe varieties *yi* as a serial item may be substituted by *yi tɔ̃* (M) and *yi ɖa* (A, W) 'to go away' (26).[7]

(26) a. e ɖɔ̃ ɖɔkpo lɔ yi ɖa. (Gbe, Aja)
he drag bag DET SI away
'He dragged the bag away.'

b. e ɖɔ̃ ɖɔkpo lɔ yi axo mɛ ɖa.
he drag bag DET SI house in away
'He dragged the bag away to the house.'

My informants suggest, however, that *yi tɔ̃* (M) and *yi ɖa* (A, W), like *gwe* in Ndyuka, are preferably used without a LOCP that indicates the location.

In both Ndyuka and Gbe there are also SVCs whose serial phrase is headed by an item derived from a main verb meaning 'to come to or to arrive at', *kon* in the Ndyuka varieties, and *va* (A, W) and *wa* (W, X) in the Gbe varieties. As main verbs they may take a LOCP which indicates the location towards which the motion denoted by 'come' takes place. This location is synonymous with the point of reference of the speaker. As serial items they denote that the motion denoted by the verb preceding them is towards the point of reference of the speaker. The location of the point of reference of the speaker may be overtly expressed by the LOCP following 'come' (27).

[7]My Xwela data does not include such an item. It seems that *sɔn* 'go' in Xwela is used in both functions.

(27) a. a an mu poti futu kon a pe mi de.
she NEG OBL put foot SI LOC place I COP
'She shouldn't come to where I am.' (Ndyuka, PM7b)

b. yɛxhe gɔ wa sĭ mɛ. (Gbe, Xwela2)
fetish return come house in
'The fetish returned to the (inside) of the house.'

If no LOCP follows 'come' it is understood that the motion denoted by the verb preceding it is to the (discourse implied) location of the speakers (28).

(28) a. te a puu da a o tyai en kon.
when she pull then she FUT carry it come
'When she harvests (the cassava), she'll bring it (here).'
(Ndyuka, PM18)

b. mĭ cɔ fɔ́vi má asaflĭ va. (Gbe, Waci1)
you take Fovi that key come
'Bring Fovi's key (here).'

Ndyuka and Gbe also have a SVC whose serial phrase is headed by an item derived from a main verb meaning 'to go around, to surround, to round a point of reference', *lontu* in the Ndyuka varieties, and *trɔɖo* (A, W, X) in the Gbe varieties.[8] They may optionally take a NP which indicates the location around which the movement takes place

[8]I do not have data from Maxi.

or a LOCP which indicates the location in which the circular motion takes place. As serial items they denote that the path of the motion denoted by the motion verb preceding them is around some location (29a&c) or takes place in a particular location which may be specified by a XP following them (29b&d).

(29) a. a be waka lontu mi osu. (Ndyuka)
she PAST walk SI my house
'She walked around my house.'

b. a lon lontu a ini a konde.
she run SI LOC in DET (sg) village
'She ran around in the village.'

c. é mɔ́ yi vɛvɛ mɔ́ trɔ́ɖɔ́ nú lɔ
they PAST take food PAST SI thing DET
'They put the food around the thing.' (Gbe, Xwela1)

d. ɔ́ ku əβu trɔɖɔ́ ɔ́du a mə. (Gbe, Waci)
he drive car SI village DET in
'He drove the car around in the village.'

A verb meaning 'to pass', *pasa* in the Ndyuka varieties, and *to* (A, W), *gbɔn* (M), *zɔn* (X) in the Gbe varieties may also function as a serial item in Ndyuka and Gbe. In their serial item function they denote that the path or the direction of the motion denoted by the verb preceding them is past (30a&c) or through, over, under etc. some location

(30b&d). As serial items and as main verbs they take either a NP which indicates the location that is being passed or a LOCP which indicates that the motion is through, over, under etc. the location.

(30) a. a pali pasa a tabiki. (Ndyuka)
she paddle SI DET(sg) island
'She paddled past the island.'

b. yo boo pasa a ini a ze.
you-FUT drill SI LOC in DET (sg) sea
'You'll drill through the ground of the sea.' (Ndyuka, PM7a)

c. yi sɔ̃ osi mɛ zɔ̃ nuka lɔ. (Gbe, Xwela)
I go house in SI forest the
'I went to the house past the forest.'

d. yé cán yi gabon tó afɔ mɔ lɔ́ fímá.
he also go Gabon SI foot path LOC there
'He also went to Gabon through the footpath there.' (Gbe, Waci3)

A verb meaning 'to come from, out of or to leave from', *komoto* in the Ndyuka varieties, and *so* (A), *gosin* (M), *co* (W), and *lɛ* (X) in the Gbe varieties, may also function as a serial item. As a main verb it takes a LOCP which indicates the location from which the motion it denotes originates. As a serial item it typically combines with

all kinds of motion denoting verbs and introduces the locational origin of the motion denoted by the motion verbs (31a&b).

(31) a. den wai komoto na a se fu gadu.
they move SI LOC DET(sg) side of god
'They left god's side.' (Ndyuka, OK2a)

b. e ɖwĩ so mɔ do mɛ. (Gbe, Aja)
he drag-it SI street middle in
'He dragged it from the street.'

In Gbe 'come from' can also introduce the temporal origin of some action denoted by the verb following or preceding it (32a&b). This meaning does not seem to be available for *komoto* in Ndyuka (32c), however.

(32) a. lɛ ɖe vikpevu mɛ kpɔ̃ okũ mɔ̃ gba.
SI LOC child in ? eye PAST break
'Since her childhood she's been blind.' (Gbe, Xwela)

b. bɛ́ sĩn ɛ̃hɔ̃ mɛ̃ dĩ ɔ̃ lɛ̃ ó nã̄
starting SI today in now CP how you FUT
nɔ̃ blɔ́ gbɛ̃-ɛ̃ ɖĭ-ye. (Gbe, Maxi1)
HAB make ? this-is
'Starting from today now, how will you continue to do things?'

c. ?*a yali di pasa mi be wooko komoto dii
the year REL pass I PAST work SI three
mun fu baka yali go doo neigin mun.
month for back year go reach nine month
'Last year I worked from March to September.' (Ndyuka)

Note that in Maxigbe the verb *gosin* 'leave from' never has this phonological shape when it heads a serial phrase. As a serial phrase it always appears as *sin* (32b). It seems that the grammaticalization of this item has been accompanied by a process of phonological change as well.

In both Ndyuka and Gbe, 'come from' may also follow a noun (33). In these constructions it expresses the origin of some entity.

(33) a. we di ala sama dede komoto na bee.
EMPH when all person die SI LOC belly
'When all the people from the clan have died.' (Ndyuka, OK4a)

b. ɛ̌ ɖɔ ɛ̌ nɔ̃vĭ tɔ̃ kʊ́ sĩn kɔ̃dĭvūa.
they say REL brother POSS die from Ivory Coast
'They said when their brother from Ivory Coast died.' (Gbe, Maxi1)

According to Hünnemeyer (1985, p. 72), in some varieties of Vhegbe the phrase headed by 'come from' may also introduce a human source (34). My informants for other Gbe varieties and my Ndyuka informants, however, rejected this reading.

(34) é xɔ ga lá tsó dɔmemegã lá gbɔ.

she receive money the SI director the side

'She received the money from the director.' (Gbe, Ewe)

Both Ndyuka and Gbe also have a SVC headed by a verb meaning 'to arrive at, to reach', *doo* in the Ndyuka varieties, and *do* (A) and *ɖo* (M, W, X) in the Gbe varieties. As main verbs they take a LOCP or a locational NP complement which indicates the location of the arrival. When they head a serial phrase they introduce the endpoint or limit of the motion denoted by the verb preceding them. The location of the limit or endpoint may be expressed by the LOCP following them.

(35) a. di mi dongo doo bilo saaa!

REL I go.down.stream SI below IDEO

'When I went down stream directly to the coast.' (Ndyuka, PM17a)

b. e só trɔ . . dō shĭ. (Gbe, Aja)

she take return SI place

'She returns to the place/here.'

In both Ndyuka and Gbe phrases headed by 'arrive' often appear following phrases headed by 'to go' or 'to come', which indicate the direction of the motion denoted by the main verb of the proposition (36).

(36) a. fosi Esilini e pinapina puu kon doo.

first Esilini IMP suffersuffer pull SI SI

'At first Esilini was barely able to paddle here.' (Ndyuka, PM17a)

b. yó gbɔ va ɖó kōmə. (Gbe, Waci1)

they return SI SI Kome

'They returned to Kome.'

If no XP follows 'arrive', it indicates that the motion denoted by the verb preceding it has been completed (36a).

In Ndyuka 'arrive' indicates the limit or endpoint of all kinds of action verbs (37). It is not clear to me whether this usage of 'arrive' is also widespread in the Gbe varieties since my data does not include such tokens.[9]

(37) a lel' en doo. (Ndyuka)

she learn it SI

'She learned the whole thing.'

'arrive' can also indicate the temporal endpoint of some action or state denoted by the verb preceding it (38).

(38) a. a mma dati no be mu libi seefi doo

DET(sg) mother that NEG PAST OBL live self SI

den ten di a doo ya. (Ndyuka, OK3b)

DET(pl) time REL she reach here

[9]My Waci informant indicated that such constructions exist in Waci.

(i) e ŋlɔn nu ɖo. (Waci)

he write thing arrive

'He wrote the whole thing.'

'That woman should not even have lived up until this time.'

b. a oli en doo den ten de. (Ndyuka, OK3b)

she hold it SI DET(pl) time there

'She managed to survive until those times.'

c. e kū hū do lé egbɛ. (Gbe, Aja)

he drive car SI LOC today

'He drove the car until today.'

Finally, all varieties of Ndyuka and Gbe have a SVCs whose serial phrase is headed by an item derived from a main verb meaning 'to put, to deposit', *poti* in the Ndyuka varieties, and *do* (A, X) and *ɖo* (M, W) in the Gbe varieties. [10] As main verbs they take a NP which denotes the entity that is being deposited and optionally also a LOCP which indicates the location where the entity is deposited. In their serial item function they indicate the endpoint of some movement or change of location of some entity, the NP object of the verb preceding them. That is, they indicate that the entity has been deposited at some location after having been moved. The location where the entity is deposited is indicated by the LOCP which may follow 'put'. No (direct) object NP may follow 'put' in its serial item function.

[10]In some Gbe varieites these items seem to be homophonous with the items meaning 'to arrive'. It is not clear to me if they have the same origin. My informants claimed that they were different.

(39) a. ne a saka a supun poti de.

then he lower DET(sg) spoon SI there

'Then he lowered the spoon to there.' (Ndyuka, PM17a)

b. é kɔn tɛ́tɛ́ do hún mɛ. (Gbe, Xwela2)

he pour all SI boat in

'He poured all of it in the boat.'

The above description and comparison of motion/change of location-type SVCs in Ndyuka and Gbe showed that both languages have the same range of such constructions and the individual constructions have the same structure: They involve serial items derived from the same kinds of main verbs, they are followed by similar types of XPs, and they perform similar types of functions; they all modify the movement expressed by the main verb of the construction. There were only two differences between Ndyuka and Gbe: First, in Gbe the serial item 'come from' can also introduce the temporal origin of some action or state while in Ndyuka it cannot. Second, in Ndyuka the serial item 'arrive' can introduce the endpoint of any activity denoting verb but it is not clear at this point how widespread this is in the Gbe varieties. The close and extensive similarities between these constructions in Ndyuka and Gbe suggest that the motion/change of location-type SVCs in the SPC were most likely modeled on those in Gbe.

4. 3. 2. Thematic-Role-introducing SVCs

The group of thematic-role-introducing-type SVCs includes six different constructions in Ndyuka and seven in Gbe. The six constructions which are shared between Ndyuka and Gbe are highly similar to each other: They involve the same kinds of serial items which are derived from the following verbs 'to give', 'to take', 'to carry, to accompany', 'to say', 'to outdo', 'to overtake', in both Ndyuka and Gbe. In Gbe there is one additional serial item: 'to pass'. When functioning as main verbs these verbs are fully verbal in both Ndyuka and Gbe. In their serial item function they introduce various thematic roles such as the experiencer, the source, the standard of comparison etc. of the verbal head of the construction. In Table 4. 2 I summarize the semantic properties of the SVCs in Ndyuka and Gbe belonging to this group.

head of serial phrase	gloss (as a main verb)	semantics of head of serial phrase	semantics of the serial phrase	semantic head of entire propositon	general semantic relationship between head of proposition and serial phrase
TO_2 (?A^1, W)[2] GBON_2 (M) ZON_2 (X)	as above	mediation	mediation by person, or concept	any (transfer) denoting verb	serial item introduces mediator and means of proposition denoted by head
GI_1 (ND) NA_1 (A, M, W, X)	give, present,	introduces recipient	recipient	tansfer or utterance denoting verbs	serial item indroduces recipient of proposition denoted by head
GI_2 (ND) NA_2 (A, M, W, X)	as above	introduces chargee	chargee	verbs denoting states resulting from actions	serial item indroduces chargee of proposition denoted by head
GI_3 (ND) NA_3 (A, M, W, X)	as above	introduces beneficiary	beneficiary	any verb	serial item indroduces beneficiary of proposition denoted by head
GI_4 (ND) NA_4 (A, M, W, X)	as above	introduces substitute	substitute	any verb	serial item indroduces substitute role of proposition denoted by head
GI_5 (ND) NA_5 (A, M, W, X)	as above	introduces experiencer	experiencer	state denoting verbs	serial item indroduces experiencer of proposition denoted by head

Table 4. 2 (continued)

Table 4. 2: The semantic properties of thematic role-introducing SVCs in Ndyuka and Gbe

Table 4. 2 (continued)

GI_6 (ND) NA_6 (A, M, W, X)	as above	introduces source	reason, source	some intrans., trans. verbs	serial item indroduces source of proposition denoted by head
GI_7 (ND) NA_7 (A, M, W, X)	as above	introduces theme	theme	some verbs of perception and untterance	serial item indroduces theme of proposition denoted by head
GI_8 (ND) NA_8 (A, M, W, X)	as above	introduces theme	theme	noun	serial item indroduces theme of proposition denoted by noun
GI_9 (ND) NA_9 (A, M, W, X)	as above	introduces purpose	purpose	any verb	serial item indroduces purpose of proposition denoted by head
GI_{10} (ND) NA_{10} (A, M, W, X)	as above	introduces possessor	possessor	N	serial item indroduces possessor of entity denoted by head
TEKI (ND) Sɔ (A, M) Cɔ, Xɔ (W) YI, ZE (X)	take, grab	activity is actively or intentionally carried out	activity on/with person or object is actively or intentionally carried out	verbs denoting change of possesion, state, location	serial item indicates that the activity denoted by the verb following it is actively and intentionally carried out on/with some entity

Table 4. 2 (continued)

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Table 4. 2 (continued)

TYA (ND) HEN (A, M, X) HəN (W)	carry, hold	activity is not necessarily actively or intentionally carried out	activity is not necessarily actively or intentionally carried out on object	verbs denoting change of location, some change of state verbs	serial item indicates that the activity denoted by the verb following it is not necessarily actively and intentionally carried out on some object
$TAKI_1$ (ND) $Mɔ_1$ (A) $dɔ_1$ (M) BE_1 (W), FAN_1 (X)	say, speak	introduces perception, cognition, or utterance	what is being perceived, cognized or uttered	perception, cognition, utterance verbs	serial item indroduces perception, cognition, or utterance of perception, cognition, or utterance verbs
$TAKI_2$ (ND) $Mɔ_2$ (A) $dɔ_2$ (M) BE_2 (W) FAN_2 (X)	as above	introduces content, reason	reason, content of action	activity verbs	serial item indroduces content or reason of activity denoted by head
$TAKI_3$ (ND) $Mɔ_3$ (A) $dɔ_3$ (M) BE_3 (W), FAN_3 (X)	as above	introduces content	content of entity	noun	serial item indroduces content of entity denoted by head

Table 4. 2 (continued)

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Table 4. 2 (continued)

MOO_1 (ND) WU_1 (A) HU $(Kan)_1$ (M), U_1 (W) H/WU $(GAN)_1$ (X)	outdo	comparison	introduces standard of comparison	any verb	serial item indicates standard of comparison and head of proposition indicates property (and element) of comparison
MOO_2 (ND) WU_2 (A) HU $(Kan)_2$ (M) U_2 (W) H/WU $(GAN)_2$ (X)	as above	comparison	marks (implied) comparison	any verb	serial item indicates comparison, head indicates property, subject indicates element of comparison
$PASA_2$ (ND) ZE (M), NYA (X) TO (W)[1]	'overtake', 'exceede'	competitive comparison	standard of competitive comparison	any transitive or ditransitive verb	serial item indicates standard of competitive comparison and head of proposition indicates property (and element) of comparison
$PASA_3$ (ND)	as above	excessiveness	excessiveness	any property denoting verb	serial item indicates excessiveness of property denoted by verbal head

[1]I do not have data from Adja for this.

[2]A: AjaGbe, M: MaxiGbe, ND: Ndyuka, W: WaciGbe, X: XwelaGbe.

The only thematic-role-introducing serial item that is only found in Gbe and *not* in Ndyuka is the first serial item in Table 4. 2 which is derived from the main verb meaning 'to pass', *to* in Waci, *gbɔn* in Maxi, and *zɔn* in Xwela. As a thematic-role-introducing serial item it introduces a mediator (40a) and a means (40b) role.[11]

(40) a. mə xɔ ga to tɔ nyɛ dʒi. (Gbe, Waci)
I receive money SI father my top
'I received the money through my father.'

b. e wli adʒotɔ lɔ zɔ̃ tɔvi lɛ eyo lɔ do.
he catch thief DET SI citizen PL their hand ?
'he caught the thief with the help of the citizens.' (Gbe, Xwela)

The means role may also be introduced by the preposition 'with' (41), however.

(41) a. e wli adʒotɔ lɔ gɔdo tɔvi lɛ eyo lɔ do.
he catch thief DET with citizen PL their hand ?
'They caught the thief with the help of the citizens.' (Gbe, Xwela)

As illustrated in Table 4. 2, all varieties of Ndyuka and Gbe have a SVC whose serial phrase is headed by an item derived from a main verb meaning 'to give, to present', *gi* in the Ndyuka varieties and *na* in the Gbe varieties. As main verbs they are specified for a theme and a recipient role in their semantics. In their serial item function they introduce various thematic roles

[11]I do not have data for Aja.

of the proposition headed by the verb preceding them. One of the roles 'give' may introduce is the recipient role of transitive transfer (42) and utterance denoting verbs (43).

(42) a. m be o seli en gi J. tok. (Ndyuka, PM18)
I PAST FUT sell it SI J. DM
'I would have sold it to J.!'

b. mɛ́ lɔ do wɛn ná mǐ a? (Gbe, Xwela2)
person DET put message SI you (pl) QP
'Who gave you the message?

(43) a. da i mu kali a nombu gi en.
then you OBL call DET(sg) number SI him
'Then you have to tell him the (phone) number.' (Ndyuka, PM12b)

b. dā dá nū nyɔ̄ nɔ̄ vǐ ō. (Gbe, Aja2)
father NEG say thing SI child NEG
'The father doesn't say anything to the child.'

If the transfer involves motion the serial phrase headed by 'give' generally occurs following a serial phrase headed by 'go' or 'come' which indicates the path or direction of the motion denoted by the main verb of the proposition (44).

(44) a. a o tya wan pikin kawaka kon gi i.
she FUT carry DET little cassava SI SI you
'She'll bring you a little bit of processed cassava.' (Ndyuka, OK3a)

b. ɛ̌ nɔ̄ hɛ̄ ayikū wá nū we kakakǎ.
they HAB carry bean SI SI you IDEO
'They usually bring you a lot of beans.' (Gbe, Maxi2)

A subtype of the recipient or goal reading of 'give' is what I call the 'chargee'-reading of 'give'. If the verb preceding 'give' is an intransitively used change of state verb the referent of the NP following 'give' is interpreted as the person in charge of the referent of the subject NP of the verb preceding 'give' (45). The chargee is not, however, necessarily actively responsible for the state of the referent of the subject NP.

(45) a. a bata booko gi a papa. (Ndyuka)
DET(sg) bottle broke SI DET(sg) father
'The bottle broke when it was in the charge of the old man.'

b. ogo lɔ gba na. (Gbe, Xwela)
bottle DET break SI-me
'The bottle broke when it was in my charge.'

When 'give' occurs following all kinds of activity verbs the referent of the NP following it is interpreted as the beneficiary or metaphorical recipient of the action expressed by the verb preceding it (Winford, 1993, p. 271) (46).

(46) a. on baafu ye kii gi a uman so?
QP meat you-PROG kill SI DET(sg) woman like that

'What animal are you killing for the woman's benefit like that?'

(Ndyuka, PM11b)

b. wa tú dotɔ́ xɔ́ nə mi. (Gbe, Waci2)

they-FUT build doctor house SI us

'They'll build a hospital for us.'

The NP introduced by *gi* and *na* can also be interpreted as having a substitute role when it is juxtaposed with activity verbs. In this reading the action denoted by the verb preceding 'give' is performed by its subject in place of the referent of the NP following 'give' (47) (Winford, 1993, p. 272). Given the right context, the 'substitutive reading' may also be ambiguous with a 'benefactive reading' as indicated by the B readings in (47).

(47) a. a kon sipoiti en gi en. (Ndyuka, OK4b)

he come spray it SI him

A: 'He came to spray it in his place.'

B: 'He came to spray it for his benefit.'

b. nyã cẽ ũ nã yĩ alɔ nu wẽ. (Gbe, Maxi1)

friend my I FUT take hand SI you (sg)

A: 'My friend, I will help in your place.'

B: 'My friend, I will help for your benefit.'

In constructions in which the verb preceding 'give' expresses a state, the NP following 'give' is interpreted as the experiencer of that state (48).

(48) a. a an be switi gi en? (Ndyuka, PM7b)

it NEG PAST sweet SI him

'It wasn't pleasant for him?'

b. ŋgbá nyɔ nə yóó nɔvĭ ɖetɔ́ ó. (Gbe, Waci2)

NEG good SI their brother other pl

'It isn't good for their brothers.'

The NP following 'give' can also be interpreted as the source of the action denoted by the verb preceding it, in the case of certain intransitive motion verbs such as 'run' (49), or as the human source of the referent of the object argument of the verb, in the case of transitive verbs (50).

(49) a. a lon gi i. (Ndyuka)

he run SI you

'He ran from you.'

b. S. si nə dɔ. (Gbe, Aja)

S. flee SI work

'S. fled from his work.'

(50) a. da mo puu a kina gi u.

then I-FUT pull DET(sg) sin SI you (pl)

'Then I'll remove the sin from you.' (Ndyuka, PM7a)

b. ō kān hō nɔ̄ yō wó. (Gbe, Aja2)

they cut money SI them pl

'They demand money from them.'

When the serial phrase headed by 'give' combines with verbs like 'know', 'lie', 'joke', 'say' the NP following 'give' is interpreted as the topic or theme of the action denoted by these verbs (51).

(51) a. mi an sabi gi en. (Ndyuka, PM11a)

I NEG know SI him

'I don't know about her.'

b. ě mã ka ḍu nuḍé ḍɔ we nĭ pɔ̃pi ɔ.

they NEG ? COP something say PART SI pump DET

'They aren't yet saying anything about the pump.' (Gbe, Maxi1)

This theme-introducing 'give' phrase may also be complement to a NP (52a-b). In Ndyuka 'give' in this function alternates with *fu* (52c) though.

(52) a. a wan sani gi a pikin fi en an bun.

FOC DET thing SI DET(sg) child for her NEG good

'It's one thing about her child that isn't right.' (Ndyuka, PM17a)

b. ŋ xo na mi. (Gbe, Xwela)

my speech SI us

'My speech about us.'

c. na a toli fu fosi ten me gi i

FOC DET(sg) story about first time I-PROG give you

'It's a story about former times I am telling you.' (Ndyuka, PM7b)

'Give' headed phrases may also introduce the purpose of the action denoted by the verb preceding them (53). In this function the serial item *gi* alternates with the complementizer/marker *fu* in Ndyuka (54a) and *na* in Gbe alternates with a complementizer such as *fan* in Xwela (54b).

(53) a. a pikin man teki a man lalalala afu lai

DET(sg) little man take DET(sg) man rawraw half load

na a sani gi a pikin nyan.

LOC DET(sg) thing SI DET(sg) child eat

'The little man actively loaded the thing in a half raw state on the thing for the child to eat.' (Ndyuka, PM17b)

b. bɔ nu na lɔ ŋ xo. (Gbe, Xwela1)

close mouth SI-mi say my speech

'Shut up for me to speak/so that I can speak.'

(54) a. a boli a sani (gi mi) fu mi nyan.
he cook DET(sg) thing for me for I eat
'He prepared the thing for me for me to eat.' (Ndyuka)

b. e ɖa nu (na) fan na ɖu. (Gbe, Xwela)
he cook thing SI-me COMP I-FUT eat
'He made food for me for me to eat.'

Finally, *na* and *gi* may also be used to introduce a possessor to a NP (55a-b). In Ndyuka *gi* alternates with *fu* in this context (55c).

(55) a. na a teipi gi mi. (Ndyuka)
PRE DET(sg) tape.recorder SI me
'It's my tape recorder.'

b. kpaca le alɔ mɛ ni. (Gbe, Aja1)
knife LOC hand in SI-he
'The knife in his hand.'

c. du fu a ppa, ai gi mi tyali
one POSS DET(sg) father it-PROG give me sadness
te. (Ndyuka, PM11a)
very
'The one (problem) of the old man, it makes me very sad.'

The serial item derived from a main verb meaning 'to take, to seize, or to grab', *teki* in the Ndyuka varieties, and *sɔ* (A, M), *cɔ* (W) and *ze/yi* (X) in the Gbe varieties has traditionally been viewed as a thematic-role-introducing serial item since it may introduce an instrument argument of the verb preceding it (56).[12]

(56) a. B. teki a tiki naki en. (Ndyuka)
B. SI DET(sg) stick hit him
'B. intentionally took the stick and hit him.'

b. e sɔ tʃivi sɛ pɛ ɔ. (Gbe, Maxi)
he SI knife cut bread DET
'He intentionally took the knife and cut the bread.'

My data suggest, however, that this is just a subtype or perhaps one pragmatic reading related to the more general function of 'take': As a serial item 'take' generally denotes that its subject is actively, consciously, and intentionally causing the change of location, possession, or state denoted by the verb following it (57-59).

(57) a. a tu uman di a teki puu a F.
FOC two woman REL he SI remove LOC F.
'It's two women he's already removed from F.' (Ndyuka, PM7b)

[12]According to my Xwela informant *ze* means 'to take with force and power' and *yi* means 'to take, not necessarily with force or power.'

b. ó yǐ ekpɛn we dó xǐnɛ́. (Gbe, Xwela2)

you SI type.of.fish come put there

'You intentionally put the fish there.'

(58) a. a teki a boto seli gi en baala. (Ndyuka)

she SI DET(sg) boat sell SI her brother

'She intentionally (took and) sold the boat to her brother.'

b. ɔ́ tʃɔ́ biyɛ́ wó na mi. (Gbe, Waci)

he SI note pl give us

'He intentionally (took and) gave us 50 CFA.'[13]

(59) a. a teki a bata booko. (Ndyuka)

he SI DET(sg) bottle break

'He intentionally (took and) broke the bottle.'

b. e yi eyɛ gbɛ gble. (Gbe, Xwela1)

they SI his life spoil

'They intentionally spoiled his life.'

Da Cruz (1992, p. 129-130) suggests that there are two possible ways to prove that 'take' means active participation of its subject in the activity denoted by the verb following 'take': First, 'take' should not be able to take an inanimate, non-active, subject. Second, 'take' should not be able to be followed by a verb that denotes an activity where

[13]CFA is the name of the currency of the francophone West African countries.

the active and conscious participation of the subject is not required. The examples in (60) show that 'take' cannot take an inanimate, non-active subject. And the examples in (61) show that 'take' can most likely not be followed by verbs which denote an activity where the active or conscious participation of the subject is not required or involved. This then can be taken as evidence that 'take' as a serial item describes active and conscious participation of the subject in Ndyuka and Gbe.

(60) a. *a wagi teki a bata booko. (Ndyuka)

DET(sg) car SI DET(sg) bottle break

b. *ehũ lɔ yi eyɛ gbɛ gble. (Gbe, Xwela1)

car the SI his life spoil

(61) a. ?*a pikin teki a beenki lasi. (Ndyuka)

DET(sg) child SI DET(sg) container lose

b. *kɔku sɔ kɛkɛ tɔ̃ bu. (Gbe, Maxi)

Koku SI bike his lose

The serial item 'carry', *tya* in the Ndyuka varieties and *hɛn* (A, M, X) and *hən* (W) in the Gbe varieties, could also be seen to function as a role-introducing serial item since 'carry' may introduce a commitative role of a change of location-denoting verb following it (62a-b). In some varieties of Gbe the NP following *hɛn* (A, M, X) and *hən* (W) may usually not be a human (adult) (62c) though. In these varieties *hɛn* and *hən* are generally replaced by *kplɔ(n)* 'to accompany' (62d).

(62) a. ai tyai i mai gwe a opuse.
he-PROG SI your mother-in-law go.away LOC up.side
'He is taking your mother-in-law up-river. (Ndyuka, OK 3a)

b. kɔku hɛn amba y' afi mɛ. (Gbe, Aja)
Koku SI Amba go market in
'Koku took Amba to the market.'

c. *kofi hən asiba yi asi mə. (Gbe, Waci)
Kofi SI Asiba go market in

d. kofi kplɔ asiba yi asi mə. (Gbe, Waci)
Kofi accompany Asiba go market in
'He accompanied Asiba to the market.'

The commitative role might, however, just be a subtype of the following general function of 'carry': As a serial item 'carry' seems to denote that its subject is not *necessarily* actively, consciously, or intentionally causing the state or the change of location of the entity following it. The manner in which the change is brought about is expressed by the verb following 'carry'.[14]

(63) a. ɛ - tya a moni lasi. (Ndyuka)
he SI DET(sg) money lose

[14]D. Winford (personal communication) suggested that it is also possible that the 'unintentionality' reading is not part of the semantics of 'carry' itself. It might just be the result of a pragmatic interpretation.

'He took and lost the money (unintentionally).'

b. kɔku hɛn mɔ̃to ɔ gba. (Gbe, Maxi)
koku SI car DET break
'Koku took and wrecked the car (unintentionally).'

According to DaCruz (1992, p. 118, 130) there are two types of evidence which show that 'carry' does not require active or intentional participation of the subject in the action denoted by the verb following it: First, 'carry' can take an inanimate subject (64) and second, it cannot be followed by verbs which necessarily require active and conscious participation of the subject (65).

(64) a. a seli boto tya den kon. (Ndyuka)
DET(sg) sell boat SI them come
'The commercial boat brought them.'

b. mɔ̃to ɔ hɛn emɛ ɛ va. (Gbe, Maxi)
car DET SI person DET come
'The car brought the person.'

(65) a. *a tya en rei. (Ndyuka)
she SI him drive

b. *e hɛn safe lɔ gblɛ. (Gbe, Xwela)
he SI key DET throw.away

The serial item 'carry' can, however, only combine with a small number of change of location ('go', 'come') and state-denoting ('break', 'lose') verbs. It is, however, not compatible with other serial items (66-67).

(66) a. *a tya a sani poti na a tafa tapu.
he SI DET(sg) thing put LOC DET(sg) table top
(Ndyuka)

b. *kɔku hɛ̃ [a]fokpa lɔ wo wla. (Gbe, Aja)
Koku SI shoe DET pl hide

(67) a. *a tya a sani boli. (Ndyuka)
he SI DET(sg) thing cook

b. *e hɛn koklo hū. (Gbe, Maxi)
he SI chicken kill

Whether or not a particular change of location or state verb may follow 'carry' depends on whether speakers can imagine that the action can be carried out unintentionally or non-actively.

In all varieties of Ndyuka and Gbe there are also SVCs whose serial phrase is headed by an item derived from a main verb meaning 'to say, to speak', *taki* in the Ndyuka varieties, and *mɔ* (A), *ɖɔ* (M), *be* (W), and *fan* (X) in the Gbe varieties. As main verbs they take a NP or S argument which denotes what is being said. In their serial item

function they introduce the theme argument of perception, cognition and utterance verbs as in (68-70) respectively.

(68) a. ma mi nai si taki a simpan.
but I NEG-PROG see SI he tight
'But I don't see that he is big.' (Ndyuka, OK2b)

b. ũ mɔ̃ ɖɔ alĩgbó emĩ tɔ̃ ɔ̃ emĩ nã sũdɔ̃.
I see SI path we POSS TOP we FUT block
'I see that we will block our path.' (Gbe, Maxi1)

(69) a. mi an be sab taki a de anga yonku
I NEG PAST know SI he COP with young
meit. (Ndyuka, PM17a)
girl
'I didn't know that he is with a young woman.'

b. e nya mɔ nyɛ ble. (Gbe, Aja)
she know SI I sick
'She knows that I am sick.'

(70) a. dda G. taigi en taki a yuu di a be
father G. tell him SI DET(sg) time REL he PAST
e go a bakaa, den à be sabi
PROG go LOC European they NEG PAST know

san na dunsu. (Ndyuka, OK2b)

what COP thousend

'Elder G. told him that at the time when he was going to the coast, they didn't know what a thousand Surinamese guilders is.'

b. á nɩ́ mɔ̄ ō ḍɔ́ azán yi. (Gbe, Aja2)

they-FUT say SI they fix day ?

'They'll say that they fixed such a date.'

'Say' may introduce an actual utterance such as quoted direct speech (71).

(71) a. ne ai taigi mi taki o baala! I be

then he-PROG tell me SI Oh brother you PAST

de ete? (Ndyuka, OK3a)

COP yet

'Then he was saying to me: Oh brother! You were still there?'

b. a nɩ́ mɔ̄ ɛ̄pɛ̄ō! (Gbe, Aja2)

he-FUT say SI Oh

'He'll say: Oh!'

'Say' cannot, however, combine with itself: If 'say' is used as the main verb of the sentence, the proposition of the utterance cannot be introduced by the serial item 'say'.

(72) a. a taki a an doo na a sama.

he say it NEG reach LOC DET(sg) person

'He said that it didn't reach the person.' (Ndyuka)

b. *a taki taki a an doo na a sama.

he say SI it NEG reach LOC DET(sg) person

c. ó be ətɔgbi-yɔvi ŋ̄cɩ́ yé wɔ̄ ɔ̄nɩ́ ɛ

they say grandchild man FOC make thing DET

'They say it's the grandkid of the man who did it.'

d. *ó be be ətɔgbi-yɔvi ŋ̄cɩ́ yé wɔ̄ ɔ̄nɩ́ ɛ

they say SI grandchild man FOC make thing DET

There are also constructions in which 'say' introduces the content of some utterance denoting NP such as a message or a name (73a&b). It also seems as if 'say' may introduce the content of some activity or state.

(73) a. ne we kisi bosikopu namo taki a goon

then we get message constantly SI DET(sg) field

tapu ogii. (Ndyuka, OK2b)

close evil

'Then we constantly got the message that the field has overgrown badly.'

b. e ná vi ɛ̄ lɔ̄ ɛ̄ ŋ̄kɔ̄ mɔ̄ ā̄mɔ̄wɔ́nɔ̄.

he give child his DET his name say Amowono

'He gave his child its name Amowono.' (Gbe, Aja1)

c. neen a koli mi taki anda de e taagi
then he mislead me SI over.there they PROG tell
en taki a te neti da ai go teke.
him SI FOC till night then he-PROG go take
'Then he misled me saying that over there they were telling him that it's at night when he would go and take it.' (Ndyuka, OK4b)

d. e lé shigbé mɔ̃ mɛ́ cĭ yĭ nyĭ ebɔ̃
it COP like SI person REL FOC COP fetish
wãtɔ̃. (Gbe, Aja2)
maker
'He is like a person who makes fetishes.'

In other constructions 'say' seems to introduce the reason for an action (74).

(74) a. a fika a konde taki a an lobi en moo.
he leave DET(sg) village SI he NEG love it more
'He left the village because he doesn't like it any more.' (Ndyuka)

b. ya jo bé nə lə ə̃ bə nə yé ḍokwĭ.
he-FUT leave SI he COP it care of her self
'He'll leave because he is taking care of her.' (Gbe, Waci1)

Ndyuka and Gbe also have a SVC whose serial phrase is headed by an item derived from a main verb meaning 'to outdo', *moo* in the Ndyuka varieties, and *wu* (A), *hu(kan)*

(M), *u* (W), and *h/wu(gan)* (X) in the Gbe varieties. As main verbs they take an NP argument which denotes the entity that is being outdone. As serial items they introduce the standard of comparison which may be an entity, an object or a person (75a&c), or an entire proposition (75b&d).[15] The property under comparison and the item that is being compared is denoted by the verb preceding 'outdo' and its subject respectively.

(75) a. papa A., a ogi moo en. (Ndyuka, PM11b)
father A he bad SI him
'Elder A., he is worse off than him.'

b. a dansi moo mi singi. (Ndyuka)
he dance SI I sing
'He dances more than I sing.'

c. ə̃ desi ə̃dɔ̃ ma ú mió. (Gbe, Waci2)
he know work that SI us
'He knows that work more than us.'

d. gɔ idɔɔ i wuwe wugan u gɔ adʒa.
with net I fish SI he with basket-net
'I caught more fish with the net than he caught with a basket.'
(Gbe, Xwela)

[15]Huttar and Koanting (1993b, p. 170) notes that there are also comparative constructions in Ndyuka which involve two standards and two entities of comparison. My data does not include such constructions.

In Ndyuka *moo* can also be used to indicate comparison with an implied standard of comparison. That is, the standard of comparison is not overtly expressed but, depending on the temporal specifications of the construction, assumed to be the current or past state of the element to be compared. In such constructions *moo* precedes the verb denoting the property of comparison and is never followed by a NP (76a). It cannot follow the verb denoting the property of comparison (76b).

(76) a. a o moo ogii oo. (Ndyuka, OK2a)
he FUT SI bad EMPH
'He'll be worse.'

b. *a o ogii moo. (Ndyuka)
he FUT bad SI

My data also include a number of 'double-*moo* constructions' in which one *moo* is used to introduce the standard of comparison and another *moo* precedes the property under comparison (77). In this type of construction the *moo* which precedes the verb seems to be marking comparison.

(77) nou na faansi moni, na dati moo bun moo
now FOC french money FOC that SI good SI
du fu wi. (Ndyuka, PM2b)
one POSS us
'Now, it's the French money, it's that which is better than our money.'

In the Gbe varieties, 'outdo' can also be used to indicate comparison with an implied standard of comparison if no NP follows 'outdo'. 'Outdo', however, remains postposed to the verb denoting the property under comparison (78).

(78) kokwe eyɔ mya̍ hu. (Gbe, Maxi)
banana this ripe SI
'This banana is riper.'

Finally, Ndyuka and Gbe also have a SVC whose serial item is derived from a main verb meaning 'to pass, to overtake', *pasa* in the Ndyuka varieties, and *zɛ* (M), *to* (W), and *nya* (X) in the Gbe varieties.[16] As main verbs *pasa* takes an NP and *zɛ*, *to*, *nya* take a PostP which denotes the entity that is being overtaken. In Maxi the postposition which combines with the NP is *wu(tu)*, in Waci it is *nti*, and in Xwela it is *go*.[17] As a serial item 'overtake' introduces the standard of a competitive comparison which may be an object or a person. Unlike the comparison indicated by 'outdo', the kind of comparison marked by 'overtake' assumes that the property under comparison is gradient, may be acquired by different entities in different degrees or at different speed levels, or is individually adjustable for each entity. Often the assumption is that the entities of comparison started out at the same level with respect to that property.

[16]I do not have data on this from Adja.

[17]It is not quite clear to me what the meanings of these postpositions are since my informants were not entirely sure either. *nti* in Waci seems to mean something like 'body'.

(79) a. a boto ya langa pasa den taa wan de.
DET(sg) boat here long SI DET(pl) other one there
'This boat is longer than the other one there.' (Ndyuka)

b. *a boto ya baala pasa den taa wan de.
DET(sg) boat here wide SI DET(pl) other one there

c. atɔ̃ ya ḍi to ḍeto a nti. (Gbe, Waci)
apple this ripe SI other DET ?
'This apple got riper (quicker) than that one.'

d. *awu ya le yibɔ to ḍeto a nti.
clothe this COP black SI other DET ?

In (79a) it is possible for my Paramaccan informants to imagine that one boat 'overtakes' another in length since the length of boats is gradient and individually adjustable but all boats have at least a minimum length. (79b) is unacceptable since the width of boats (dugout-type canoes) is not individually adjustable but is determined by the width of the tree from which it is made. The example in (79c) is acceptable since ripeness is a possible property which is acquired by fruits like apples at different speeds or degrees and all entities that may be compared start out at the same level — not ripe. Finally, the example in (79d) is unacceptable since black is not a property that shirts acquire or which may be individually adjusted on/for them.

In Ndyuka *pasa* can also occur following a verb without introducing a NP. In these constructions it expresses that the property denoted by the verb preceding it is 'too much' (80). As a modifier of degree (excessiveness) it may combine with a wide variety of property denoting verbs. These are not restricted to verbs denoting acquirable or adjustable properties.

(80) a. a dii pasa. (Ndyuka, OK2a)
it expensive SI
'It is too expensive.'

b. a impi ya baaka pasa. (Ndyuka)
DET shirt here black SI
'This shirt is too black.'

The above description and comparison of thematic-role-introducing SVCs in Ndyuka and Gbe showed that the range of such constructions is very similar in Ndyuka and Gbe and that the individual constructions are also very similar in structure: Their serial items are derived from the same kinds of main verbs, they are followed by similar types of XPs, and they introduce the same kinds of thematic roles. There were four differences between Ndyuka and Gbe: First, in Gbe the serial item 'pass' can introduces the mediator or means of a proposition while in Ndyuka it cannot. Second, in Gbe the serial item 'carry' cannot introduce a commitative role in all varieties of Gbe but must be replaced by an item meaning 'to accompany' as a main verb. In Ndyuka 'carry' is generally used to introduce a commitative role. Third, in Ndyuka the serial item 'overtake' can be used to

express excessiveness when it is not followed by a NP while in Gbe it does not seem to be able to perform this function. Fourth, 'outdo' in Ndyuka precedes the main verb when it introduces an implied standard of comparison while in Gbe it follows the verb.

The many close similarities between these constructions in Ndyuka and Gbe suggest that these SVCs in the SPC were most likely modeled on those in Gbe.

4. 3. 3. Resulative SVCs

The group of resultative SVCs includes constructions in Ndyuka and Gbe in which the serial item is derived from a main verb denoting an action which results in a state. In the Ndyuka varieties they are items derived from verbs such as *booko* 'break', *piiti* 'split, rip', *kii* 'kill', *towe* 'throw away', *koti* 'cut' etc.. In the Gbe varieaties they are *gban* 'break', *vun* 'rip', *hu* 'kill' etc. in Aja, *gba(n)*, *trɛn* 'break', *hu* 'kill', *nyĩ kpe* 'throw away' etc. in Maxi, *gba*' break', *vun* 'rip', *hu* 'kill', *ɖangbe* 'throw away' etc. in Waci, and *gba* 'break', *zɛ* 'rip', *hu* 'kill', *gblɛ* 'throw away', *fyɔ* 'burn' etc. in Xwela. When functioning as main verbs, these verbs are fully verbal and they may be used transitively or intransitively. In their serial item function resultative verbs in the Ndyuka and Gbe varieties follow VPs headed by transitive action verbs and indicate the result or limit of the action denoted by the verb preceding them (81).

(81) a. a hali a impi piiti. (Ndyuka)
he pull the (sg) shirt SI (rip)

'He pulled the shirt until it got ripped.'

b. e la li awu lɔ fyɔ. (Gbe, Xwela)
he FUT iron shirt the SI (burn)
'He'll iron the shirt until it'll get burned.'

In both Ndyuka and Gbe the verbal head of the construction can be any action denoting verb which takes an animate or active agent. The possible serial items in both languages come from a relatively wide range of action denoting verbs which result in visible states.

4. 4. The syntactic properties of SVCs

The aim of this section is twofold: First, it reviews the literature on the syntactic properties of SVCs, specifically the categorial status of the serial item and the constituency structure of SVCs to outline ways of determining the extent of the similarities in the syntactic properties manifested by SVCs in Ndyuka and Gbe. Second, based on tests suggested by the literature I try to analyze and compare the syntactic properties of the SVCs in my Ndyuka and Gbe data.

4. 4. 1. The categorial status of serial items

As shown above, the serial item in a SVC is an element derived from a main verb which performs grammatical functions such as expressing the direction of the movement of the subject rather than typically verbal functions such as denoting an action or a state when it is combined with another (main) verb. The fact that serial items perform

functions not typically associated with verbs has led researchers (Bamgbose, 1974; Sebba, 1987; Veenstra, 1996) "to examine the case for treating serial verbs as members of other categories." (Sebba, 1987) using positive and negative tests of verbhood. Positive syntactic tests of verbhood test for typically verbal characteristics (in these languages) and negative syntactic tests test for properties typically associated with non-verbal items such as prepositions and nouns (in these languages). The various syntactic tests that have been applied to determine the categorial status of serial verbs include the ones given in (82-83).

(82) Positive syntactic tests for determining verbhood

a. ability to be marked by tense, aspect, and polarity markers

b. ability to select a subject

c. ability to be predicate clefted

d. ability to be stranded

(83) Negative syntactic tests for determining verbhood

a. ability to be clefted

b. ability to be pied-piped

Tests (82a-b) are relevant since the ability of a lexical item to be modified by tense, aspect and polarity markers, and to subcategorize for a subject argument are primary indicators of verbhood.

Predicate clefting (82c) involves copying of a verb to the left of the sentence, often preceding or following a focus marker, to focus it (84). The rationale for this test is that it

has been observed for a number of languages, including Ndyuka and Gbe, that only verbal elements must be copied under focus (84a). Members of non-verbal categories such as nouns, prepositions, and adverbs are never copied under focus (84b).

(84) a. (na) bali a bali den pikin. (Ndyuka)
FOC shout he shout DET(pl) children
'He SHOUTED at the children.'[18]

b. *(na) den pikin a bali den pikin.
FOC DET(pl) child he shout DET(pl) child

Stranding (82d) involves leaving the head of a phrase behind at the right edge of the sentence when moving its complement to the left edge of the sentence under focus or topicalization (85). The rationale for this test is that it has been observed that non-verbal heads of phrases such as prepositions can typically not be stranded in Ndyuka (85a) but are moved to the left edge of the sentence with their complement (85b). Verbal heads, on the other hand, are typically not moved out with their complements (85c) but are left behind at the right edge of the sentence (85d). Thus, positive results from this test suggest that the item being stranded is verbal.

(85) a. *(na) den pikin a go a osu anga.
FOC DET(pl) child she go LOC house with

b. (na) anga den pikin a go a osu

[18]In the translation the focused element is capitalized.

FOC with DET(pl) child she go LOC house

'WITH THE CHILDREN she went home.'

c. *(na) nyan a kwaka Adou.

FOC eat DET(sg) processed.cassava Adou

d. (na) a kwaka Adou nyan.

FOC DET(sg) processed.cassava Adou eat

'It's THE PROCESSED CASSAVA that Adou ate.'

Stranding does not provide evidence of verbhood in the varieties of Gbe since both verbal and non-verbal elements such as postpositions are typically stranded. The varieties of Gbe do not seem to have true prepositions.

Clefting (83a) involves moving a lexical item to the left of the sentence, often preceding or following a focus marker, to focus, topicalize, or question it. A gap is typically left behind in the place from which the item has been moved (86a). The rationale for this test is that it was observed for a number of languages, including Ndyuka and Gbe, that only non-verbal elements such as nouns, prepositions, and adverbs must be clefted (86a) while verbal items cannot be clefted on their own (86b-c) but must leave a copy behind (86d-e).

(86) a. (na) koo wata a diingi __. (Ndyuka)

FOC cold water she drink __

'It's COLD WATER that she drank.'

b. *(na) diingi a __ koo wata.

FOC drink she __ cold water

c. *(na) wani a __ diingi koo wata.

FOC want she __ drink cold water

d. (na) diingi a diingi koo wata.

FOC drink she drink cold water

'She DRANK cold water.'

e. (na) wani a wani diingi koo wata.

FOC want she want drink cold water

'She WANTS to drink cold water.'

Finally, pied-piping (83b) involves moving of a head along with its complement to the left of the sentence to focus it. In Ndyuka only prepositions can be pied-piped along with their complements (87). Thus, any item that can be pied-piped must be non-verbal.

(87) anga sa i go a osu? (Ndyuka)

with what you go LOC house

'With what are you going home?'

The results from this and other studies (Jansen, Koopman & Muysken; Sebba, 1987; Veenstra, 1996) show that serial items which occur in the so-called V_1 slot in a SVC behave unambiguously like verbs, from a syntactic point of view. Most of the serial items that occur in the so-called V_2 slot in a SVC, however, show behavior typical of non-verbal categories such as prepositions. Most previous researchers, with the possible exception

of Veenstra (1996) tended in their analysis of SVCs to either ignore the non-verbal behavior of serial items (Sebba, 1987), or did not consistently determine the categorial status of serial verbs using syntactic tests (Baker, 1989; Bamgbose, 1974; Winford, 1993). The fact that serial items such as 'give' cannot be unambiguously classified as verbs might suggest that they are either elements of functional categories such as prepositions or constitute a separate functional category (in these languages).

4. 4. 2. The categorial status of the serial items in the Ndyuka and Gbe data

This section investigates the categorial status of the serial items in the Ndyuka and Gbe data using the verbhood tests in (82-83). The analysis shows that the positive and negative verbhood tests outlined in (82-83) are not able to provide clear evidence of the verbhood of most serial items: It seems that the serial items in my Ndyuka and Gbe data display different degrees of verbal and prepositional or functional behavior.

The analysis of the categorial status of serial items in Ndyuka and Gbe shows that serial items can be roughly subdivided into three broad groups on the basis of the verbhood tests outlined in (82-83): Some serial items such as *teki* 'take' in Ndyuka and its Gbe counterparts *sɔ* (A, M), *cɔ, xɔ* (W), *yi, ze* (X) and *tya* 'carry' in Ndyuka and its Gbe counterparts *hɛn* (A, M, X) and *hən* (W) 'carry', and *kplɔn* 'accompany' display clearly verbal behavior. Serial items such as *gi* 'give' in Ndyuka and its Gbe counterpart *na* and *moo* 'outdo' in Ndyuka and to_2, $gbɔn_2$, $zɔn_2$ 'pass' in Gbe display prepositional

behavior. All the other serial items display varying degrees of verbal and prepositional or functional behavior which makes it difficult to unambiguously characterize them syntactically as either a verb or a preposition or a member of some other functional category. Below I briefly present the syntactic properties of each group.

According to the verbhood tests in (82-83) the serial items *teki* 'take' in Ndyuka and its Gbe counterparts *sɔ* (A, M), *cɔ, xɔ* (W), *yi, ze* (X) and *tya* 'carry' in Ndyuka and its Gbe counterparts *hɛn* (A, M, X) and *hən* (W) 'carry', and *kplɔn* 'accompany' which are preposed to the (semantic) head behave clearly like verbs: They can be directly preceded by tense, mood, aspect, or negation markers, and they subcategorize for a subject argument.

(88) a. a na o teki en nyan. (Ndyuka)
she NEG FUT SI (take) it eat
'She won't eat it.'

b. kofi la cɔ afɔkpa wla. (Gbe, Waci)
Kofi FUT SI (take) shoe hide
'Kofi will actively hide the shoes.'

These specifications can, however, not be marked on the verb following 'take, carry accompany'; such constructions are unacceptable (89) which suggests that the verb following 'take' and 'carry' is probably not fully verbal.

(89) a. *a na o teki en a na o nyan.
she NEG FUT SI (take) it she NEG FUT eat

b. *kofi la cɔ afɔkpa kofi/e la wla.
Kofi FUT SI (take) shoe Kofi/he FUT hide
(Gbe, Waci)

Like typical verbs in these languages they can also be predicate clefted (90) but the verbs following them cannot be predicated clefted according to my informants (91).

(90) a. a teki a teki a boto seli.
FOC SI (take) he SI (take) DET(sg) boat sell
'He INTENTIONALLY sold the boat.' (Ndyuka)

b. cɔ (e) kofi cɔ afɔkpa wla. (Gbe, Waci)
SI (take) FOC Kofi SI (take) shoe hide
'Kofi INTENTIONALLY hid the shoes.'

(91) a. *a seli a teki a boto seli. (Ndyuka)
FOC sell he SI DET(sg) boat sell

b. *wla (e) kofi cɔ afɔkpa wla. (Gbe, Waci)
hide FOC Kofi SI shoe hide

In addition, their object NP can be moved under focus or questioning (92).

(92) a. ne en a na o teki nyan. (Ndyuka)
FOC it she NEG FUT SI (take) eat

'It's this she won't eat.'

b. afɔkpa (e) kofi la cɔ wla. (Gbe, Waci)
shoe FOC Kofi FUT SI (take) hide
'Kofi will intentionally hide the shoes.'

'Take', 'carry', and 'accompany' in Ndyuka and Gbe cannot be pied-piped or clefted like non-verbal elements. The above data suggest that 'take', 'carry', and 'accompany' in Ndyuka and Gbe should be characterized as verbs when they occur in a SVC.

According to the verbhood tests in (82-83) the serial items $gi_{1\text{-}10}$ 'give' in Ndyuka and their Gbe counterparts $na_{1\text{-}10}$ 'give', and moo_1 'outdo' in Ndyuka and, to_2, $gbɔn_2$, $zɔn_2$ 'pass' in Gbe display prepositional behavior; they give negative results for the following verbhood tests: They cannot be independently marked for tense, mood, aspect, and negation or take a subject (93). Those specifications and the subject are only found preceding the main verb of the construction (94).

(93) a. *da mi o puu a kina o gi u.
then I FUT pull DET(sg) sin FUT SI (give) us
(Ndyuka)

b. *a sa axwe lɔ a nɔ kofi. (Gbe, Aja)
he-FUT sell house DET FUT SI Kofi

(94) a. da mi o puu a kina gi u.
then I FUT pull the (sg) sin SI you (pl)

'Then I will remove the sin from you.' (Ndyuka, PM7a)

b. a sa axwe lɔ nɔ kofi. (Gbe, Aja)

he-FUT sell house DET SI Kofi

'He'll sell the house to/for Kofi.'

They can also not be predicate clefted (95) but the verbs preceding them can be predicate clefted (96) suggesting that they are the verbal head of the construction.

(95) a. *na gi a hali a sani gi mi. (Ndyuka)

FOC SI she drag DET(sg) thing SI me

b. *nɔ ye e sa axwe lɔ nɔ kofi. (Gbe, Aja)

SI FOC he sell house DET SI Kofi

(96) a. na hali a hali a sani gi mi. (Ndyuka)

FOC drag she drag DET(sg) thing SI me

'She DRAGGED the thing for me.'

b. sa ye e sa axwe lɔ nɔ kofi. (Gbe, Aja)

sell FOC he sell house DET SI Kofi

'He SOLD the house to Kofi.'

The serial items in this category may be stranded (97) which may be taken as a (weak) verbhood indicator since prepositions are usually not stranded (in Ndyuka).

(97) a. na mi a hali a sani gi. (Ndyuka)

FOC me she drag DET(sg) thing SI

'She dragged the thing for me.'

b. kofi e e sa axwe lɔ nɔ. (Gbe, Aja)

Kofi FOC he sell house DET SI

'To Kofi he sold the house.'

With respect to the negative verbhood tests all items give negative results for clefting. None can be clefted (98). This is not surprising since generally only items with a 'full' semantic content such as nouns, adverbs and PPs/PostPs can be clefted.

(98) *na gi a hali a sani mi. (Ndyuka)

FOC SI she drag DET(sg) thing me

But all the serial items may be pied-piped (99).

(99) a. na gi mi a hali a sani. (Ndyuka)

FOC SI me she drag the thing

'FOR ME she dragged the thing.'

b. nɔ kofi e e sa axwe lɔ. (Gbe, Aja)

to Kofi FOC he sell house DET

'It was TO KOFI he sold the house.'

The discussion of this group of serial items suggests that they are best categorized as prepositions.

The third group of serial items, those which display varying degrees of verbal and non-verbal behavior, include most serial items in Ndyuka and Gbe. They cannot be easily

categorized as verbs or as unambiguous members of a functional category on the basis of the verbhood tests in (82-83) but seem to occupy various kinds of intermediate positions on a verb-functional element continuum. All serial items from this group cannot be directly preceded by a negation marker or a subject. A number of them can also not be directly preceded by tense, mood, and aspect markers (100). They include:

(a) *taki*$_{1\text{-}3}$ 'say' and its Gbe counterparts *mɔ*$_{1\text{-}3}$ (A), *ɖɔ*$_{1\text{-}3}$ (M), *be*$_{1\text{-}3}$ (W), *fan*$_{1\text{-}3}$ (X),

(b) resultative verbs like *booko* etc. in Ndyuka and their Gbe counterparts,

(c) *pasa*$_3$ 'overtake' in Ndyuka,

(d) *to*$_1$ (A, W), *gbɔn*$_1$ (M), and *zɔn*$_1$ (X) 'pass' in Gbe,

(e) *so*$_{1\text{-}3}$ (A), *sin*$_{1\text{-}3}$ (M), *co*$_{1\text{-}3}$ (W), *lɛ*$_{1\text{-}3}$ 'come out' in Gbe,

(f) *do*$_{1\text{-}2}$ (A), *ɖo*$_{1\text{-}2}$ (M, W, X) 'arrive' in Gbe,

(g) *do* (A, X), *ɖo* (M, W) 'put' in Gbe,

(h) *wu*$_{1\text{-}2}$ (A), *hu(kan)*$_{1\text{-}2}$ (M), *u*$_{1\text{-}2}$ (W), *h/wu (gan)*$_{1\text{-}2}$ (X) 'outdo' in Gbe,

(i) *zɛ* (M), *to*$_3$ (W), *nya* (X) 'overtake' in Gbe.

In constructions involving these serial items only the main verb preceding them can take such specifications (101).

(100) a. *a be sabi be taki a abi moni. (Ndyuka)
she PAST know PAST SI he have money

b. *e na biɔ okã ã na ɖɔ emi na ɖu nu.
he FUT ask cook the FUT SI we FUT eat thing
(Gbe, Maxi)

(101) a. a be sabi taki a abi moni. (Ndyuka)
she PAST know SI he have money
'She knew that he had money.'

b. e na biɔ okã ã ɖɔ emi na ɖu nu.
he FUT ask cook DET SI we FUT eat thing
'He will cook for us to eat.'

Some of the serial items from this third group display some verbal behavior in that they can be preceded by aspect markers. They include:

(a) *go* 'go' in Ndyuka,

(b) *kon* 'come' in Ndyuka,

(c) *lontu* 'around' in Ndyuka,

(d) *pasa*$_{1\text{-}2}$ 'pass' in Ndyuka,

(e) *komoto*$_{1\text{-}2}$ 'come out' in Ndyuka,

(f) *doo* 'arrive' in Ndyuka,

(g) *poti* 'put' in Ndyuka.

Others may be preceded by tense and aspect markers. They include:

(a) *yi* (A, M, W), *sɔn* (X) 'go' in Gbe,

(b) *va* (A, W), *wa* (W, X) 'come' in Gbe,

(c) *trɔɖo* 'around' in Gbe.

(102) a. sigisi pasi di me seni a pikin e go
six times REL I-ASP send DET(sg) child ASP SI
ne en. (Ndyuka, PM11a)
LOC him
'Six times that I have sent the child to him.'

b. ya sĭ (a) yĭ aɸə̄. (Gbe, Waci1)
he-FUT flee FUT SI house
'He'll run away to the house.'

With the exception of *pasa*$_2$ (103c) none of the serial items from this group can be predicate clefted (103a-b). Only the verbs preceding them can be predicate clefted (104).

(103) a. *na komoto a saka komoto a sodo.
FOC SI she come.down SI LOC house on stilts
'She came down FROM the house on stilts.' (Ndyuka)

b. *co ye ya mli bɔlu co to dʒi.
SI FOC he-FUT roll ball SI mountain top
'He'll roll the ball FROM the top of the mountain.' (Gbe, Waci)

c. na pasa mi pikin langa pasa du fii. (Ndyuka)
FOC SI my child long SI one POSS-you
'My child has gotten longer THAN YOURS.'

(104) na dongo a dongo doo bilo.
FOC go.down stream she go.down stream SI below
'She WENT DOWN STREAM to the coast.' (Ndyuka)

All the verbs in this group can be stranded (105).

(105) a. na bilo a dongo doo. (Ndyuka)
FOC below she go.down stream SI
'TO THE COAST she went.'

b. lɛ́ egbɛ yi e kũ hũ do. (Gbe, Aja)
LOC today FOC he drive car SI
'TILL TODAY he drove the car.'

However, none of the elements from this group can be pied-piped (106).

(106) a. *na doo bilo a dongo. (Ndyuka)
FOC SI below she go.down stream

b. *do lɛ́ egbɛ yi e kũ hũ. (Gbe, Aja)
SI LOC today FOC he drive car

The above data suggest that the items from this third group of serial items range from somewhat verbal to relatively prepositional. The somewhat verbal items include:

(a) *go* 'go' in Ndyuka and its Gbe counterparts *yi* (A, M, W), *sɔn* (X) 'go',

(b) *kon* 'come' in Ndyuka and its Gbe counterparts *va* (A, W), *wa* (W, X),

(c) *lontu* 'around' in Ndyuka and its Gbe counterpart *trɔdo* 'around'

(d) *pasa*$_{1-3}$ 'pass' in Ndyuka,

(e) *komoto*$_{1-2}$ 'come out' in Ndyuka,

(f) *doo* 'arrive' in Ndyuka,

(g) *poti* 'put' in Ndyuka.

The relatively prepositional items include:

(a) *taki* 'say' in Ndyuka and its Gbe counterparts *mɔ* (A), *ɖɔ* (M), *be* (W), *fan* (X),

(b) resultative verbs like *booko* in Ndyuka and their Gbe counterparts,

(c) *to*$_1$ (A, W), *gbɔn*$_1$ (M), and *zɔn*$_1$ (X) 'pass' in Ndyuka,

(d) *so*$_{1-3}$ (A), *sin*$_{1-3}$ (M), *co*$_{1-3}$ (W), *lɛ*$_{1-3}$ 'come out' in Gbe,

(e) *do*$_{1-2}$ (A), *ɖo*$_{1-2}$ (M, W, X) 'arrive' in Gbe,

(f) *do* (A, X), *ɖo* (M, W) 'put' in Gbe,

(g) *wu*$_{1-2}$ (A), *hu(kan)*$_{1-2}$ (M), *u*$_{1-2}$ (W), *h/wu (gan)*$_{1-2}$ (X) 'outdo' in Gbe,

(h) *zɛ* (M), *to*$_3$ (W), *nya* (X) in Gbe.

Given their intermediate status I call them serial items.

4. 4. 3. The constituent structure of SVCs

In this section I discuss the constituency structure of SVCs. Most of the recent literature on SVCs (Foley and Olson, 1985; Jansen et al., 1978; Sebba, 1987; Veenstra, 1996; Winford, 1993) rejects a multiclausal interpretation of SVCs.[19] Scholars agree that

[19]A possible exception to this is Baker (1989) who argues that SVCs are double-headed VPs.

the verbs in a SVC are part of the same clause, they have the same tense, aspect, mood, and polarity specifications and "a common set of arguments of location and time" (Foley and Olson, 1985, p. 47), they are strictly ordered, they usually share some core argument which is only expressed once though, and there are generally clear differences in meaning between SVCs and related multiclausal structures such as coordinate, paratactic and subordinate constructions.[20] This suggests that SVCs consist of two verbs which are fused to the point that they act like a single unit rather than two independent units (Foley and Olson, 1985).

Researchers also agree that the two alleged verbs in a SVC stand in a hierarchical relationship to each other. That is, one verb acts as the (semantic and/or syntactic) head of the construction while the other, usually the serial verb, performs some usually non-verbal function such as 'increasing' its valence.[21] Some disagreement, however, exists with respect to the kind of syntactic relationship that holds between the main verb and the serial phrase: Some scholars (Jansen et al., 1978; Sebba, 1987; Winford, 1993) argue

[20]Sebba uses VP-deletion and movement or extraction of a series-internal NP or PP to show that the verbs in a SVC form a constituent. VP-deletion is not a reliable constituency test, however, since it seems not entirely clear whether a string 'deleted' by ellipsis necessarily represents a constituent or conversely, whether a string that cannot be 'deleted' necessarily is not a constituent (Sag, 1976, p. 668-669). Extraction seems to be a better indicator of some kinds of constituenthood since extraction is generally not possible out of coordinate structures (Ross's Coordinate Structure Constraint).

[21]Veenstra (1996, pp. 111-116) uses three tests (anaphora binding, quantifier binding, and 'each ... the other'-construction) to show that the different NP arguments in a SVC stand in a asymmetrical c-command relationship. That is, NP_2 c-commands XP_3 but XP_3 does not c-command NP_2.

that a subcategorization relationship exists between the main verb and the serial phrase; the serial phrase is essentially a complement to the main verb. Other scholars (Law and Veenstra, 1992; Seuren, 1991; Veenstra, 1996) propose that an adjunction relationship exists between the main verb and the serial phrase; the serial phrase is essentially interpreted as an adjunct to the main verb. Below I briefly outline the two points of view and the evidence brought forwards in favor of them.

4. 4. 3. 1. SVCs as head-complement constructions

Sebba (1987), which is based on Williams (1976) and Jansen et al. (1978), claims that all the SVCs in which the serial item/phrase follows the main verb "form a unified class which can all be analyzed in the same terms" (p. 112): He argues that the main verb and the serial phrase stand in a head-complement relationship. The head-complement relationship that Sebba (1987) posits to hold between the main verb and the serial phrase is based on the following observations: First, the series is "interpreted as referring to a single action rather than a series of related actions." (p. 112). Second, "there is a strict ordering relationship between the verbs." (p. 112). Third, "the first verb in a series may subcategorize for a particular verb or class of verbs to follow it. Thus we find *hari go/kon/puru* "pull go/come/remove" = "pull towards/away from/out" but not *hari fadon* "pull fall down." (p. 112, 114). Fourth, "a series-internal non-reflexive pronoun [...] may not be an anaphor of any of the arguments of the verb in the string." (p. 113). While these observations can help to distinguish the relationship that exists between the alleged

verbs/VPs in a SVC from that which exists between verbs or VPs in coordinate constructions (Sebba, 1987, p. 113), it is not clear whether these observations can help to determine whether the verbs or VPs in a SVC stand in a head-complement or some other, such as an adjunction relationship for the following reasons: First, both head-complement and adjunction constructions refer to a single action rather than two related actions. Second, the linear order between both heads and their complements and heads and their adjuncts is usually also strictly determined and not free. Third, the kinds of thematic roles, be they complements or adjuncts, a particular verbal head can select is also not free but determined by that heads semantics. Fourth, in both head-complement and adjunction constructions a non-reflexive pronoun argument may not be an anaphor of any of the arguments of the verbal head of the construction. The relatively difficult distinction between complements and adjuncts is generally done on the basis of a number of mainly semantic criteria which I elaborate on further below.

Concerning SVCs in which the serial phrase precedes the (semantic) head of the constructions such as constructions involving *teki,* Sebba (1987) shows that they behave slightly differently from those in which the serial item/phrase follows the main verb. He shows that they are similar in some ways (adverb placement) to paratactic constructions but refrains from giving a complete analysis of their constituent structure.

The discussion suggests that while it is possible that some serial phrases stand in a head-complement relationship to the main verb of the construction, the observations put

forward by Sebba (1987) in support of such a relationship cannot sufficiently distinguish them from other types of constructions such as adjunction constructions.

4. 4. 3. 2. SVCs as adjunction constructions

In this section I discuss arguments in favor of an adjunction relationship between the main verb in a SVC and the serial phrase. I base this exposition on arguments brought forward by Veenstra (1996) since it is the most comprehensive presentation and is explicitly based on previous attempts by researchers such as Bickerton and Iatridou (1987), Seuren (1991), Larson (1991), and Law and Veenstra (1992).

One of the arguments brought forward by Veenstra (1996) in favor of the adjunct status of the serial phrase is its optionality. As shown in the examples in (107) from Ndyuka the serial phrase *go a osu* is not required or obligatorily selected by the main verb of the construction since it does not fill a necessary semantic role of the verbal head.

(107) a. Adou tya a peeti go a osu.
Adou carry DET(sg) plate go LOC house
'Adou brought the plate home.'

b. Adou tya a peeti.
Adou carry DET(sg) plate
'Adou carried the plate.'

One problem with this argument is that the optionally of elements in itself does not necessarily constitute evidence of the adjunct status of that element since complements

may also be optional. According to Pollard and Sag (1987) there are two types of optional complements: complements associated with ontologically necessary semantic roles and those associated with ontologically unnecessary roles. Complements associated with ontologically necessary semantic roles are complements which, whether or not they are overtly present, are required to be filled by some object to describe a certain situation. "Eating situations, for example, are of this type. When one says *Kim is eating*, the situation described must include something that is eaten. The eater and eaten roles are both ontologically necessary in the eat relation." (Pollard and Sag, 1987, p. 132). In the case of complements which are not associated with ontologically necessary roles the complement is not a necessary part of the described situation. In the *kick* relation, for example, the *kicker* is necessary but the *kickee* is not necessary since one can kick without kicking anything (Pollard and Sag, 1987). Thus, the optionality of serial phrases is not a sufficient criterion for determining whether a serial phrase is an adjunct or a complement of the verbal head of the construction.

Another argument in favor of the adjunct status of the serial phrase is their semantics: Veenstra (1996), following Larson (1991), suggests that adjuncts have a basic modificatory semantics while complements do not. That is, adjuncts are typically not associated with event-related thematic roles of the verbal head but are functioning as modifiers of these roles or of the event expressed by the main verb. Complements, on the other hand, are typically associated with event-related thematic roles of the verbal head. Given that the contribution that a serial phrase such as *go a osu* in (107a) makes to the

proposition is clearly modificatory. It seems that at least some serial phrases such as directional serial items behave more like adjuncts than like complements.

A third argument concerns the extractability of serial phrases. Veenstra (1996) argues that the fact that some serial phrases such as directional serial phrases cannot be extracted is evidence that they are not complements since complements can be extracted, see (108).

(108) a. andi a tei __ naki hen?[22] (Saramaccan)
what she take __ hit him
'What did she intentionally hit him with?'

e. ambe a tei di pau naki __?
who she take DET(sg) tree hit __
'Who did she intentionally hit with the stick.'

This difference between adjuncts and complements is questionable since it is possible to extract at least some serial phrases such as those headed by *gi* (109).

(109) na gi mi a faa a goon. (Ndyuka)
FOC give me she fell DET(sg) ground
'It was FOR ME that she felled (all the trees) in the field.'

[22]These examples are taken from Veenstra (1996, p. 138-139). The tone markings were left out for convenience and the glosses adapted to the general format of this study.

A possible factor that might determine the extractability of serial phrases might be the categorial status of their head. *Tei* in the Saramaccan example in (108) is fully verbal whereas *gi* in (109) behaves like a preposition. Thus, it is not quite clear whether extraction facts such as these can be used to determine whether an SVC has a head-complement or an adjunction structure.

This discussion suggests that some criteria may apply only to some SVCs and not others, hence they cannot be used to determine the overall syntactic structure of SVCs in general.

4. 4. 3. 3. Ways of distinguishing complements and adjuncts

Besides the difference in the semantic contribution between complements and adjuncts — complements are event-dependent thematic roles while adjuncts modify an event or its participants, or are perspective-dependent thematic roles (Dowty, 1991) — the two also differ from each other with respect to the constancy of their semantic contribution. "In general, a given adjunct can co-occur with a relatively broad range of heads while seeming to make a more-or-less uniform contribution to semantic content across that range." (Pollard and Sag, 1987, p. 136) Complements can typically only occur with a small and often semantically restricted class of verbal heads, and "the semantic contribution of the complement is idiosyncratically dependent upon the head." (Pollard and Sag, 1987, p. 136). The same difference seems to obtain between at least some phrases headed by serial items and complements. In the example in (110) the phrase *go*

LOCP always contributes the meaning "movement away from the point of reference" to the proposition it combines with while Menundu in (111) changes its semantic contribution depending on the verbal head it is a complement to. In (111a) it denotes a recipient and in (111b) it denotes the object.

(110) a. a waka go a kii osu. (Ndyuka)
she walk go LOC kill house
'She went to the burial house.'

b. a hali a pen go na a pampila tapu.
she pull DET(sg) pen go LOC DET(sg) paper top
'She pulled/dragged the pen to the top of the paper.'

(111) a. a seni Menundu a buku. (Ndyuka)
he send Menundu DET(sg) book.
'He sent Menundu the book.'

b. a sii Menundu.
he see Menundu
'He saw Menundu.'

This suggests that at least some serial phrases such as those in motion/change of state SVCs can be identified as adjuncts on the basis of the fact that their semantics is relatively more constant than that of complements.

A third difference between adjuncts and complements involves their ability to be iterated. "In general, two or more instances of the same adjunct type can combine with

the same head [...], but this is impossible for complements [...]." (Pollard and Sag, 1987, p. 136). That is, since adjuncts do not fill an obligatory or optional thematic role of the verbal head, it is possible for a verb to select several instances of the same (or of different) adjuncts. Complements on the other hand fill thematic roles of the verbal head. Once the thematic roles of a verb are filled with specific NP/PPs other NPs/PPs which could potentially fill these thematic roles too cannot be selected by the verbal head any more. This difference also obtains between complements and at least some phrases headed by serial items such as serial phrases indicating the direction, origin etc. of some motion, serial phrases introducing a standard of comparison. As shown in the example in (112a), several phrase headed by the serial item *go* LOCP can be combined with the verb *waka* and the VP headed by *waka* remains a VP. In the case of (112b), however, once *fu a sikoo toli* fills the theme role of the verbal head, the (possible) theme NP *fu a goon toli* cannot be selected any more by *kuutu* because its theme role is already filled, see the unacceptable A reading. The only way to select it is as a coordinate of *fu a sikoo toli*. That is, if both complements fill the same theme role together as two coordinated PPs, see the acceptable B reading.

(112) a. den waka go a osu go a ini a
they walk go LOC house go LOC in DET(sg)
kuku. (Ndyuka)
kitchen
'They walked to the house and into the kitchen.'

b. a kuutu fu a sikoo toli, fu a
he complain for DET(sg) school story for DET(sg)
goon toli. (Ndyuka)
field story

*A: 'He complained about the school business, about the field business.'

B: 'He complained about the school and the field business.'

The preceding discussion suggests that there are some criteria which may be used to determine whether a given phrase (headed by a serial item) is a complement to the main verb of the construction or whether it is an adjunct. But these criteria do not, however, uniformly apply to all SVCs and SVCs may even display different syntactic relationships. The following discussion uses these criteria to determine the relationship between the main verb in a SVC and the serial phrase in the Ndyuka and Gbe data.

4. 4. 4. The relationship between the main verb and the serial phrase in the Ndyuka and Gbe data

This section discusses the relationship between the main verb in a SVC and the serial phrase. The analysis suggests that there are essentially two types of relationships: a head-complement relationship and an adjunction relationship.

The following serial items seem to introduce complements of the main verb of the construction:

(a) those headed by 'give' in which 'give' introduces a recipient or goal, an experiencer, a (human) source of some entity, and a theme, and possibly a benefactor,

(b) those headed by 'say' in which 'say' introduces the theme argument of utterance, cognition and perception verbs,

(c) those headed by 'pass' in which 'pass' in Gbe introduces a means or mediator.

The reasons are as follows: First, they introduce event-related thematic roles. Second, their semantic content is not dependent on their relative order to other constituents in the sentence as shown in (113).

(113) a. den kuutu gi mi fu a biifi. (Ndyuka)
they complain give me for DET(sg) letter
'They complained to me about the letter.'

b. den kuutu fu a biifi gi mi.
they complain for DET(sg) letter give me
'They complained about the letter to me.'

Third, they cannot be iterated like adjuncts (114)

(114) a. *a sii taki a booko taki a kai. (Ndyuka)
she see SI it break SI it fall

The proposed constituent structure for the above SVCs is given in (115).

(115) a. [$_S$ [$_{NP}$ mi] [$_{VP}$ [$_V$ seli] [$_{NP}$ a osu] [$_{PP}$ gi en]]] (Ndyuka)

b. [$_S$ [$_{NP}$ u] [$_{VP}$ [$_V$ sa] [$_{NP}$ xwe ɔ] [$_{PP}$ nii]]] (Gbe, Maxi)

'I sold the house to her.'

The following serial items which seem to be adjuncts to the main verb include:

(a) those headed by 'give' in which 'give' introduces a substitute, a chargee, a purpose,

(b) those headed by 'outdo',

(c) those headed by 'overtake',

(d) those headed by resultative verbs like 'break',

(e) those headed by serial items like 'go', 'come', 'lontu', 'come from', 'arrive', 'put',

(f) those headed by 'pass' in which 'pass' indicates a direction in Ndyuka and Gbe and excessiveness in Ndyuka.

The reasons are as follows: First, they do not introduce event-oriented roles. They seem to modify the proposition expressed by the verbal head of the SVC — 'go' for example introduces the direction of the movement denoted by the main verb — or they introduce perspective-oriented roles — '$give_3$' for example introduces the person for whom the action denoted by the main verb was carried out. Second, their semantic contribution is relatively constant across contexts and not idiosyncratically dependent upon the head. That is, phrases headed by 'go', for example, always indicate some movement away from the point of reference. Third, some of the serial phrases may also be iterated (116).

(116) a pikin ya koni moo mi moo en ppa.
DET(sg) child here intelligent SI me SI her father
'This child is more intelligent than me, than his father.' (Ndyuka)

The constituent structure of the SVCs in which the serial phrase modifies the semantic content of the verbal head such as those headed by the serial items 'go', 'come', 'around',

'pass', 'come from', 'arrive', 'put', resultatives in Ndyuka and Gbe, and 'overtake' indicating excessiveness in Ndyuka can be represented as in (117) using *go* XP serial phrases as illustration.

(117) a. [S [NP den sikoutu] [VP [VP [V post] [NP a uman]] [serial phrase go a sanan]]]
'The policemen send the woman (against her will) to Surinam.'
(Ndyuka)

b. [S [NP e] [VP [VP [V kun] [NP mɔto ɔ]] [serial phrase yi kutɔnu]]]
'She drove the car to Cotonou.' (Gbe, Maxi)

The constituent structure of SVCs in which the serial phrase introduces non-event-oriented thematic roles such as those headed by 'outdo', 'overtake', 'say' introducing content or reason phrases, 'give' introducing substitutes, chargees, purposes can be represented as in (118).

(118) a. [S [NP den pikin] [VP [VP [V baka] [NP kasaba]] [PP gi a mma de]]]
'The children baked cassava bread in place of that elderly woman.'
(Ndyuka)

b. [S [NP eglesi ɔ] [VP [VP [V lɛ] [NP gle]] [PP ni fi tɔ e]]] (Gbe, Maxi)
'The farmer weeded the field in place of his children.'

It is not quite clear to me at this point how to analyze SVCs in which the serial item is the syntactic head of the construction. In constructions in which 'take', 'carry', 'accompany' function as a serial item it seems best, following Veenstra (1996), to assume

that the VP following them functions like a manner or change of state or possession-denoting adjunct to them. The proposed constituent structure is give in (119).

(119) a. [s [NP a] [VP [VP [V teki] [NP a beele]] [serial phrase koti]]] (Ndyuka)
'She intentionally cut the bread.'

b. [s [NP kɔku] [VP [VP [V sɔ] [NP afɔkpa]] [serial phrase mlɛn ɖo]]]
'Koku intentionally hid the shoes.'

4. 5. Summary and conclusion

The discussion of SVCs in Ndyuka and Gbe revealed the following similarities (120) and differences (121) between them.

(120) Properties shared between SVCs in Ndyuka and Gbe:

1. General similarities:
   a. SVCs can be said to consist of one syntactic and usually also semantic head.
   b. The other verb, the serial item, performs functions that are not typically associated with verbs: It modifies the proposition denoted by the verbal head or introduces some of its semantic roles.
2. Syntactic similarities:
   a. The serial items fall into three groups with respect to their categorial status: Some of them are verbal, others are prepositions, but the largest group seems to be neither unambiguously verbal nor prepositional.

   b. Some of the serial phrases are complements to the main verbs, others seem to be adjuncts to the main verb.
3. Semantic similarities:
   a. Both languages have the same range of motion/change of location denoting SVCs and the serial items perform very similar functions. They indicate the direction, the origin and the limit of the motion denoted by the main verb of the construction.
   b. Both languages have a similar range of thematic-role-introducing SVCs. The serial items introduce recipient, benefactive, substitutive, experiencer, source, theme, purpose roles ('give'), instrumental ('take'), commitative ('carry'), theme, reason, content ('say'), standard of comparison ('outdo', 'overtake') of the verbal head of the construction.
   c. In both languages, there are serial items which also introduce the theme, possessor ('give'), and content ('say') of NPs.
   d. Both languages also have resultative SVCs which involve the same range of main verbs and serial items.

(121) Properties *not* shared between SVCs in Ndyuka and Gbe:

1. Semantic differences:
   a. In Gbe the serial item 'come from' can also introduce the temporal origin of some action or state while in Ndyuka it cannot.

b. In Gbe the serial item 'pass' can introduce the mediator or means of a proposition while in Ndyuka it cannot.

c. In Gbe the serial item 'carry' cannot introduce a commitative role in all varieties of Gbe but must be replaced by an item meaning 'accompany'.

d. In Ndyuka the serial item 'overtake' can be used to express excessiveness when it is not followed by a NP while in Gbe it does not seem to be able to perform this function.

2. Structural differences:

a. 'Outdo' in Ndyuka precedes the main verb when it introduces an implied standard of comparison which in Gbe it does not.

The discussion of SVCs in Ndyuka and Gbe suggest that they are semantically and syntactically very similar to each other suggesting that SVCs in the SPC were probably modeled on SVCs in Gbe.

It is not quite clear what the reasons for the differences between SVCs and Ndyuka and Gbe are. In the case of property 1.a in (124) it is possible that the lexical item *sinsi* 'since' was already present in the varieties of English and was simply taken over into the SPC so that *komoto* was not used to express this meaning. Or 'come from' in Gbe only acquired this meaning after 1720. With respect to property 1.b it might be that 'pass' in Gbe acquired this function after 1720 or this function was not taken over by *pasa* in Ndyuka, or it has been lost in later Ndyuka. Property 1.c in (124) might either indicate that the SPC was modeled more closely on some varieties of Gbe than on others, or,

which is more likely, that the lexical items for 'to carry' and 'to accompany' were merged in the SPC receiving only one lexical entry. Property 1.d might be the result of extension in Ndyuka (and the SPC). Property 2.a in (124) is probably the result of influence from varieties of English. In English *more* as a comparative marker also precedes the predicate.

The analysis suggests also that in this area of grammar the varieties of English were possibly the sources for some of the semantic properties of the lexical items as well as their phonological shapes.

On the whole, however, it seems that SVCs in Ndyuka (and the SPC) are clearly modeled on those in its Gbe substrate.

CHAPTER 5

SUBSTRATE INFLUENCE IN COPULAR AND ASCRIPTIVE CONSTRUCTIONS

5. 0. Introduction

In this chapter I discuss and compare copular and ascriptive constructions in the Ndyuka and in the Gbe varieties to determine the influence the Gbe varieties had on the formation of this area of grammar in the SPC. This chapter is organized as follows: First, it provides a definition of such constructions. Second, it briefly reviews the literature on the formation of this area of grammar in creoles. Third, it describes these constructions in Ndyuka and Gbe and discusses the evidence in favor of substrate influence in this area of grammar.

5. 1. Copular constructions: A definition

Copular constructions typically involve structures of the kind exemplified by the schemata in (1) taken from Lyons (1977, p. 469).

(1) 1. NP (+COP) + NP (equative)
2. NP (+COP) + ADJ (ascriptive)
3. NP (+COP) + LOC (locative)
4. NP (+COP) + POSS (possessive)

The schemata in (1) can be exemplified by sentences from English as in (2).

(2) 1. a. Kim is a linguist.
b. Kim is the chairperson.
2. Kim is tall.
3. Kim is at work/here.
4. The dog is Kim's.

As indicated by the parentheses in (1), the copula element in these constructions is not obligatory in all languages as it is in English (see the examples in (2)). In some languages none or only some of these constructions involve a copula element. In yet other languages all or part of the constructions in (1) involve the same copulas.

According to Lyons (1977), the copula has been defined as "a meaningless lexeme whose syntactic function is to convert whatever it combines with into a verbal (i.e. predicative) expression" (p. 471). But this does not mean that all copulas are verbal since he also remarks that there are languages, particularly those languages in which the copula

is optional, in which "the reasons for classifying the copula as a verb are not as compelling as they are in the Indo-European languages" (p. 471). According to Li and Thompson (1977), writing about Chinese, Hebrew, Palestinian Arabic, and Wappo, and Luo (1991) writing about Chinese, the copula element used in equative constructions may develop from a non-verbal element, a demonstrative, and still show varying degrees of its non-verbal origin when it is already functioning as a head of a predicative phrase.

5. 2. The nature and development of copular constructions in Caribbean English-lexified creoles

The constructions in (1) have a different structure in Caribbean English-lexified creoles than in English. As shown in the examples in (3) from Belize Creole equative (3.1) and locative (3.3) constructions involve different kinds of copulas, ascriptive (3.2) constructions typically do not involve a copula at all, and possessive (3.4) constructions involve the same copula as equative (3.1) constructions.

(3) 1. a. den da bɪg sneks. (Belize Creole)

they COP big snake

'They are big snakes.'

b. da kaaf da i bʊl kaaf.

that calf COP his bull calf

'That calf is his bull calf.'

2. de pus, den Ø ʃap.

DET(pl) cat they COP sharp

'Cats are intelligent.'

3. di oldes gyal de da kamalɔt.

the oldest girl COP LOC name

'The oldest girl is at Camalotte.'

4. dɪs hol pis a laan da fo yu?

this whole piece of land COP for you

'This whole piece of land is yours?' (Migge, 1995, p. 63)

This difference in the distribution of copula elements in the predicative constructions in (1) between Caribbean English-lexified creoles (3) and English (2) have led researchers on these creoles to assume that this area of grammar was most likely not modeled on English. Two broad views about the origin of this difference in the distribution of copula elements in the predicative constructions in (1) have arisen: First, Arends (1989) maintains that it is the result of substrate influence while McWhorter (1993, 1997a&b) argues that it is the result of an independent, non-substrate-driven development.[1]

Arends (1989) argues on the basis of diachronic data (1650-1950) from Sranan that the copula elements and their distribution in Sranan Tongo developed gradually and that both their emergence and their distribution are the result of calquing on (Kwa) substrate

[1]In my exposition of his point of view I refer primarily to McWhorter (1997a) since it is the most recent and the most comprehensive exposition of his point of view.

patterns. That is, although *da* and *de* emerged as the result of an internal process of grammaticalization, their emergence was probably triggered by substrate patterns and their distribution was modeled on the copulas found in the substrate of Sranan Tongo. He suggests the following stages of development:

(4) The development of copular and ascriptive constructions according to Arends (1989)

a. Early Sranan Tongo did not employ any copulas in any of the structures in (1).

b. The locative copula *de* was reanalyzed from the locative adverb *de* in predicative existential contexts (see section 5.5.1 for examples) and the nominal copula *da* was reanalyzed from the focus marker functioning as a resumptive pronoun in topic-comment constructions (see section 5.4.1 for examples).

c. The copula *de* then spread to some adjectival, possessive, and some nominal environments.

d. *da* became established in equative constructions expressing identification and *de* came to replace *da* in equative environments expressing class membership and in tensed and negative identification-denoting constructions.

e. Copula absence preceding adjectives was maintained in predicative position.

McWhorter (1997a) also maintains that the copula elements and their distribution in English-lexified creoles developed gradually as the result of a language internal process of grammaticalization or reanalysis. He also agrees that the regular absence of copulas preceding property-denoting items such as predicative adjectives and the syntactic properties of such items in Saramaccan and other creoles is modeled on the syntactic properties of such items in their substrate (McWhorter, 1997a, p. 85). Unlike Arends (1989), he argues, however, that neither the emergence — the process of grammaticalization or reanalysis — nor the distribution of the copula morphemes was the result of substrate claquing (McWhorter, 1997a, p. 118).

He suggests the following path of development for the copulas *da* and *dɛ* in Saramaccan on the basis of synchronic and diachronic data from Saramaccan and other languages:

(5) The development of copular and ascriptive constructions according to McWhorter (1997a)

a. In early Saramaccan and its precursors no overt copulas were found in the language.

b. Adverbial *dɛ* in its deictic function is reanalyzed as a copula in predicative locative constructions, and then spread to all, including identificational, copular contexts.

c. *da* is reanalyzed from the distal demonstrative functioning as a resumptive pronoun in topic-comment constructions as an identificational copula.[2]

The aim of the rest of this chapter is to follow up on Arends' (1989) claim that the substrate played an important role in the development of the copula domain in English-lexified creoles, specifically the Surinamese creoles by comparing this area of grammar in Ndyuka and Gbe. Specifically, I show that, contrary to claims made by McWhorter (1997a), the organization of the constructions in (1), and the distribution and the syntactic and semantic properties of *(d/n)a* and *de* in Ndyuka and Gbe are very similar which suggests that this area of grammar in the SPC must have been closely modeled on that in Gbe. The discussion is structured as follows: In section 5. 3 I briefly compare the general organization of the predicative constructions in (1) in Ndyuka and Gbe to show that they are highly similar. In section 5. 4 I discuss the conventional wisdom about the origin and the emergence of *(d/n)a* and propose a new analysis based on a comparison of predicative equative constructions in my Ndyuka and Gbe data. In section 5. 5. I discuss the conventional wisdom about the origin and the emergence of *de* and propose a new analysis based on a comparison of constructions involving *de* in Ndyuka and its counterparts in Gbe. In section 5. 6 I discuss the syntactic and semantic properties of so-

[2]He proposes that "da emerged either simultaneously with *dɛ* or after *dɛ* had become established." (McWhorter, 1997, p. 113)

called adjectives functioning as verbs in Ndyuka and Gbe to show that this area of grammar in the SPC was modeled on that of Gbe. Section 5. 7 summarizes the findings.

5. 3. The general organization of predicative constructions in Ndyuka and Gbe

The examples in (6-7) exemplify predicative constructions in Ndyuka and Gbe.

(6) 1. a. we den mma seefi na wan lau ede
EMPH their mother self COP one crazy head
sama.
person
'Even their mother is a crazy person.' (Ndyuka, PM2a)

b. mi na T. A.. (Ndyuka)
I COP T. A.
'I am T. A..'

2. a dda siki. (Ndyuka, OK3a)
DET(sg) father sick
'The old man is sick.'

3. a mma de ne en osu. (Ndyuka, PM12a)
DET(sg) mother COP LOC her house
'The woman is in her house.'

4. den disi ya na fu u a busi konde ya.
DET(pl) this here COP for us LOC bush village here

'These (things) are for us in the interior here.' (Ndyuka, PM2a)

(7) 1. a. kpɑ́cɑ̄ nyi kpé. (Gbe, Aja1)

knife COP stone

'The knife was a stone.'

b. mɛ cǐ só yi nyi tõgbyānyi. (Gbe, Aja1)

person REL leave FOC COP name

'The person who left was Togbyanyi.'

2. é nā sɑ́vɔ gānjǐ. (Gbe, Maxi2)

it FUT big well

'It will be quite large.'

3. ixhe mɔ de dɔ mɛ kliya. (Gbe, Xwela1)

fish PAST COP net in IDEO

'Fish were in the net in great quantity.'

4. mɔto ɔ nyi kɔjo tɔn. (Gbe, Maxi)

car the COP name POSS

'The car is Kojo's.'

The examples in (6-7) show that the predicative constructions in (1) have a similar organization in both Ndyuka and Gbe: In both languages locative and equative constructions involve different copulas and adjectival items typically do not involve any copula items at all, and possessive predication employs the same copula as nominal

predication. In addition, contrary to claims made by Arends (1989) for Sranan Tongo and McWhorter (1997a) for Saramaccan, the Ndyuka as well as the Gbe varieties employ the same copula for predicating a NP whose referent is a member of a class (6&7.1a) and a referent who is identical to the subject (6&7.1b) (see below for more discussion). These close similarities suggest that this area of grammar in the SPC was most likely modeled on that of Gbe.

Researchers on the copula domain in the Surinamese creoles (Arends, 1989; McWhorter, 1997a) and on other creoles (Pochard and Devonish, 1986) have, however, pointed out that the organization of this area of grammar and the distribution of the copula elements in creoles is not as neat as the examples in (6) might suggest. In the following sections I therefore examine the distribution of the two copula elements and copula absence in more detail in both Ndyuka and Gbe.

5. 4. The copula *(d/n)a*

In this section I present the reanalysis scenario that has been widely accepted to be at the origin of the copula function of *(d/n)a* and argue on the basis of synchronic evidence from Ndyuka and Gbe that the copula function of *(d/n)a* probably did not emerge as the result of this reanalysis process. The present analysis suggests that the structure of predicative equative and possessive constructions and the functions of *(d/n)a* in Ndyuka (and the SPC) probably emerged as the result of substrate influence from Gbe.

5. 4. 1. The conventional wisdom about the origin of *(d/n)a*

All researchers (Arends, 1989, 1986; Escure, 1985, 1993; McWhorter, 1997a; Migge, 1995; Pochard and Devonish, 1986; Winford, 1993) working on the copula *a* and its variants *na* and *da* in English-lexified creoles agree that it derived from the distal demonstrative *da(t(ti))* functioning as a resumptive pronoun or as a presentative marker in topic-comment constructions.[3] The process is described as follows: First, there were no copulas employed in constructions involving nominal predication in the early stages of creole development. The language, however, employed a distal demonstrative (that) as a resumptive pronoun in topic-comment constructions of the kind illustrated in (8).

(8) [Granman] [da Ø Kofi] (The granman, it's Kofi)
leader that COP name
TOPIC COMMENT (adapted from McWhorter, 1997a, p. 97)

Over time, the (contrastive) intonation pattern is lost and the focus or resumptive pronoun semantics of *da* becomes bleached and a reanalysis or rebracketing of the sentence in (8) takes place. The topic now becomes perceived as the subject, and the distal demonstrative is analyzed as a copular item and the NP following it, part of the comment, becomes interpreted as the complement of the copula (9).

[3]In Ndyuka and Sranan Tongo *na* and *a* cooccur, in Saramaccan and Belize Creole *da* is found. *a* is widely found in other Caribbean English creoles.

(9) [Granman] [da] [Kofi] (The granman is Kofi)
SUBJECT COP COMPLEMENT
SUBJECT PREDICATE (adapted from McWhorter, 1997a, p. 97)

This path of development of the nominal copula is commonly found in a number of languages including Chinese, Hebrew, Palestinian Arabic, Wappo (Li and Thompson, 1977; Luo, 1991).

McWhorter (1997a) and Arends (1989) draw the following conclusions from the above scenario of the emergence of *(d/n)a*: First, *(d/n)a* in predicative equative constructions is a copula in modern English-lexified creoles, specifically the Surinamese creoles. Second, the copula function of *(n/d)a* in the Surinamese and other English-lexified creoles developed as a result of the process of reanalysis presented in (8-9). Third, McWhorter (1997a) takes the fact that the nominal copula must have emerged as the result of a (creole-internal) process of reanalysis or grammaticalization as evidence of the fact that the substrate did not play a role in its emergence.

My own analysis of predicative equative constructions in Ndyuka and Gbe suggests the following things: First, *(n)a* in Ndyuka cannot be unequivocally classified as an equative and possessive copula in predicative equative and possessive constructions. It seems to be bifunctional in Ndyuka: Its primary function is that of a presentational and identificational focus marker marking identificational and presentational focus and its secondary function is that of a copula in some equative and possessive constructions. Second, equative and possessive constructions in Ndyuka are generally expressed as

topic-comment constructions in which *(n)a* functions as a presentational focus marker marking the comment NP. Third, the bifunctionality of *(n)a* in Ndyuka did probably not emerge as the result of the reanalysis scenario presented in (8-9) but seems to be the result of substrate influence from Gbe.

5. 4. 2 The functions of *(n)a* in Ndyuka

Possible counter-evidence to the reanalysis account given in (8-9) may be seen in the fact that *(n/d)a* in modern Ndyuka and in other English-lexified creoles such as Belize Creole seems to function primarily as a identificational and a presentational focus marker rather than as a copula.[4] In the constructions in (10) *(n)a* marks an identificational focus. "An identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds." (Kiss, 1998, p. 245). It may or may not be contrastive and it is typically associated with constituent movement.

In the constructions in (11) *(n)a* marks an informational or presentational focus. This type of focus differs from identificational focus in the following ways: First, a presentational focus presents new, non-presupposed information "without expressing

[4] *(d/n)a* may also function as locational makers (Belize Creole: i gaan *da* skuul *da* limonal. 'He went to school in Limonal.') in English-lexified creoles. It is not clear whether this usage of *(d/n)a* is related to its focus and presentative marker function (but see Pochard and Devonish (1986) for a possible relationship between them).

exhaustive identification performed on a set of contextually or situationally given entities" (Kiss, 1998, 246). Second, "information focus is not associated with [constituent] movement." (Kiss, 1998, 246). Third, it is not contrastive.

(10) a. U: di Bowta be de, sani a be
when name PAST COP thing NEG PAST
dii so.
expensive so
'When Bowta was there, things weren't that expensive.'

F: We, ne en meke a sani
EMPH FOC him make DET(sg) thing
dii. (Ndyuka, OK2a)
expensive
'It was HE that made things expensive!'

b. da tu de kɪl. (Belize Creole)
FOC two they kill
'It's TWO they killed.' (adapted from Migge, 1995. p. 69)

(11) a. a du fu aputeiki. (Ndyuka, PM17b)
PRE one POSS name
'It's Aputeiki's thing.'

b. na on pisi? (Ndyuka, PM11a)
PRE QP piece

'It's where?'

c. na a lai fu B. tog. (Ndyuka, PM 12b)
PRE DET(sg) load POSS name DM
'It's B.'s load!'

The constituents that may be focused by *(n/d)a* in its identificational (12a-b) and presentational (12c-d) focus function are not restricted to NPs; other constituents such as PPs, adverbs, may also be focused by it (Arends, 1989; Migge, 1995; Pochard and Devonish, 1986) (12). In its identificational focus function *(n/d)a* may also focus verbs (12b).

(12) a. na ape mi siibi. (Ndyuka, OK2a)
FOC there I sleep
'I slept THERE.'

b. na lei i lei gi mi. (Ndyuka)
FOC lay you lay about me
'You LIED about me.'

c. na so! (Ndyuka, OK4a)
PRE so
'It's like that.'

d. na a osu ini! (Ndyuka)
PRE/LOC DET(sg) house in
'It's in/inside the house.'

My Ndyuka data shows that *(n)a* also functions commonly as a presentational marker in constructions in which the referents of two NPs are linked to each other (13) and in constructions in which an entity is linked to its possessor (14). Such constructions have traditionally been analyzed as equative and possessive (copular) constructions respectively.[5]

(13) a. [they are discussing the overdue arrival of B., a well-known political leader of Surinam, in the village and suggest that his being late is a sign of bad public relations when someone suggests]
B., na koniman. (Ndyuka, PM11b)
name PRE intelligent.man
'B., its/he's an intelligent man.'
[he is not a bad politician, he doesn't come at the set time because he doesn't want a crowd around him when he performs his rituals]

b. [they are discussing whether Europeans also use cold water when some one suggests]
ala diingi wata seefi, na waan wan.
all drink water even PRE warm one
'Even all (the) drinking water, it's warm water.'
(Ndyuka, PM 12a)

[5]I found a similar indication in conversational data from Belize Creole.

(14) a. disi, a fu T. (Ndyuka, OK3a)

this PRE POSS name

'This (one), it's T.'s.'

b. Baa J., a fu M.. (Ndyuka, OK2a)

brother name PRE POSS name

'Bother J., he's M.'s (son).'

The constructions in (13-14) are topic-comment constructions rather than typical equative/possessive subject-copula-complement constructions. In (13-14) the subject and the possessed NP respectively are expressed as topics and the predicates are expressed as comments consisting of the presentational focus marker *(n)a* and the (possessor) NP. Both the topic and the comment have their own intonation contour — indicated by the comma — and the comment NP and *(n)a* are stressed.

In topic-comment constructions in which the identity relationship between two referents or the possessive relationship between an entity and its possessor are stressed or (re)affirmed — so-called identificational equative constructions — *(n)a* in its identificational focus marker function precedes or marks the topic and *(n)a* functioning as a presentational focus marker precedes or marks the comment (15).

(15) a. ne en, na a moo bunkopu wan.

FOC it PRE DET(sg) more cheap one

'It's it that is the cheapest one.' (Ndyuka, OK2b)

b. na a osu ya, a fu u.

FOC DET house this PRE POSS us

'THIS HOUSE, it's our's.' (Ndyuka)

The above data suggest that ***(n)a*** cannot be unequivocally characterized as a equative and possessive copular element in Ndyuka since it (more) frequently performs other though related functions: ***(n)a*** in modern Ndyuka (and Belize Creole) is best analyzed as a bifunctional element whose primary function is that of an identificational and a presentational focus marker and its secondary function is that of a copular element in some equative and possessive constructions, see the examples in (6).

5. 4. 3. A possible origin for *(n)a* in Ndyuka

In this section I propose that ***(n)a***'s distribution in Ndyuka is due to influence from its primary substrate, the Gbe group of languages. I present the following evidence in support of this analysis: First, as in Ndyuka, most Gbe varieties use both topic-comment and subject-copula-complement constructions to link the referents of two NPs and an entity to its possessor. Second, as in Ndyuka, the presentational focus markers in the Gbe varieties may function as the sole predicators in predicative equative and possessive constructions which have a topic-comment structure. Third, one of the presentational focus markers in Gbe, *(e)nyi*, may, like *(n)a* in Ndyuka, also function as an equative and possessive copula. Fourth, in some Gbe varieties, as in Ndyuka, the presentational focus marker may also function as an identificational focus marker. Fifth, as in Ndyuka, in Gbe

identification-denoting equative constructions may be differentiated from class membership-denoting equative constructions by combining the topic NP in the former constructions with the indentificational focus marker.

5. 4. 3. 1. Equative and possessive constructions in Gbe

The data from the different varieties of Gbe suggest that equative and possessive propositions in Gbe may be expressed as subject-copula-complement constructions (16) and as topic-comment constructions (17) as in Ndyuka.

(16) a. C. nyi cica. (Gbe, Aja1)
name COP teacher
'C. is a teacher/professor.'

b. oma ya nyi tɔ nyə. (Gbe, Waci)
book this COP POSS my
'This book is my book.'

(17) a. vijiní ma, mə nyɔnú nyí ó. (Gbe, Waci1)
name that NEG woman PRE EMPH
'That Vijini, she's not a woman.'

b. (oma ya) tɔ nyə nyi. (Gbe, Waci)
book this POSS my PRE
'This book, it's mine.'

Equative and possessive propositions which are expressed as topic-comment-type constructions in Gbe have a similar structure as in Ndyuka: The subject and the possessed NP respectively are expressed as topics and the predicates are expressed as comments consisting of a presentational focus marker and the (possessor) NP. Both the topic and the comment have their own intonation contour — indicated by the comma — and the comment NP and the presentational focus marker are stressed. However, unlike in Ndyuka, in most varieties of Gbe there are two kinds of presentational focus markers which may be used to link two NP referents, and an entity and its possessor: *(e)nyi* (A, W, M, X), and *wɛ* (M), *yɔ* (A), *(y)e* (W), and *nɛ* (X). My Gbe data suggest that *(e)nyi*, similar to *(n)a* in Ndyuka, is bifunctional: It may function as a presentational focus marker in presentative (18) constructions, in topic-comment constructions in which the referents of two NPs are related to each other (17a) and in which an entity is linked to its possessor (17b), and as a equative and possessive copula (16).

(18) a. kofi nyi. (Gbe, Waci)
name PRE
'It's Kofi.'

b. e-nyi kpe. (Gbe, Aja1)
it-is stone
'It's a stone.'

c. tɔ nyə nyi. (Gbe, Waci)

POSS my PRE

'It's mine.'

Unlike *(n)a* in Ndyuka, *(e)nyi* does not seem to be able to function as a presentational focus marker for other constituents such as PPs and adverbs. In addition, unlike *(n)a* in Ndyuka, *(e)nyi* may either precede (18b) or follow (18a&c) the constituent that it is presenting. When *(e)nyi* precedes the constituent it is presenting, it is preceded by the dummy subject *e* (18b).

My Xwela Gbe data only include a few instances of *(e)nyi* functioning as a presentational focus marker, or as a copula in untensed equative and possessive constructions. According to my informant, it is infrequently used in these functions and generally has a more specialized meaning: *nyi* seems to mean 'to become' (19a) or 'to be called' (19b) in such constructions in Xwela.

(19) a. kofi nyi cica. (Gbe, Xwela)

name COP? teacher

'Kofi became/has become a teacher.'

b. evĭ etɔ́ amú é nyĭ. (Gbe, Xwela1)

child his what he COP?

'His child, what is he called?'

Besides *(e)nyi*, there is also another presentational focus marker in the varieties of Gbe: *yɔ* in Aja, *wɛ* in Maxi and Fon, *(y)e* in Waci, and *nɛ* in Xwela. In the Maxi and Waci varieties *wɛ* (M) and *(y)e* (W), like *(n)a* in Ndyuka, may function as both identificational (20) and as presentational (21) focus markers. As identificational focus markers they may focus a variety of constituents such as NPs (20a), LOCPs (20b), verbs (20c), and adverbs.

(20) a. nuxo owe wɛ ɖɔ̃ adūgú fi din.

thing-dance two FOC COP name here now

'There are TWO dances at Adugu here now.' (Gbe, Maxi1)

b. lə aɸə a mə ye e nɔ aha.

LOC house DET in FOC he drink alcohol

'IN THE HOUSE he drank alcohol.' (Gbe, Waci)

c. nu wɛ e nu bia ɖo xwe sɔ.

drink FOC he drink beer LOC house yesterday

'He DRANK beer at the house yesterday.' (Gbe, Maxi)

As presentational focus markers, like *(n)a* in Ndyuka, they my focus NPs (21a), LOCPs (21b), and adverbs in presentative constructions (21) and they may present or mark the comment NP in topic-comment constructions in which the referents of two NPs (22a-b), and an entity and its possessor (22c-d) are linked.

(21) a. garomə cica we. (Gbe, Waci)

name teacher PL-PRE

'It's the teachers of Garome.'

b. xɔ gudo wɛ. (Gbe, Maxi)

house behind PRE

'It's behind the house.'

(22) a. D., əgbədotɔ a le UNB ye. (Gbe, Waci)

name professor DET LOC UNB PRE

'D. its/he's the (only) professor at the *univeristé national du Benin.*'[6]

b. emɛ ɔ, tă tuwe wɛ. (Gbe, Maxi1)

person DET father your PRE

'The person, it's/he's your father.'

c. mɔto ɔ kɔjo tɔn wɛ. (Gbe, Maxi)

car DET Kojo POSS PRE

'The car, it's Kojo's.'

d. mɔto a kɔjo ye. (Gbe, Waci)

car DET Kojo PRE

'The car, it's Kojo's.'

[6]My Waci informant indicated that the usage of *(y)e* often suggests exhaustiveness which might suggest that *(y)e* possibly functions as an identificational focus marker here. My Maxi informant did not suggest this.

Unlike *(n)a* in Ndyuka, however, *wɛ* (M) and *(y)e* (W) in Gbe always follow the constituent they focus.

The presentational focus marker *yɔ* in Aja presents or marks constituents in presentative constructions (23) and the comment in topic-comment constructions in which the referents of two NPs (24a), and an entity and its possessor (24b) are linked.

(23) yɔvo yɔ. (Gbe, Aja)

European PRE

'It's a European.'

(24) a. xɔ̃gbɔ́nū tado jū yɔ̃. (Gbe, Aja1)

Hogbounou Tado village PRE

'Hogbounou, it's a Tado village.'

b. zo keke lɔ, toma tɔ yɔ. (Gbe, Aja)

fire bike DET Thomas POSS PRE

'The motorbike, it's Thomas'.'

Unlike *(n)a* in Ndyuka and *wɛ* and *(y)e* in the Maxi and Waci varieties of Gbe, *yɔ* in Aja may *not* function as an identificational focus marker. In addition, unlike *(n)a* in Ndyuka, *yɔ* always follows the constituent it focuses.

In the Xwela variety of Gbe, as in Ndyuka, equative and possessive propositions are primarily expressed as topic-comment constructions. Like *(n)a* in Ndyuka, the presentational focus marker *nɛ* which generally marks the comment NP in such

constructions seems to be derived from to the distal demonstrative *enɛ* 'that'. *Nɛ* in Xwela presents or marks constituents in presentative constructions (25a) and the comment in topic-comment constructions in which the referents of two NPs (25b-c) and an entity and its possessor (25d) are linked. In this respect it is also similar to *(n)a* in Ndyuka and to *yɔ* (A), *wɛ* (M), and *(y)e* (W) in the other varieties of Gbe.

(25) a. xomanti nɛ! (Gbe, Xwela)
pen PRE
'It's a pen.'

b. mɔniki nɔ, kɔkukɔdji tɔ nɛ a?
name mother name inhabitant PRE QP
'Moniki's mother, she's from Kokukodji?' (Gbe, Xwela1)

c. nahue lɔ, glegbe nu nɛ lo.
woman DET country-side person PRE EMPH
'The woman, she was a country-side person!' (Gbe, Xwela1)

d. osin exe ɔ ŋtɔ nɛ. (Gbe, Xwela)
house this DET mine PRE
'This house, it's mine.'

Unlike *(n)a* in Ndyuka and *wɛ* and *(y)e* in the Maxi and Waci varieties of Gbe, it may not function as an identificational focus marker. In this respect it is similar to *yɔ* in Aja.

This section strongly suggests that the Gbe varieties provided the model for equative and possessive constructions in Ndyuka (and the SPC) and for the syntactic behavior of *(n)a* in the SPC for the following reasons: First, in both Ndyuka and Gbe equative and possessive propositions are either expressed as subject-copula-complement constructions or (more frequently) as topic-comment constructions. Second, the alleged copula *nyi* in Gbe, like *(n)a* in Ndyuka, seems to be a bifunctional element: its primary function is that of a presentational focus marker, and its secondary function is that of a copula in equative and possessive structures. *Nyi* in Gbe may, however, not function as an identificational focus marker like *(n)a* in Ndyuka. In each Gbe variety there is, however, another presentational focus marker which is also frequently used in topic-comment constructions, *yɔ* (A), *wɛ* (M), *(y)e* (W), *nɛ* (X). Some of these presentational focus markers *wɛ* (M) and *(y)e* (W) may also function as identificational focus markers like *(n)a* in Ndyuka. This suggests that *(n)a* in Ndyuka must have been modeled on both presentational focus markers, *(e)nyi* and *yɔ* (A), *wɛ* (M), *(y)e* (W), and *nɛ* (X).

The main difference that emerges between Ndyuka and Gbe in this area of grammar is the constituency ordering in topic comment constructions: In Ndyuka, *(n)a* always precedes the comment NP while in Gbe *(e)nyi* and the other presentational focus marker follow the comment NP in topic-comment constructions. The constituency ordering between the presentational focus marker and the (comment) NP was probably modeled on that in the varieties of English which also served as inputs to the SPC.

5. 4. 3. 2. Identity-denoting equative and possessive constructions in Gbe

As in Ndyuka, in equative and possessive propositions in Gbe in which the identity relationship between two referents or the possessive relationship between an entity and its possessor is stressed or (re)affirmed, the topic/subject is marked by the identificational focus marker--*(e)yi* (Aja), *wɛ* (Maxi), *(e)ye* (Waci), and *(e)yi* (Xwela)--and the comment is preceded by *(e)nyi* functioning as a copula or as a presentational focus marker. In the constructions in (26) it is not quite clear to me whether *nyi* functions as a copula or as a presentational focus marker. Given, however, that there is an intonational break between the subject/topic and the predicate/comment phrase which is indicated by the comma is seems more accurate to analyze the constructions in (26) as topic-comment constructions.

(26) a. ãmə́ nə βə́ yɛ́, nyĭ vijinĭ. (Gbe, Waci1)
person REL small FOC PRE/COP name
'It's THE SMALL PERSON, she's/it's Vijini.'

b. tadɔ́ tɔ́ wɔ́ yĭ, nyĭ kpo lada tɔ́ wɔ́.
name person PL FOC PRE also name person PL
'Also the Allada people, it's/they're TADO PEOPLE.' (Gbe, Aja1)

c. onɔn sin ɔ wɛ, nyi nu ɖagbe.
breast water DET FOC PRE thing good
'MILK, it's the best thing.' (Gbe, Maxi)

d. wema a wɛ, nyi ce. (Gbe, Maxi)
book DET FOC PRE mine
'THE BOOK, it's mine.'

My data also include constructions in which the identificational focus marker and the presentational focus marker seem to be clustered at the left edge of the comment phrase (27). That is, the identificational and the presentational focus marker both mark the comment NP. These kinds of constructions also seem to stress the identity relationship between the referent of the topic and the comment.

(27) dotɔ du ya mə tɔ, nucu ya ye nyi.
doctor village this in POSS man this FOC PRE
'The doctor of this village, it's THIS MAN.' (Gbe, Waci)

The structures in (26) show that in the Gbe languages equative constructions expressing identification have the same structure as in Ndyuka suggesting that these constructions in Ndyuka (and the SPC) were modeled on those in Gbe.

5. 4. 4. A possible explanation for the idiosyncratic behavior of *(n)a*

Both Arends (1989) and McWhorter (1997a) have noted that *(d/n)a* shows the idiosyncratic behavior in (28) in its copula function[7]:

[7]Some of these idiosyncracies are also found in other English-lexified creoles (see Pochard and Devonish, 1986).

(28) Idiosyncrasies of *(d/n)a* in the Surinamese creoles

a. it cannot be stranded after complement fronting,

b. it cannot occur in most tensed constructions; it is replaced by the copula *de*,

c. the negative marker and the relative past marker typically follow it,

d. it cannot be preceded by the unemphatic third person singular pronoun *a*; only the emphatic third person singular pronoun is possible in this position,

e. *da* in Saramaccan does not occur in *today is X* constructions

They argued that this idiosyncratic behavior of *(d/n)a* is due to its non-verbal origin. McWhorter (1997a) has used this evidence to support his argument that the copula usage of *(d/n)a* is not the result of substrate calquing since the equative and possessive copula in Gbe presumably does not show this idiosyncratic behavior. In this section I show that while it is true that *nyi* functioning as an equative or possessive copula or as a presentational focus marker in Gbe does not show any of the behavior in (28) this cannot be taken as conclusive evidence that the idiosyncrasies in (28) are indicative of a lack of substrate influence in the emergence of *(n)a*. My analysis suggests that the idiosyncrasies in (28) either fall out directly from *(n)a*'s presentational focus marker function or they are due to substrate influence from Gbe: In the Gbe varieties the presentational focus markers *yɔ* (A), *wɛ* (M), *(y)e* (W), and *nɛ* (X) display at least some of the behavior in (28) when functioning as the sole predicator in equative and possessive topic-comment

constructions. This then also suggests that *(n)a*'s behavior in Ndyuka (and the SPC) was modeled primarily on that of the presentational focus markers *yɔ* (Aja), *wɛ* (Maxi, Fon), *(y)e* (Waci) and, *nɛ* (Xwela) and only secondarily on that of *(e)nyi*.

The examples in (29) show that *nyi* in the Gbe varieties can occur in sentence-final position after complement fronting (29a), in overtly tensed and negated constructions (29b-c), and that it can take an unemphatic third person singular pronoun subject (29b-c).

(29) a. cĭcá mə dú mə yi, avlɔ nyi.
teacher POSS village in FOC name COP
'Avlo is THE TEACHER OF THE VILLAGE.' (Gbe, Waci2)

b. é ná nyĭ xɔ ɔ́ o na mɛ.
it FUT COP house DET you FUT build
'It'll be a house you'll build.' (Gbe, Maxi1)

c. e ma nyi gbafonu ɔ. (Gbe, Maxi1)
he NEG COP title DET
'He is not the Gbefonu.'

The examples in (27) suggest that *nyi* could not have been the model for the idiosyncratic behaviors (28a-d) of *(d/n)a* in Surinamese creoles.

Another possibility is that the idiosyncrasies (28a-d) were modeled on the behavior of the presentational focus markers *yɔ* (Aja), *wɛ* (Maxi, Fon), *(y)e* (Waci) and, *nɛ*

(Xwela) or directly fall out from its presentational focus marker function. Now I investigate these possibilities.

The fact that *(d/n)a* cannot occur in sentence-final position when its complement has been fronted (30b) but has to be replaced by the copula *de* (30c) in sentence-final position is most likely due to its (presentational) focus marking function in these constructions.

(30) a. Lina(,) na wan yefrow. (Ndyuka)
name COP/PRE DET teacher
'Lina is a teacher/she's a teacher.'

b. *wan yefrow Lina na.
DET teacher name COP/PRE

c. na wan yefrou Lina de.
FOC DET teacher name COP
'Lina is A TEACHER.'

That is, when *(d/n)a* precedes a NP, it marks that NP as presenting new, non-presupposed information about some topic, the NP which directly precedes the (comment) NP. If *(d/n)a* is separated from that (comment) NP, the (comment) NP cannot be interpreted as a comment of that (topic) NP since the crucial link between the two NPs is not there (or obvious). This also suggests that *(n)a* in these constructions is more a presentational focus marker than a copular verb.

Characteristic (28b) seems to have been modeled on the presentational focus markers *yɔ* (A), *wɛ* (M), *(y)e* (W) and, *nɛ* (X) in Gbe since, like *(d/n)a* in the Surinamese creoles, these presentational focus markers in the Gbe varieties cannot be preceded by tense, mood, or aspect markers (31). In tensed construction the copula *nyi* is obligatory (32) and the copula *de* is obligatory in Ndyuka.

(31) a. *a boi ya o na wan mesti te a
DET(sg) boy here FUT COP DET teacher till he
kon bigi. (Ndyuka)
come big.

b. *cica le UNB, kakpo a yɔ. (Gbe, Aja)
teacher LOC UNB, name FUT FOC/COP

(32) a. a boi ya o de wan mesti te a
DET(sg) boy here FUT COP DET teacher till he
kon bigi. (Ndyuka)
come big.
'This boy will be a teacher when he has grown up.'

b. cica le UNB, kakpo a nyi. (Gbe, Aja)
teacher LOC UNB, name FUT COP
'Kakpo will be the only teacher at the *université national du Benin*.'

With respect to characteristic (28c) it is not quite clear what the origin of the positioning of the relative past marker *be* is. The relative past marker *be* in Ndyuka may precede the complement NP (33a) but not *(n)a* (33b). In constructions with past time reference *(n)a* is, however, frequently replaced by *de* (33c). Most Gbe varieties do not have a relative past marker. Past time reference in Gbe is generally marked in the discourse using temporal adverbials. This suggests that the Gbe languages could not have been the model for the positioning of *be* with respect to *(n)a* in Ndyuka.[8]

(33) a. a sama de, a be mi man?
DET(sg) person there PRE PAST my husband
'That person, he was my husband?' (Ndyuka, PM12a)

b. *M. be na wan mesti. (Ndyuka)
name PAST COP/PRE DET teacher

c. dati be de en wooko. (Ndyuka, OK2a)
that PAST COP his work
'That was his work.'

[8]Note that the fact that *(n)a* in Ndyuka cannot be preceded by the relative past marker *be* can be seen as additional evidence that it is not verbal in Ndyuka since in other English-lexified creoles such as Guyanese Creole the copula and focus marker *a* may be preceded by the relative past maker *bin* (i).

(i) Jan bina di liida. (Guyanese Creole)
John PAST-COP DET leader
'John was the leader.' (Winford, 1993, p. 161)

As pointed out in (28c), the negation marker, like the relative past marker in Ndyuka, may also only directly precede the NP following *(n)a* (34a), but it may not precede *(n)a* (34b). *(n)a* may, however, also be replaced by *de* in negative constructions (34c).[9]

(34) a. taki man, a na du man. (Ndyuka)
say man COP NEG do man
'A talker is not a doer.'

b. *M. na a wan mesti. (Ndyuka)
name NEG COP DET teacher

c. ma nounou di mi an de sama moo.
but nownow REL I NEG COP person more
'But now that I am not a person any more.' (Ndyuka, OK2b)

This divergent positioning of the negation marker in Ndyuka may be the result of substrate retention since in some varieties of Gbe the negation marker either follows the NP and the presentational focus marker (35a-b). In other varieties, however, it directly follows the NP and precedes the presentational focus marker (35c). The focus marker

[9]There are also constructions in Ndyuka in which the copula and the negative marker seem to be merged:

(i) taki man na du man. (Ndyuka, OK4a)
say man NEG-COP/PRE do man
'A talker is not a doer.'

may also be replaced by *nyi* functioning as a copula (35d). These data from Gbe do not allow to unambiguously determine whether the positioning of the negation marker with respect to *(n)a* in Ndyuka is the result of substrate retention.

(35) a. zo keke lɔ, toma tɔ yɔ go.
fire bike DET name POSS PRE NEG
'The motorbike is not Thomas'/it's not Thomas.' (Gbe, Aja)

b. ehɔmɛ ɔ tahuntagbe wɛ ă. (Gbe, Maxi)
today DET Wednesday PRE NEG
'Today is not Wednesday.'

c. adɔmlɛn lɔ gɔ nɛ. (Gbe, Xwela1)
name DET NEG PRE
'It's/he's not Adomlen.'

d. é ká nyĭ egbɛ ɖagbe ɖe. (Gbe, Maxi 1)
it NEG COP world good DET
'It isn't a good world.'

Characteristic (28d) could be due to *(n)a*'s focus function and to substrate retention. *(N)a* in Ndyuka can generally not be preceded by the unemphatic third person singular pronoun *a* (36a); only the emphatic third person singular pronoun *en* can function as a pronominal topic in topic-comment constructions (36b). This is most likely due to the fact that they receive some emphasis in topic position.

(36) a. *a, na a polofesol tok.
she FOC DET(sg) professor DM

b. en(,) na a polofesol tok. (Ndyuka, PM7a)
her FOC DET(sg) professor DM
'But she is the professor.'

But given that in Gbe pronouns in topic position are also usually found in their emphatic form since they receive emphasis in this position, characteristic (28d) might also be the result of substrate retention or of both substrate retention and its focusing function (37).

(37) a. enyɔ d. e. (Gbe, Waci)
I name PRE
'I am D.'

b. enyɛ cica enyi. (Gbe, Aja)
me teacher PRE
'I am a teacher.'

c. *n d. e. (Gbe, Waci)
I name PRE

Finally, McWhorter (1997a) also discusses *today is X* constructions which according to him typically do not involve a copula in Saramaccan. He argues that they "do not appear to be accountable under a systematic formulation, and [... they] are probably fossilizations of a previous stage of the language in which such absence was more wide

spread in the grammar" (p. 92). In Ndyuka indentificational-type constructions involving *tide* 'today', *eside* 'yesterday', and *tamaa* 'tomorrow' or any week day-denoting noun either do not involve a copula (38a-b), like in Saramaccan, or they involve *(n)a* (38c-d) functioning as a presentational focus marker.

(38) a. omen dei Ø tide? (Ndyuka, PM18)
how.many day COP today
'What day is today?'

b. tide Ø sonde. (Ndyuka)
today COP Sunday
'Today is Sunday.'

c. na twenti a fo tamaa. (Ndyuka, PM 18)
PRE twenty ? four tomorrow
'Tomorrow, it's the twenty-fourth.'

d. tide/tamaa, na fodeiwooko. (Ndyuka)
today/tomorrow PRE Thursday
'Tomorrow, it's Thursday.'

In the Gbe varieties such constructions typically involve the presentational focus marker (39a-b) but in some varieties, such as Xwela, the two nouns may also be simply juxtaposed (39c). My Xwela informant claims that the latter strategy is the preferred one in Xwela. Finally, it is also possible to link the two nouns in a topic-comment-type construction involving *(e)nyi* functioning as a presentational focus marker (39d).

(39) a. egbɛ, labiʃigbe yɔ. (Gbe, Aja)
today Thursday PRE
'Today is Thursday/it's Thursday.'

b. egbe ɔ, dʒoɖa nɛ. (Gbe, Xwela)
today DET Monday FOC
'Today is Monday/it's MONDAY.'

c. egbe dʒoɖa. (Gbe, Xwela)
today Monday
'Today is Monday.'

d. egbɛ, labiʃigbe e-nyi. (Gbe, Aja)
today Thursday it-is
'Today, it is Thursday.'

The above discussion suggests the following things about the origin of the idiosyncrasies of *(d/n)a* in the Surinamese creoles presented in (28): They do not seem to be relics of a distal demonstrative origin of *(d/n)a* but rather seem to be directly related to *(d/n)a*'s presentational focus marker function in these constructions and/or seem to be the result of substrate influence. The fact that *(n)a* in Ndyuka cannot appear in sentence-final position is probably related to *(n)a*'s focus marker function in these constructions while *(n)a*'s absence in constructions whose subject is 'today' etc. and possibly the placement of the negative marker with respect to *(n)a* are probably the result of substrate retention

since similar patterns are found in some Gbe varieties. *na*'s incompatibility with unemphatic third person pronoun subjects or topics and TMA markers is most likely the result of both substrate retention and *(n)a*'s focus function in these constructions. The above discussion then suggests that *(n)a* in the SPC was probably more closely modeled on the presentational focus markers in Gbe than on *(e)nyi*.

5. 5. The copula *de*

In this section I discuss the conventional wisdom about the origin and emergence of the copula *de* in English-lexified creoles and argue that there is little evidence in modern Ndyuka which supports this emergence scenario. In addition, I show that *de*'s distribution in Ndyuka is highly similar to that of its counterparts in Gbe suggesting that it is the result of substrate retention. Finally, *de*'s occurrence in some equative and possessive constructions is due to the fact that *de* is the only copula in Ndyuka.

5. 5. 1. The origin of the copula function of *de*

Most researchers (Arends, 1989; Migge, 1995; Mufwene, 1986a; Pochard and Devonish, 1986; Winford, 1993) working on the copula domain in English-lexified creoles assume that the copula *de* was reanalyzed from the locative adverb *de* meaning 'there' in predicative locative constructions. This hypothesis assumes that creoles passed through a stage in which copulas were absent in predicative locative environments. In this stage, exemplified in (40), locative predicates directly followed the subject and 'double locative'

constructions in which the locational adverb *de* would be directly followed by a location-denoting PP or LOCP would have been acceptable.

(40) a pikin de na a osu tapu. (Ndyuka)
DET(sg) child there LOC DET(sg) house top
SUBJECT PREDICATE
'The child is there on top of the house.'

The structure then underwent a process of rebracketing in which the locational adverb semantics of *de* became bleached and *de* became reanalyzed as a locative copula and the PP or LOCP following it as a locative predicate (41).

(41) a pikin de na a osu tapu. (Ndyuka)
DET(sg) child COP LOC DET(sg) house top
SUBJECT COP PREDICATE
'The child is on top of the house.'

Arends (1989) suggests that *de* was reanalyzed from the locational adverb in the type of constructions in (42) as a general copula meaning 'to be present'.

(42) a. mastra, mi de. (Sranan Tongo)
master I Ø there
'Master, here I am.' (Arends, 1989, p. 34)

b. mastra den bassia de.

master the overseer Ø there

'Master, the overseers are here.'

McWhorter (1997a) argues that *dɛ* in Saramaccan was reanalyzed from the deictic adverb *dɛ* (43) which "is often optionally inserted into sentences in order to lend deictic emphasis. *dɛ* in this usage is not integral to the grammaticality of the utterance" (p. 105).

(43) nɔ́iti fa mi dɛ a winikĭi dɛ, nɔ́iti mi jɛ́i taa... (Saramaccan)

never how I COP LOC name there never I hear that

'Never since I've been at Winikii there have I heard that ...'

(adapted from Glock, 1986, p. 51, from McWhorter, 1997a, p. 105)

None of the scholars provide much evidence for this path of reanalysis. McWhorter (1997a) provides cross-linguistic evidence from Berbice Dutch arguing that "an expressive *there* is used heavily enough in locative predications to become syntacticized" (p. 106). Other researchers see cases of copula absence in historical texts from Sranan Tongo (Arends. 1989) and in modern conversational data from Belize Creole (Migge, 1995) as possible supporting evidence for this hypothesis.

In modern Ndyuka there is not any evidence which would support any of these reanalysis scenarios. In Ndyuka the copula *de* is always present in predicative locative

constructions (44a). My conversational data from Ndyuka did not include any predicative locative constructions involving copula absence and my informants rated predicative locative sentences involving copula absence unacceptable (44b).

(44) a. C. de a bilo. (Ndyuka, PM17a)

name COP LOC down.stream

'C. is in one of the coastal towns.'

b. *C. Ø a bilo. (Ndyuka)

name COP LOC down.stream

De in Ndyuka can also not denote a physical location in sentences like (45a) in which it is not followed by a complement, unlike *de* in Belize Creole (45b) and in early Sranan Tongo (42) — as hypothesized by Arends (1989).

(45) a. a sani de. (Ndyuka)

DET(sg) thing there

*'The thing is there.'

b. aal di tʃɜtʃ da M. mɪ Ø de.

all the church LOC name PAST COP there

'All the church (people) from M. were there.' (Belize Creole)

(Migge, 1995, p. 80)

In Ndyuka, such constructions always have either an existential reading (44a) or mean 'to be well' (46b).

(46) a. a goontapu ya, biibiman no de.
LOC-DET(sg) world here believer NEG COP
'In this world here believers don't exist.' (Ndyuka, PM18)

b. A: fa i tan. B: mi de. (Ndyuka)
how you stay I COP
'A: How are you? B: I am well.'

Finally, the locational adverb *de* never occurs in predicative locative constructions in Ndyuka (47a). The distal locational adverb in predicative locative constructions in Ndyuka is *ape* (47b).

(47) a. *a pikin de de. (Ndyuka)
DET(sg) child COP there

b. kwaka an de ape moo?
processed.cassava NEG COP there more
'There isn't any more processed cassava there?' (Ndyuka, PM17)

de in Ndyuka may only function as a locational adverb in non-copular locative constructions (48a). It also functions as a postposed distal demonstrative modifying a preceding NP(48b).

(48) a. na mi wai en go namo de.
FOC I move it go constantly there
'It's ME who constantly moves it there.' (Ndyuka, OK2a)

b. a Baa T. meki a mati de.
FOC brother name make DET(sg) friend that
'It's Baa T. who made that woman/Baa T. is the father of that woman.' (Ndyuka, OK2a)

The above data suggest that while it is possible that the copula function of *de* might have emerged by a process of reanalysis from the locational or distal deictic adverb *de*, there is, however, not much evidence in synchronic Ndyuka which would support any of the previously proposed scenarios. The only evidence in favor of this analysis is the homophony between the locational adverb *de* and the copular *de*. The lack of substantial evidence for the reanalysis scenario in Ndyuka might suggest that the proposed reanalysis processes did not actually take place *in* Ndyuka (or the SPC) but was borrowed from the varieties of English into the SPC already functioning as a copula. It might also suggest that no traces of this reanalysis process were left behind. It seems, however, most likely that they creators of the SPC found *de* in a copula position in predicative locative constructions and then just reinterpreted it as a copula based on their native language strategies.

5. 5. 2. A possible origin for the semantic and distributional properties of *de*

McWhorter (1997a) argues that the similarities between the copula *de* and its substrate counterparts is coincidental and is not the result of influence from the latter. His primary evidence in support of this argument is the fact that *de* in Saramaccan can be used

to predicate a wide variety of complements such as NPs and adjectives besides LOCPs while its Kwa counterparts can allegedly only predicate LOCPs. He does not, however, provide any data from the substrate languages to support his argument. The aim of this section is to compare the distribution of the copula *de* in Ndyuka and its Gbe counterparts to show that they have a highly similar distribution.

According to my data, the copula *de* in Ndyuka and its Gbe counterparts *lɛ* (Aja), *ɖo/ɖu* (Maxi and Fon), *lə* (Waci), and *de/ɖe* (Xwela) can take adverbs, LOCPs, and various non-verbal property denoting items as their complements. In addition, they can be used to express existence and well-being and they may be used to mark imperfective aspect. The examples in (49) show that *de* and its Gbe counterparts can take locative adverbs (49a-b) and LOCPs (49c-f) as their complements. In Ndyuka LOCPs are always headed by the locative preposition *(n)a* and may (49c) or may not (49e) include a postpositon (49c) while in Gbe they are either headed by a postposition (49d) or simply consist of a locative NP (49f).

(49) a. mi an bii a de ya? (Ndyuka, OK4a)
I NEG believe he COP here
'I don't think he is here.'

b. etɔ́ ɖɛ́ká́ lɛ́ lɛ̌. (Gbe, Aja2)
marigot one LOC here
'One marigot is here.'

c. da i (y)ati a de ne en tapu moo.
then your heart NEG COP LOC him top more
'Then you heart isn't with this topic any more.' (Ndyuka, OK3b)

d. ilɔ́ e dɛ́ to mɛ́. (Gbe, Xwela1)
crocodile FOC COP water in
'It's the crocodile who was in the water.'

e. ala dei mi de ne en baka. (Ndyuka, OK4b)
all day I COP LOC his back
'Everyday I am after him.'

f. é fán eyɛ́ de eyɛ́ xwɛ. (Gbe, Xwela2)
he say he COP his house
'He said he was at his house.'

de in Ndyuka and its Gbe counterparts may also take non-verbal property denoting items such as adjectives (50a-b), reduplicated property items which express temporary and visible states (50c-d), ideophonic adverbs (50e-f), property denoting adverbs like 'so' and 'like that' (50g-h), and numerals (50i) including numerals referring to times and prices (50j-k).

(50) a. na a mma be de bun e solugu
FOC DET(sg) mother PAST COP well PROG care
en. (Ndyuka, PM2b)
him

'It's the woman who was well and taking care of him.'

b. ə̃də̃ lə vidɔ. (Gbe, Waci1)

one COP small

'One is small.'

c. [He was quite old] (Ndyuka, PM11b)

ma ala en ede be de baakabaaka.

but all his head PAST COP blackblack

'But all his head (hair) was still (in a) black (state).'

d. yé duwɔ ɸodiɸódĭ mə a nɔ́ ɸodiɸódĭ ji.[10]

your village dirtydirty in FUT stay/COP dirtydirty on

'But your dirty village will always be in a dirty state.' (Gbe, Waci2)

e. tiya bobi de felefelefele. (Ndyuka, PM17b)

aunt breast COP IDEO

'The aunt's breast is nice and soft.'

f. eyɛ́ lɛ dé bɛ́gɛ́bɛ́gɛ́. (Gbe, Xwela2)

they PL COP IDEO

'They were thin.'

[10]In Waci the copula *lə* becomes *nɔ* in tensed constructions.

g. te a de so. (Ndyuka, PM17b)

until it COP so

'Until it is like that.'

h. ə lə ləkə. (Gbe, Waci)

he COP like.that

'He is like that.'

i. te neen H. kon a den neen den de dii.

till then H. come LOC them then they COP three

'Until H. joined them, then they were three.' (Ndyuka, OK4b)

j. a meti de feifi dunsu. (Ndyuka)

DET(sg) meat COP five thousand

'The meat costs five thousand guilders.'

k. kple ɔ ɖ' oga tɔ me. (Gbe, Maxi)

meeting DET COP three time in

'The meeting is at three o'clock.'

de in Ndyuka and its Gbe counterparts may also express the existence of some entity (51a-b). In Waci and Aja the copula has the form *li* and in Maxi and Fon it has the form *ɖe* in existential contexts. In sentence final position *ɖo/ɖu* in Maxi and Fon always have the form *ɖe* (51c). In Waci and Aja *li* represents a merger between the copulas *lɛ*,

and *lə* respectively and the dummy object *e* (Akuetey, 1995, p. 79-80).[11] In Maxi the copula *ɖo/ɖu* may also be replaced by the existential verb *tin* (51d).

(51) a. a goon mu de, a hontiman mu
DET(sg) field OBL COP DET(sg) hunter OBL
de. (Ndyuka, OK3a)
COP
'There must be a field and there must be a hunter/husband.'

b. nya gɔn mə, ɔ́ lĩ. (Gbe, Waci2)
story ? in they exist
'The interpretations, they exist.'

[11]According to Akuetey (1995, p. 79-80), since *le* is a "two place predicate" *e* is (obligatorily) used to fill the 'empty' object slot in constructions in which no overt locative complement is present. If a locative complement is present, *li* cannot occur (i).

(i) *kofi li aɸe me. (Ewe)
Kofi be-there house in
'Kofi is (there) at home.' (Akuetey, 1995, p. 76)

A similar pattern is also found with other transitive verbs such as *ɸle* 'to buy' which becomes *ɸli* (*ɸle+e*) when its complement is not overtly expressed. *ɸli* cannot be followed by a complement since *e* already occupies the complement slot (ii).

(ii) *ao é *ɸli* sɔ. (Ewe)
no he buy-it horse
'No, he has bought it a horse.' (Akuetey, 1995, p. 77)

Note also that Akuetey translates *le* as 'be' and *li* as 'be there'. If these are the right glosses for *le* and *li* respectively, that would suggest that these two items were merged into only one item, *de*, in Ndyuka. He also points out, however, that other dialects of Gbe such as Gen (and Xwela) do not differentiate the two. This might suggest then that *de* in Ndyuka was modeled on the latter dialects.

c. ami ɖe. (Gbe, Maxi)
oil there
'There is oil.'

d. nu kegɛ́kegɛ́ tin. (Gbe, Maxi1)
thing many exist
'Many things exist.'

If the subject of the copula denotes a human being and the copula does not have an overt complement it means that the subject 'is well' or 'in a healthy state' (52).

(52) a. A: fa fu a sisa fi i?
how for DET(sg) sister POSS you
B: a de. (Ndyuka)
she exist/COP
'A: 'How about your sister? B: She's well.'

b. A: degbɛ ɖe? B: e li. (Gbe, Waci)
name COP? he exist/COP
'A: How about Degbe? B: He is well.'

In Ndyuka and in most Gbe varieties (Aja, Gen, Fon, Maxi, and Waci) the progressive or imperfective marker is also derived from or related to this copula (53a-c). In Ndyuka the imperfective marker always has the phonological shape *e*. In Xwela

progressive aspect is marked by the element *nɔ* (53d) which is derived from the verb 'to stay' (see below for a brief discussion of the relationship between the copula and *nɔ* in Gbe).[12]

(53) a. da na ala den sama e du en.
then FOC all DET(pl) people PROG do it
'Then all the people are doing it.' (Ndyuka, OK3a)

b. mə lə əyán sɔ̄ lɔ́ A.. (Gbe, Waci1)
I COP story hear LOC name
'I was hearing the story at A's.'

c. é ɖo yiyi wé. (Gbe, Maxi1)
he COP gogo PART
'He is going/leaving.'

d. édén mɔ́ nɔ́ srɪ́ ɖe kɔ́ nɪ̌.
sweat PAST PROG pour LOC neck for-him
'Sweat was running down his neck.' (Gbe, Xwela1)

Unlike *(n)a*, *de* in Ndyuka is fully verbal since it may be directly preceded by tense, mood, aspect and negation markers (54a) and it may be stranded after fronting or questioning of its complement (54b-c).

[12]Note, the progressive marker *ta* in Saramaccan is probably also derived from *tan* 'to stay' rather than the progressive marker *ta* used in other Portuguese-lexified creoles.

(54) a. wan sama be mu de anga en.
DET person PAST OBL COP with her
'Someone should have been with her.' (Ndyuka, PM 2b)

b. iya, a paamaka, a de. (Ndyuka, OK4a)
yes, LOC name she COP
'Yes, she is with the Paramaccans.'

c. na a se ya, yo de?
LOC DET(sg) side here you-FUT COP
'On THIS SIDE you'll be? (Ndyuka, PM17a)

In Gbe the copula may be stranded after fronting or questioning of its complement (55a). In some varieties of Gbe such as Maxi, Fon, and variably in Waci its phonological shape is, however, *ɖe* (55b) in sentence final position.[13]

(55) a. mɛ yibo hluago ji ŋsi ɖe. (Gbe, Xwela1)
people black country on power COP
'There is power in the black people's country.'

b. fĭ ká fófóví ɖé? (Gbe, Waci1)
place QP name COP
'Where is Fofovi?

[13]It is possible that originally the non-equative copula was *ɖe* in all Gbe dialects and that it later changed to the various other forms (Capo, personal communication, April, 1997).

In some varieties of Gbe such as Maxi and Fon (56a) it may be preceded by tense, mood, and aspect markers. In other varieties of Gbe such as Xwela, Waci, and Gen the copula is typically replaced by the verb *nɔ* meaning 'to stay' (56b) in tensed constructions. In Aja this replacement is optional according to my informant.

(56) a. o ko na ɖ' oxwe tuwe gbe.
you COMPL FUT COP house you at
'You'll already be at your house.' (Gbe, Maxi2)

b. depute dəka ɖolá nɔ́ miɔ́ gbɔ́.
representative one must COP us with/next to
'One representative of the people should be with us.' (Gbe, Waci1)

In all varieties of Gbe the copula may, however, be preceded by the negation marker (57).

(57) əβɔ́ ɖɔ́ mə lə fĩ ya. (Gbe, Waci 1)
hole DET NEG COP place this
'There isn't a hole here.'

The above discussion of (Ndyuka) *de* and its Gbe counterparts suggests that they have a highly similar distribution in both languages: They may take all kinds of locative and property denoting expressions as complements, they may express existence, and in both languages the progressive or imperfective aspect marker is related to or derived from this copula. The two languages differ with respect to the verbal status of the copula, however. In Ndyuka *de* is fully verbal while in some varieties of Gbe the copula is

replaced by a verb meaning 'to stay' in tensed constructions. The close similarities in the distribution of this copula in Ndyuka and Gbe suggests that the distribution of *de* in the SPC was most likely modeled on that of its Gbe counterparts.

5. 5. 3. *de* in predicative equative and possessive constructions

Both Arends (1986, 1989) and McWhorter (1997a) show that *de* also occurs in class membership denoting and tensed equative constructions in the Surinamese creoles Sranan Tongo and Saramaccan. In early varieties of Sranan Tongo *de* is also found in possessive constructions (58a) "when the possessed item is definite" (Arends, 1989, p. 40) while in 20th century varieties *de* is only found in tensed possessive constructions and *(n)a* in untensed constructions (58b).

(58) a. datti de vo dem. (Sranan Tongo)
that COP of/for them
'That belongs to them.'

b. a sani a fu en.
DET(sg) thing is of/for him
''That belongs to him.' (adapted from Schumann, 1783, p. 81, from Arends, 1989, p. 40)

McWhorter (1997a), arguing that the substrate counterpart of *de* is not found in these environments, uses this distribution as supporting evidence for this hypothesis that *de* in the Surinamese creoles did not emerge as the result of substrate influence.

My conversational data and my elicitation work with native speakers of Ndyuka varieties show that *de* in equative and possessive constructions in Ndyuka does not have exactly the same distribution as *de* in Saramaccan and Sranan: My data contain only very few instances of *de* in predicative possessive (59a) and equative (59b) constructions and in all of these constructions *de* is either modified by tense, mood, aspect, and negation markers (59a-b) or it occurs in sentence final position (59c). But *de* does not occur in untensed or non-negative class-membership-denoting equative (59d) or possessive constructions (59e).

(59) a. a an de fu a man ya.
it NEG COP POSS DET(sg) man here
'It isn't the man's.' (Ndyuka, PM12a)

b. en dda be de wan sama di sabi taki ...
his father PAST COP one person REL know say
'His father was a person who knew that ... .' (Ndyuka, PM7b)

c. a komundanti, a de. (Ndyuka, OK4b)
FOC commander he COP
'It's a commander he is.'

d. *a de wan paamaka sama. (Ndyuka)
she COP DET Paramaccan person

e. *a osu de fu mi.
DET(sg) house COP POSS me

In the Gbe varieties, the copulas *lɛ* (Aja), *ɖo/ɖu* (Maxi and Fon), *lə* (Waci), and *de/ɖe* (Xwela) never appear in predicative nominal constructions but they occur in possessive constructions in which possession is expressed by the phrase *in X's hand* (58).

(60) o de mĩ sĩ. (Gbe, Xwela2)
they COP our hand
'They are in our hand.'

These data suggest that, as argued by McWhorter (1997a), that *de*'s occurrence in tensed and negative equative and possessive environments was most likely *not* the result of substrate retention. It seems that its occurrence in these environments is most likely the result of it being the only verbal copula in Ndyuka.[14] That is, *de*'s use in these contexts is conditioned by the fact that it is fully verbal and is therefore well-suited to replace *(n)a* in Ndyuka which is not a predicator but rather at best a partially verbal presentational focus marker which may perform copula-type functions in untensed constructions.

In summary, this section on the copula *de* suggests that *de*'s overall distribution in the SPC emerged as the result of substrate influence from Gbe and its occurrence in tensed equative and possessive constructions seems to be the result of extension since it is the only verbal copula in Ndyuka (and the other Surinamese creoles).

[14] See Arends (1989) for a similar argument.

5. 6. Ascriptive constructions

Research (Arends, 1989; Migge, 1995; McWhorter, 1997a; Winford, 1993) on what has traditionally been called the copula domain shows that copula absence is near categorial in ascriptive constructions in English-lexified creoles. This has led to the now commonly accepted view that adjectival items or property items in predicative position in creoles behave like verbs. Since 'adjectives' in predicative position in a number of West African languages also seem to be verbs, their behavior in creoles has been assumed to be the result of substrate retention (Alleyne, 1980, p. 160-162; Arends, 1989; Holm, 1988; McWhorter, 1997a, p. 85). None of these researchers have, however, substantiated such a claim by systematically comparing ascriptive constructions in a creole and its substrate. The aim of this section is thus to carry out such a comparison. The comparative analysis shows close parallels between the semantic and syntactic properties of 'adjectives' in predicative position in Ndyuka and Gbe suggesting that their properties in the SPC were most likely due to substrate influence from Gbe.

In the following discussion I refer to so-called adjectival items as property items following Thompson (1988). Property items refer to "properties, qualities or characteristics of referents" (p. 167). This term is meant to be neutral with respect to the syntactic category into which such items may fall in a given language.

5. 6. 1. Property items as verbs

5. 6. 1. 1. The syntactic properties of property items functioning as verbs

In the literature on property items in creoles two positions have emerged with respect to their categorial status when functioning as predicators. Seuren (1986) argues that they are adjectives while others such as Alleyne (1980, 1987), Bailey (1966), Huttar and Koanting (1993a), Sebba (1982), and Winford (1993, 1997a) maintain that they behave like typical verbs in these languages.[15] The latter group of scholars argue in favor of a verbal analysis of property items on the basis of the fact that property items may display several properties which are assumed to be typical of verbs. In (61) I summarize the kinds of properties that were used to prove the verbhood of property items in creoles.

(61) Properties of property items functioning as verbs in creoles

a. They can be directly preceded by TMA and negation markers.

b. They can be predicate clefted.

c. They can be followed by degree adverbs like typical verbs.

d. Some may take an object argument like prototypical change of state verbs.

e. They can function as the verbal head in serial verb construction.

Below I show that property items functioning as predicators in Ndyuka and Gbe should be analyzed as verbs since they display the properties in (61), which are also typical of

[15]For a complete discussion of the controvery, see Winford (1997a).

verbs in these languages. I do not refer to property five to prove verbhood since it is not clear if the ability of a verb to appear in a so-called serial verb construction (SVC) is indicative of that element's verbhood.

The strongest evidence in favor of a verbal analysis of intransitively used property items in Ndyuka and Gbe is their ability to be directly preceded by all kinds of verbal markers such as tense, mood, aspect (TMA), and negation markers (62).

(62) a. M., a ede uwii fi-i de mu nati
M DET(sg) head hair POSS-you there OBL wet
namo.
necessarily
'M., that hair of yours has to necessarily get wet.' (Ndyuka, PM17b)

b. en mma be e siki. (Ndyuka, OK3a)
her mother PAST PROG sick
'Her mother was usually sick.'

c. emĩ-ɖe-e nɔ̃ nyɔ̃ nɛ̃ mĩ-ɖè-è. (Gbe, Maxi1)
we-DET-PL HAB be.good give we-DET-PL
'Some of us are good for us/to ourselves.'

d. lan mɛ á kɔn. (Gbe, Xwela1)
body in FUT fine
'The body will be fine.'

According to my informants, the insertion of a copula between the tense and aspect auxiliaries and the property item renders such constructions unacceptable (61).[16]

(63) a. *M., a ede uwii fi-i de mu de
M DET(sg) head hair POSS-you there OBL COP
nati namo.
wet necessarily

b. *en mma be e de siki.
her mother PAST PROG COP sick

c. *emĩ-ɖe-e nɔ̃ ɖu nyɔ̃ nɛ̃ mĩ-ɖè-è.
we-DET-PL HAB COP be.good give we-DET-PL

d. *lan mɛ á ɖe kɔn.
body in FUT COP fine

[16]Ndyuka has only one true copula verb, namely *de*, which can take as complements a wide variety of non-verbal items including some adjectives (see below). Other items which have been assumed to be copulas such as *kon* and *tan* are not copulas. They seem to be both main verbs with aspectual meaning but they are not members of AUX. When *kon* 'come' precedes a verb it denotes that the state or action denoted by it has been accomplished. *tan* 'to remain, to stay' may function as a marker of continuity or stativity when preceding property items. That is, it expresses that the property denoted by the property item has been in existence for quite some time. The element *toon* typically subcategorizes for NPs which denote a title or job which can only be acquired through a process of learning, studying etc.

Most varieties of Gbe have two copulas, namely *ɖe*, *ɖo/u*, *lə*, *le* and *nyi*. *nyi* is only used for nominal predication while *ɖe*, *ɖo/u*, *lə*, and *le* may be used to predicate a wide variety of non-verbal items including adjectives.

A second important piece of evidence in favor of a verbal analysis of property items in Ndyuka and Gbe is their ability to be predicate clefted (62). In Ndyuka the verbal copy is optionally preceded by the identificational focus marker *(n)a* and in Gbe the copy may optionally be followed by a focus marker, *yi* in Aja, *wɛ* in Maxi, *ye* in Waci, and *eyi/ɔ* in Xwela. In Ndyuka and Gbe all verbal property items may be predicate clefted (64) just like typical verbs (65).

(64) a. a duungu ye duungu? (Ndyuka, PM18)
FOC drunk you-IMP drunk
'Are you getting DRUNK?'

b. cɯ́ ɔ e cɯ́a na tɔ loo. (Gbe, Xwela2)
afraid FOC he afraid give water EMPH
'He is AFRAID of water.'

(65) a. a lobi yo lobi a sama. (Ndyuka, PM11a)
FOC love you-FUT love DET(sg) person
'You will LOVE the person.'

b. nɔ ye e nɔ aha le kutɔnu ətʃɔ.
drink FOC she drink alcohol LOC name yesterday
'She DRANK alcohol at Cotonou yesterday.' (Gbe, Waci)

Property items in Ndyuka and Gbe may also be modified by adverbs of degree just like typical verbs. In both languages adverbs of degree including ideophones generally follow both property items functioning as predicators (66) and typical verbs (67).

(66) a. a pikin moi te. (Ndyuka, PM17b)
DET(sg) child nice very
'The child is very nice.'

b. ɛ́ nǎ sɑ́vɔ gɑ̌njĭ. (Gbe, Maxi2)
it FUT big well
'It will be quite large.'

(67) a. me kosi en te. (Ndyuka, PM12a)
I-IMP curse him very
'I was cursing him a lot.'

b. ɛ́yɔ dĭ bai gɑ̌nji. (Gbe, Xwela1)
he resemble name well
'He resembled Bai a lot.'

Finally, a number of property items in Ndyuka and Gbe may also take a direct object and function like transitive verbs (68).

(68) a. a be go taku a pikin de.
she PAST go evil DET(sg) child there
'She went to make that child evil.' (Ndyuka, PM17b)

b. è gĩgɛ ɔ́kã̄ lɔ́. (Gbe, Xwela)

she short string DET

'She shortened the string.'

In Ndyuka almost all property items from most semantic subgroups proposed by Dixon (1977) may take direct objects. Notable exceptions to this are the verbs *bun* 'good', *lontu* 'round', and *nyun* 'new' from the semantic subgroups of value, shape, and age respectively. The elicitations with speakers of Gbe showed that all or several property items from the semantic subgroups of physical property ('cold', 'dead'), dimension ('big', 'broad'), value ('good', 'evil'), color, and weight ('heavy', 'light') can take a direct object while those expressing age ('old', 'new') and human propensity ('lazy', 'stupid', 'evil') cannot take a direct object.

The above discussion of the behavior of property items functioning as predicators in Ndyuka and Gbe suggests two important things: First, in both languages property items display syntactic behavior typical of transitive and intransitive verbs in these languages. Second, the cluster of properties characteristic of verbs is the same in both languages. This suggests that the syntactic properties of property items functioning as predicators in the SPC were most likely modeled on those of its Gbe substrate.

5. 6. 1. 2. The semantic properties of property items functioning as verbs

In the literature on property items in creoles two main views have arisen with respect to the semantic properties of property items. Some researchers (Arends, 1989;

Bickerton, 1973, 75; Sebba, 1986; Voorhoeve, 1957, 1962; Waite, 1983) claim that in their intransitive usage, property items are essentially stative verbs which express current states. They may however assume a processual interpretation when they are preceded by the progressive marker (Kahrel, 1987; Seuren, 1981, 1986). Other researchers (Alleyne 1980, 1987; Winford, 1993, 1997a) argue that most property items are non-stative and that their current state reading is the result of their completed process reading.[17]

The latter group of researchers have argued in favor of a non-stative analysis of property items on the basis of the fact that property items satisfy several of the diagnostics in (69).

(69) Diagnostics to determine the processual nature of verbal property items in creoles

a. They take on an inchoative interpretation when marked by the imperfective aspect marker.

b. They have a completed process reading when marked by the completive aspect marker.

c. When unmarked their current state reading is an entailment of their past process reading.

Below I show that property items functioning as intransitive verbs in Ndyuka and Gbe should be analyzed as non-stative verbs since they satisfy all the diagnostics in (69), which are typical of non-stative verbs in these languages.

[17]For a complete discussion of the controvery, see Winford (1997a, pp. 259-280).

One evidence in favor of the argument that property items in Ndyuka and Gbe are processual or non-stative in character is their ability to take on an inchoative interpretation when they are preceded by the imperfective or progressive aspect marker (70). That is, the progressive marker indicates that the subject of the property item is in the process of acquiring the property denoted by the property item.

(70) a. sama abi a wasi duku di e nati
person have DET(sg) wash towel REL PROG wet
ape?
there
'Who has the towel that is getting wet there?' (Ndyuka, PM12a)

b. nuḍé ká ḍo nyunyɔ nɛ mɛ wé.
nothing ? COP goodgood for person FOC
'Nothing has even been getting good/better for people.' (Gbe, Maxi2)

d. emɛ lɔ nɔ ga. (Xwela)
person DET PROG big/fat
'The person is getting fat.'

Further evidence of the non-stative or processual semantics of property items functioning as intransitive verbs can be derived from the fact that most property items may have a past action or completed process reading when they are modified by the VP final completive aspect marker, *kaba* in Ndyuka and *vɔ* (A, W, X), *fo*/*vɔ* (M) in Gbe.

(71) a. nounou a dee kaba. (Ndyuka, PM17a)
nownow it dry COMP
'Now it [her breast] has gotten dry/is already dry.'

b. awu lɔ fa vɔ. (Gbe, Aja)
shirt DET wet COMP
The shirt has gotten wet/is already wet.'

The past action or completed process interpretation of property items is not restricted to property items marked by the completive aspect marker, though; property items which are unmarked by TMA auxiliaries may also have a completed process reading besides a current state interpretation (72). In the case of constructions without overt TMA marking it is the context which determines whether they have a stative (73a-b) or a non-stative (73c-d) reading.

(72) a. a man dede. (Ndyuka)
DET(sg) man dead
'The man has died/is dead.'

b. ě có kɯ́. (Gbe, Maxi2)
they all dead
'They have all died/are all dead.'

(73) a. a dda e feti fu te a dda
DET(sg) father IMP fight for till DET(sg) father
dede foin. (Ndyuka, OK3b)

dead IDEO

'The elder was fighting until the elder was dead as a door nail.'

b. mɛ lewlūɛ́ lɛ kū gbɔ́n é mɔ́ bayi nu
person certain PL die till they PAST make thing
tɛtɛbi nɛ. (Gbe, Xwela1)
all for-him
'Certain people were dead and they had performed all the rituals for them.'

c. te den kaba feti wan pisi [...] neen a dede.
when they finish fight one piece then he die
'When they had finished fighting a bit, then he died.' (Ndyuka, OK2a)

d. dawūɛ́ ɔ mɔ́ jā, mɔ́ kū xui. (Gbe, Xwela1)
man DET PAST fall PAST die IDEO
'The man fell and died quietly.'

The above examples suggest that most verbal property items in Ndyuka and Gbe are basically non-stative, process denoting verbs which can take on a stative reading given the right context. Their stative reading is "an entailment of the completed process reading, and does not represent a distinct syntactic function" (Winford, 1997a, p. 263).

In Ndyuka and Gbe there are a small number of property items which are more stative in nature. As unmarked verbs they have a stative interpretation "without implying

a past process" (Winford, 1997a, p. 26) (74a-b). In both languages such items come from the semantic subgroups of human propensity and value. [18] In Ndyuka they may not be marked for progressive aspect (74c) and in both Ndyuka and Gbe they do not allow a past action or completed process reading when they are marked by the completive aspect marker. Instead, they seem to convey that the state they denote has already been in existence for some time (74d).

(74) a. a telefon a bunkopu. (Ndyuka, OK1)
DET(sg) telephone NEG cheap
'The telephone is not cheap/*has not gotten cheap.'

b. awu lɔ vɛ̀ xo. (Gbe, Aja)
clothe DET expensive market
'The piece of clothing is expensive/*has gotten expensive.'

c. *a telefon e bunkopu. (Ndyuka)
DET(sg) telephone PROG cheap

d. a telefon bunkopu kaba. (Ndyuka)
DET(sg) telephone cheap COMP
'The telephone is already cheap/*has already gotten cheap.'

The above discussion reveals the following semantic similarities between verbal property items in Ndyuka and Gbe: First, most property items functioning as intransitive

[18] See also Huttar and Koating (1993a) and Huttar and Huttar (1994) for a similar view with respect to Ndyuka.

verbs are non-stative or processual in character and their stative reading is an entailment of their past action or completed process reading. Second, a small group of verbal property items seem to be inherently more stative. The current state reading of these items does not imply the existence of a past process. These semantic similarities between Ndyuka and Gbe then suggest that the semantic properties of property items functioning as intransitive predicators in the SPC were most likely modeled on those of Gbe.

5. 6. 2. Property items functioning as attributive adjectives

Previous studies on property items in creoles (Alleyne, 1980; Bailey, 1966; Huttar and Koanting, 1993a; Huttar and Huttar, 1994a; Winford, 1993, 1997a) showed that they may also function as attributive adjectives. In this function they usually have the same form as in predicative position and are found to exhibit the following cluster of properties:

(75) Characteristics of property items functioning as attributive adjectives in creoles

a. They may modify nouns.

b. They may be conjoined with one or more adjectives in the NP.

c. They may be modified by adverbs of degree in the NP.

Below I show, using the properties in (75), that property items that may occur in attributive position in Ndyuka and Gbe behave like typical attributive adjectives.

The strongest evidence that property items in Ndyuka and Gbe behave like typical attributive adjectives is their ability to function as modifiers of the nominal head of an NP (74). That is, they specify a property of the referent of the noun. In the Surinamese creoles, including Ndyuka, property items functioning as noun modifiers precede the nominal head (74a-b) while in Gbe they follow the nominal head (76c-d).[19]

(76) a. mi si a-i dongo e pasa anga a
I see he-PROG go.down PROG pass with DET(sg)
siki pikin. (Ndyuka, OK3a)
sick child
'I saw him going down river with the sick child.'

b. a booko di lontulontu tafa. (Saramaccan)
he break DET(sg) roundround table
'He broke the round table.'

c. xi ɛ́xɛ́ mɛ́ kʊ́kʊ́ lɛ nɔ́ dɛ́ kʊ́tɔ́nʊ́ ɔ.
place REL person deaddead PL PR LOC name the
'...the place where the corpses are at Cotonou.' (Gbe, Xwela1)

[19]It is not quite clear why attributive adjectives occur prenominally in the Surinamese creoles and postnominally in their substrate, including Kikongo. A possible explanation could be that the Surinamese languages inherited the constituent order in the NP from the predecessor pidgin or second language varieties of English which served as inputs to the formation of the SPC.

d. emɛ̄ ɖaxó elĭmɔ̄ wá tɔ ɔ́ nū. (Gbe, Maxi1)

person old Elimon come water the mouth

'The elder Elimon came to the well.'

Like typical adjectives, property items in both language groups may also be conjoined in the noun phrase (77). They are typically juxtaposed without a conjunction.

(77) a. wan gaan bigi fatu mabee. (Ndyuka, PM17a)

DET very big fat type of fruit

'a very big and fat mabee.'

b. yi awu gbo wewei lɔ na. (Gbe, Xwela)

take shirt big white DET give-me

'give me the big white shirt.'

Finally, property items functioning as noun modifiers can be modified by adverbs suggesting that they may be the head of an adjectival phrase. In Ndyuka adverbial modifiers generally precede property items in an adjectival phrase (77&78a) but ideophones functioning as adverbial modifiers generally follow it (79). In Gbe both kinds of modifiers follow the adjective.

(78) a. wan gaan langa pisi beele N. langa gi en.

DET very long piece bread N hand give her

'N. handed her a very long piece of bread.' (Ndyuka, PM12a)

b. emɛ kpikpɛn gãdʒi. (Gbe, Xwela)

person heavy very

'a very heavy person'

(79) a. wan deki gugugu wan. (Ndyuka, OK4b)

DET fat IDEO one

'a very fat one (person).'

b. nyɛ gli kpowunkpowun ce nɔhun. (Gbe, Maxi3)

man short IDEO my similar

'a very short man like me.'

This suggests that property items in the Surinamese creoles and Gbe display the same behavior when they occur in attributive position and they are clearly adjectives.

An important difference between Ndyuka and Gbe is found in the relationship that exists between property items in predicative and attributive position: In Gbe the majority of property items from all semantic types are always reduplicated when they function as attributive adjectives (80) while in Ndyuka they are not (81).

(80) a. emĭ ba agbɔ xúxú ɖe ă. (Gbe, Maxi3)

we want vegetable drydry DET NEG

'We don't want dry vegetables.'

b. e ɖɔ asán tantɔn di ɔn é na xú.

they say day eight now DET it FUT dry

'They say in eight days now it will be dry.' (Gbe, Maxi3)

(81) a. ai baala, tyali kondee, tyali goontapu. (Ndyuka, OK3b)
yes brother sad country sad world
'Yes brother, a sad country/village, a sad world.'

b. da i sa tyali wan dei gi a sama
then you can sad one day give DET(sg) person
namo. (Ndyuka, OK3b)
necessary
'Then you could definitely mourn one day for the person.'

In Ndyuka only certain property items which have traditionally been categorized as transitive change of state verbs such as *faa* 'cut tree', *doo* 'split', *tei* 'tie', *boli* 'cook' and *fon* 'pound' have to always be reduplicated to function in attributive position; the unreduplicated form seems to be unacceptable in this position (82a). In Gbe such transitive change of state verbs are also always reduplicated when functioning as attributive modifiers (82b).

(82) a. gi mi a *fon/fonfon alisi. (Ndyuka)
give me DET(sg) pounded rice
'Give me the pounded rice.'

b. sɔ elan ɖaɖa/*ɖa naŋ. (Gbe, Aja)
take meat cookcook give-me
'Give me the cooked meat.'

In Gbe only a small number of verbal property items, usually bisyllabic ones, do not undergo a change in form when functioning as attributive adjectives. They include items such as *kpokpo* (A), *kpokpwi* (W) meaning 'short', *keke* (A), *kəkə* (W), *kikɛ* (X) meaning 'wide', *didi* (W), *(za/i)za* (X) meaning 'long', *lolo* (W) meaning 'big, fat', *ɖisɔ* (X) 'thin', *vivi* 'sweet, pleasant' (A, M, W, X), *fifo* (X) meaning 'light'.

(83) a. é mɔ́ zé awú zá lewlúé we ni.
they Past take shirt long like come to-him
'They brought a long shirt like that for him.' (Gbe, Xwela1)

b. awu lɔ za. (Gbe, Xwela)
shirt the long
'The shirt is long.'

The differences in the (derivational) relationships between predicative and attributive property items in Ndyuka and Gbe suggest that the Gbe languages did not serve as the (only) model for this area of grammar in the SPC.

It is possible, however, that the (derivational) relationships between predicative and attributive property items in Ndyuka might not be entirely representative of those that existed in the (early) SPC since in Saramaccan, another conservative descendant of the SPC, most property items from all semantic types seem to be always reduplicated in their attributive function (84a). Only few property items are found only in unreduplicated form in their attributive function (84b). Incidentally, some of these

property items are also not reduplicated in their attributive function in Gbe (84c). Whether there are more such similarities between Saramaccan and Gbe in this area is subject to further investigation.

(84) a. da mi di *dee/deedee hĕmpi. (Saramaccan)
give me DET(sg) dry shirt
'Give me the dry shirt.'

b. di saanan lio da wan baai/*baaibaai lio.
DET(sg) Surinam river COP one wide river
'The Surinam river is a wide river.'

c. etɔ cɛ keke lɔ. (Gbe, Aja)
water very wide DET
'The very wide river.'

Given that the relationships between (verbal) property items in predicative and attributive position in Gbe seems to be more similar to the ones found in Saramaccan than to the ones in Ndyuka it is possible that there was variation in this area of grammar in the SPC. Possible sources for this variation were the different first language strategies of the slaves and the strategies employed in the varieties of English that served as inputs to the SPC. The literature on Kikongo (Lumwamu, 1973), for example, suggests that property items are generally not reduplicated in their attributive function and in the varieties of English that served as inputs to the SPC, such as Bajan, property items are also generally not reduplicated in attributive position. This might suggest that there were at least two

strategies — reduplication or no reduplication — for deriving attributive adjectives from (verbal) property items that were available to the creators and early users of the SPC. Some varieties of the SPC (such as Saramaccan) might have employed reduplication as their primary strategy while in other varieties most property items might not have undergone any change to function as attributive adjectives (Ndyuka and Sranan Tongo), and yet other varieties of the SPC might have equally employed both of these strategies. This scenario is, however, subject to further investigation.

5. 6. 3. Reduplicated property items

In Ndyuka a wide variety of verbal property items may be reduplicated to express approximation (85a) or distribution (85b).[20] Like unreduplicated verbal property items they are fully verbal: They can be directly modified by TMA markers (85a), be predicate clefted (85c), and they may also function as transitive verbs (85d). They are processual and their current state reading is an entailment of their past process reading.

(85) a. sensten di a pikin de, de e nyoninyoni.
since REL DET (sg) child there they PROG smallsmall
'Since the child is there, they [the breasts] are always smallish.'
(Ndyuka, PM17b)

[20]This was also pointed out by Huttar and Huttar (1997).

b. en ede piipii moo du fi i. (Ndyuka)

his head peelpeel more one POSS your

'His head has gotten more bald spots than yours.'

c. na natinati den natinati a osu.

FOC wetwet they wetwet DET (sg) house

'They made the house KIND OF WET.'

d. den baakabaaka mi buuku.

they blackblack my trousers

'They made my trousers blackish.'

These reduplicated property items may also function as attributive property items in Ndyuka (86). As attributive property items they also express approximation or distribution.

(86) a. ne en gaandigaandi yuu a kon ya.

LOC his oldold hour he come here

'During his middle aged years he came here.' (Ndyuka, PM11b)

b. a man ya gaandigaandi. (Ndyuka)

DET (sg) man here oldold

'The man is middle-aged.'

This type of reduplication to express approximation or distribution seems to be also wide spread in Sranan Tongo (Winford, 1997) but it is relatively uncommon in

Saramaccan according to my Saramaccan informant.[21] My Gbe informants also rejected an approximative or distributive reading for reduplicated property items functioning as attributive adjectives or as verbs. This suggests that this process of reduplication in Ndyuka was not modeled on Gbe.

5.7. Summary and conclusion

The comparison of copular and ascriptive constructions in Ndyuka and in its Gbe substrate reveal properties shared by both languages (87) and those not shared by them (88). Below I briefly summarize these properties.

(87) Properties shared between Ndyuka and Gbe

1. Predicative equative and possessive constructions

   a. They are expressed as either typical subject-copula-complement constructions or as topic-comment constructions.

   b. In topic-comment-type equative and possessive constructions the NP to which some entity is being related and the possessed entity are expressed as topics and the entity which is being related and the possessor are expressed as comments. The topic and the comment have separate intonational contours, and the comment is combined with a presentational focus marker.

[21]My own informant work and Winford (1997) also suggest that in (urban) Sranan Tongo reduplicated property items which are complements to *de* may also (and more readily) express approximation.

c. In identification-denoting equative constructions in Ndyuka and Gbe the topic/subject is typically combined with the identificational focus marker.

d. The presentational focus marker *(n)a* in Ndyuka and *(e)nyi* in Gbe may also function as an equative and possessive copula.

e. The presentational focus marker or the copula may be absent in constructions whose subject is 'today' etc.

f. The presentational focus marker *(n)a* in Ndyuka and its Gbe counterparts *yɔ* (A) and *wɛ* (M) cannot be preceded by the negation marker.

g. The presentational focus marker *(n)a* in Ndyuka and the presentational focus markers *yɔ* (A), *wɛ* (M), *(y)e*, and *nɛ* (X) in Gbe are not compatible with TMA markers.

h. In tensed equative and possessive constructions only a verbal copula, *de* in Ndyuka and *nyi* in Gbe may occur.

i. The presentational focus marker *(n)a* in Ndyuka and the presentational focus markers *yɔ* (A), *wɛ* (M), *(y)e*, and *nɛ* (X) in Gbe are not compatible with unemphatic pronominal topics.

2. Other predicative constructions involving a copula

a. The copula *de* in Ndyuka and its Gbe counterparts can take LOCPs, locative adverbs, and various property denoting items as their complements.

b. The copula *de* in Ndyuka and its Gbe counterparts may also express existence and well-being.

c. The imperfective or progressive aspect markers in Ndyuka and Gbe are derived from the copula *de* in Ndyuka and its Gbe counterparts respectively.

d. The copula *de* in Ndyuka and its counterparts in the Aja, Fon, and Maxi varieties of Gbe are fully verbal.

3. Property items

a. Property items in Ndyuka and Gbe display syntactic behavior typical of transitive and intransitive verbs in these languages. They may be marked for tense, mood, and aspect, they can be predicate clefted, and they may be marked by the same adverbial modifiers that modify verbs.

b. Most property items in Ndyuka and Gbe functioning as intransitive verbs seem to have a non-stative and or processual interpretation: they take on an inchoative interpretation when marked by the progressive marker, they take on a completed process reading when marked by the completive marker, their current state reading is an entailment of their past action or completed process reading.

c. A small number of verbal property items from the human propensity and value semantic subgroups seem to be inherently stative or non-processual in Ndyuka and Gbe since their current state reading does not seem to imply the existence of a past process.

d. Property items in Ndyuka and Gbe may also function as typical attributive adjectives: They modify nouns, they may be conjoined in the NP, and they may be modified by adverbs of degree.

(88) Properties *not* shared between Ndyuka and Gbe

1. Predicative equative and possessive constructions

a. *(N)a* in Ndyuka is not verbal when functioning as a copula while *nyi* in Gbe functioning as a copula is fully verbal.

b. In Ndyuka the presentational focus marker *(n)a* is always preposed to the XP it focuses while the presentational focus markers *yɔ* (A), *wɛ* (M), *(y)e*, and *nɛ* (X) in Gbe are always postposed to the XP they focus.

c. *nyi* functioning as a presentational focus marker can only focus NPs while *(n)a* in Ndyuka functioning as a presentational focus marker can also focus other constituents.

2. Other predicative constructions involving a copula

a. In the Waci and Xwela varieties of Gbe the copulas *lə* and *ɖe* respectively are not fully verbal. In tensed constructions they are replaced by a verb meaning 'to stay'. In Ndyuka *de* is fully verbal.

b. *De* in Ndyuka is used as a copula in tensed and negative equative and possessive constructions. *De*'s Gbe counterparts *le* (A), *ɖɯ/ɖo* (M), *lə* (W),

and *ɖe* (X) are never found in tensed and negative equative and possessive constructions.

3. Property items

a. Most property items in Gbe are reduplicated to function as attributive adjectives while in Ndyuka most of them are not reduplicated.

b. In Gbe property items functioning as noun modifiers typically follow the noun they modify while in Ndyuka they precede the noun they modify.

c. In Ndyuka property items can be reduplicated to express approximation or distribution. They function like typical verbs in predicative position and like adjectives in attributive position. In Gbe property items cannot be reduplicated to express approximation.

The comparison of copular and ascriptive constructions in Ndyuka and Gbe showed that there are a number of important similarities between these constructions in Ndyuka and Gbe which strongly suggest that these constructions in the SPC were most likely modeled on those in Gbe.

Some of the differences between copular and ascriptive constructions in Ndyuka and Gbe are probably the result of influence from the other varieties that served as inputs to the formation of the SPC such as Kikongo and the varieties of English. The properties which are most likely the result of influence from the varieties of English are properties 1.b and 3.b in (88) which concern constituent order. The data suggest that the varieties of English probably contributed the general template for the order of constituents in the NP

and between a focus marker and the focused element since the order in Ndyuka is similar to the one found in varieties of English, including English-lexified creoles and differs from that found in Gbe. In addition, this study suggests that the varieties of English were the source of both the phonological shape and possibly of some of the syntactic and semantic features of the lexical items in the SPC.

(n)a's non-verbal categorial status when functioning as an equative or possessive copula (88.1.a) and the fact that is can focus other constituents besides NPs when functioning as a presentational focus marker is probably due to the fact that its (syntactic) behavior was only partially modeled on the copula/presentational focus marker *nyi* and more definitely on the presentational focus markers *yɔ* (Aja), *wɛ* (Maxi), *(y)e* (Waci) and *nɛ* (Xwela).

De's occurrence in tensed and negative equative and possessive constructions (88. 2.b) in Ndyuka is probably due to the fact that it is the only verbal copula in Ndyuka. The verbal categorial status of *de* in Ndyuka despite the non-verbal status of some of its Gbe counterparts might be due to the fact that *de*'s distribution was more readily modeled on some varieties of Gbe such as Fon/Maxi than on others such as Vhe (Waci). It is also possible that the Gbe copulas only became non-verbal after 1720.

It is not clear to me why most property items in Gbe are not reduplicated when they function as attributive adjectives. The only possible explanation is that this is the result of influence from either or both the varieties of English and Kikongo.

At this point it is not quite clear to me what the origin of property 3.c in (88) is. None of the varieties of Gbe or English seem to use reduplication to express approximation. It is, however, possible that this process of reduplication is related to the progressive reduplication in Gbe. That is, in Gbe intransitive verbs are reduplicated to express the meaning 'in process' which is closely related to an approximative meaning of property items. This possibility is, however, subject to further investigation.

CHAPTER 6

CREOLE FORMATION

6. 0. Introduction

This chapter addresses the following issues. First, it summarizes the findings from this study. Second, it discusses what the findings from this case study suggest about the formation of the SPC. Third, it discusses how the formation of the SPC relates to other cases of contact-induced language change or creation. Fourth, it evaluates the different theories of creole formation in the light of the findings from the present study.

6. 1. The role of the substrate in the formation of the Surinamese Plantation Creole: Summary of the findings

The aim of this study was to determine the impact of the substrate languages in the formation of the SPC by analyzing sociohistorical data about the nature of the contact

setting in which the SPC emerged and by comparing two subsystems of grammar in a modern descendant of the SPC and in the modern descendants of its (primary) substrate. This involved addressing three issues. First, what was the nature of the substrate input, second, what was the degree of its involvement, and third, what were the mechanisms that gave rise to it.

The findings from the sociohistorical analysis in Chapter Three and the linguistic analysis in Chapters Four and Five suggest that the Gbe group of languages must have been the primary substratal input to the formation of the SPC. The findings suggest that the grammatical system of the SPC was primarily modeled on that of the Gbe group of languages. The primary mechanism that must have given rise to the Gbe influence in the SPC must have been (first language) retention. That is, the creators of the SPC primarily employed or retained (grammatical) strategies from their first languages when they were forging the SPC. A secondary process must have been substrate retention or transfer during shift by speakers of Gbe to Gbe-influenced varieties of the SPC.

The discussion of the early history of Surinam suggested that the SPC probably formed between roughly 1680 and 1720. In the early part of this period (1680-1695) a situation seems to have obtained on the plantations in which newly arriving slaves made up the majority of the plantation population but most likely did not share a common means of communication since they came from two different language clusters, the Gbe and the Kikongo group of languages. These new slaves must have also, for the most part, had little opportunity or motivation to acquire the second language and/or pidgin varieties

of English spoken by the preexisting (slave) population due to their relative lack of close contact with its speakers. The preexisting population was clearly in the minority and it was relatively strictly separated from the new slaves both socially and physically. The new slaves were probably employed as field hands while the old slaves must have performed more skilled tasks not necessarily directly related to the cash crop production.

In this situation the new slaves, who must have mainly interacted among themselves, must have had a great need to forge a common means of communication. For this, they must have relied primarily on their native languages and secondarily on whatever common ground they shared. This suggests that the varieties of Gbe and Kikongo — their native languages — made up the substratal input to the formation of the SPC and that they were probably also the primary linguistic inputs to the formation of the SPC. In this kind of setting the grammatical features derived from the substrate probably emerged as the result of first language retention.

The strong Gbe influence in the SPC must have, however, become firmly established in the following period (1690-1720) when the slaves arriving during this period probably targeted the Gbe-influenced varieties of the SPC from the previous period as their model for (second) language learning since they were primarily speakers of Gbe varieties. It seems highly likely that the influence from Gbe in these Gbe-influenced varieties of the SPC must have also intensified during this period as the result of retention or transfer of features from the varieties of Gbe into the Gbe-influenced varieties of the SPC by these new Gbe-speaking slaves. That is, the features from the Gbe group of

languages in the SPC probably gained prominence as the result of the selection of the Gbe-influenced varieties over the Kikongo-influenced varieties of the SPC by Gbe-speaking slaves, and they were probably reinforced as the result of substrate retention from Gbe during shift to the (Gbe-influenced varieties of the) SPC by these new Gbe speakers.

The comparative analysis of SVCs in Ndyuka and Gbe revealed very close semantic and syntactic similarities between these constructions in the two languages. Both languages have the same three general types of SVCs: motion/change of location SVCs, thematic-role introducing SVCs, and resultative SVCs. They also involve the same range of SVCs within each of the three general types of SVCs. In both languages the SVCs within each of the three general types of SVCs employ serial verbs derived from the same kinds of main verbs in both languages. All the serial verbs perform highly similar functions, subcategorize for highly similar types of XPs to follow them, and combine with highly similar kinds of main verbal heads in both languages. With respect to their categorial status the analysis showed that so-called serial verbs in both languages fall into three rough categories. In both languages only serial items which precede the verbal head of the construction are fully verbal. Only a small group of serial items which occur following the verbal head behave like prepositions. The majority of serial items which occur following the verbal head display varying degrees of verbal and functional behavior. In addition, in both languages SVCs are either head-complement or adjunction constructions.

The far-reaching similarities between SVCs in Ndyuka and Gbe seem to confirm the findings from the sociohistorical analysis which suggested that the Gbe group of languages were the primary linguistic input to the formation of the SPC and that retention of strategies or the abstract syntactic and semantics system from Gbe must have been the primary mechanism responsible for the emergence of substrate influence in the SPC.

The comparison of copular and ascriptive constructions in Ndyuka and Gbe also revealed very close similarities between the two languages. In both Ndyuka and Gbe copular and ascriptive constructions have the same general organization. In both Ndyuka and Gbe equative and possessive constructions are expressed as subject-copula-complement constructions and, more commonly, as topic-comment constructions. In both languages the two referents are typically linked by a presentational focus marker in topic-comment constructions which combines with the comment NP. One of the presentational focus markers in Gbe and the (only) presentational focus marker in Ndyuka may also function as a copula in equative and possessive constructions. In both Ndyuka and Gbe equative constructions denoting identification are distinguished from class membership denoting constructions. In identification-denoting constructions the topic is typically marked or combined with the identificational focus marker. In addition, one of the presentational focus markers in Gbe and *(n)a* in Ndyuka functioning as a linking element between a topic and a comment are also not verbal. In both languages they have to be replaced by a verbal copula in tensed constructions. Finally, in some varieties of Gbe and

in Ndyuka the presentational focus marker may also function as an identificational focus marker.

In both Ndyuka and Gbe non-equative and possessive constructions employ a different copula. This copula has a highly similar distribution in both languages: It may take a wide variety of non-verbal complements including LOCPs, adjectives, numerals. It may also function as an existential verb and is closely related to the imperfective marker. The difference in their distribution — *de* in Ndyuka also occurs in tensed equative and possessive constructions — seems to be due to extension since *de* is the only verbal copula in Ndyuka.

In the area of attributive predication it was shown that most property items in both languages function as intransitive processual verbs in predicative position. Some of these items may also function as transitive verbs and a small number of them are inherently stative. Property items may also function as typical nominal modifiers. In this function they are, however, typically reduplicated in Gbe but not in Ndyuka which might be suggestive of variation in this area of grammar in the early SPC since they are also reduplicated in Saramaccan, a sister language of Ndyuka.

As in the case of SVCs, the comparison of the area of copular and ascriptive predication also revealed a great deal of striking similarities between such constructions in Ndyuka and Gbe which suggest that this area of the predicate system in the SPC was closely modeled on that of Gbe. The findings from this area of grammar then also confirm that the Gbe varieties served as the primary input to the formation of the SPC and that

features from Gbe must have emerged in the SPC as the result of retention of grammatical strategies from Gbe by native speakers of Gbe.

6. 2. Sources and mechanisms in creole formation: Evidence from the formation of the Surinamese Plantation Creole

The findings from the present study suggest that the formation of the SPC was a case of contact-induced language creation involving both substrate retention and borrowing from superstrate varieties as argued by supporters of what I have preliminarily called dynamic approaches to creole formation (Winford, 1998a) in Chapter One and by supporters of the substrate hypothesis. The sociohistorical analysis suggests that the SPC was probably forged by the slaves arriving between 1680 and 1695 due to the absence of a common means of communication among them. It is relatively unlikely that the formation of the SPC is the result of targeted (second) language learning, however. The main agents in this formation process must have not only had relatively little exposure to the second language and pidgin varieties of English spoken by the existing (slave) population but more importantly, they must have also had little motivation to fully acquire them. It seems that rather than actively aiming to acquire a particular language these slaves were probably targeting whatever common ground they shared in common and making guesses and attempts at mutual communication.

The common ground that they shared must have primarily consisted of the language variety(s) that they were taught or exposed to during the process of seasoning. These

varieties were probably some (actively) 'simplified' or foreigner-talk-type varieties of the second language or pidgin varieties of English current among the early slaves that these early slaves employed in their interactions with the new slaves. Native varieties of English were most likely not part of the common ground since by the middle of the 1670s most native speakers of English had already left the colony of Surinam. It is also unlikely that during this period other European language varieties could have served as a common ground in the contact setting in which the SPC emerged since there were only a few Europeans on every plantation and they seem to have been socially, professionally, and physically clearly separated from the (new) slaves.

The guesses and attempts at mutual communication that the new slaves were making probably involved making interlingual associations between lexical items in the common ground and in the native language(s) of the (new) slaves and then employing these lexical items from the common ground according to the grammatical strategies in their native languages. That is, rather than using these lexical items according to their original syntactic and semantic properties, they were reinterpreted according to the native languages of the (new) slaves and 'acquired' the syntactic and semantic properties of their (perceived) counterparts in the native languages of the (new) slaves.

This scenario then suggests that the formation of a creole did *not* simply involve mapping of superstrate phonetic strings onto native language grammatical structures as argued by Lefebvre (1993, p. 254). The evidence from this study suggests that there was a more active interaction between the superstrate or what I call the common ground and

the substrate. The creators of the SPC did not simply maintain their first language grammar and relabel their lexicon with phonetic strings derived from English. Instead, they must have established some kind of (perceived) functional or semantic congruence between lexical items or entire strings of words in the common ground and in their native languages and then reanalyzed those lexical items and strings of words in the common ground according to grammatical strategies from their native language(s).

This kind of process can also explain how, for example, a locative adverb such as 'there' can come to function as a copula. When confronted with predicative locative constructions in which 'there' functioning as a (non-specific) locational adverb occurred juxtaposed between an entity and a (more specific) location-denoting phrase, the native speakers of Gbe, based on their native Gbe grammar, interpreted it as a (locative) copula. Once 'there' was identified as an equivalent of the Gbe copula found in predicative locative constructions, it automatically 'acquired' the properties and distribution of this Gbe copula and started occurring in all the contexts in which its Gbe counterpart occurred at the time.

The above-sketched interaction between the common ground and the native languages of the creators of the SPC is also able to explain why some features of the substrates were not at all or only partially incorporated into the SPC and why other features, such as the two presentational focus markers in Gbe, were merged in the SPC. If the common ground did not make available lexical items or specific strings of words with which a feature in the native languages of the creators of the SPC could be identified, that

grammatical feature would have either been omitted or that feature would have merged with another similar feature.

This process is also able to explain how some structural features, such as word order, from the varieties of English entered the grammar of the SPC. If such features, such as word order in the NP, were part of the common ground they would have simply been taken over or borrowed just like the lexical items to maximize comprehension between speakers of different mother tongues.

Finally, the study also showed that influence from (a particular) substrate does not necessarily come about as the result of a single process but is probably the result of a two step process as suggested by Mufwene (1990). It first emerges in the speech of (some) speakers but then it has to be perpetuated by the community at large in order to become an established feature of the language. In the case of the SPC, most of the attested Gbe features in its grammar probably originally emerged in the second contact setting but it seems unlikely that they would have all been used throughout the entire plantation community since it consisted of an equal number of Kikongo speakers who would have probably not used these features but possibly passively known or understood them. These features probably only became wide-spread or conventionalized in the SPC-speaking community in the third period when the Gbe-influenced varieties rather than the Kikongo-influenced varieties of the SPC functioned as targets of second language learning for the new slaves who were predominantly speakers of Gbe.

6. 3. Creole formation and other cases of contact-induced change or creation

The findings from the comparative analysis of SVCs and copular and ascriptive constructions in Ndyuka and Gbe (Chapters Four and Five) suggest that the outcome of creole formation (in Surinam) resembles but is not entirely the same as the outcome of other cases of contact induced-language change or creation such as bilingual mixed languages and shift. According to Winford (1998a) creoles might be profitably compared to bilingual mixed languages which involved retention of the structural system of one language and the replacement of large portions of its lexicon with lexical items from another language. In bilingual mixed languages such as Media Lengua and Michif, and intra-sentential code-switching, as in the case of creoles such as the SPC, the structural system is derived from the (original) native language of its speakers and the lexicon is derived from some foreign language. The lexifier language may, however, also have some, usually very limited, structural influence on the new variety. One important difference between them is, however, that in bilingual mixed languages only content morphemes are derived from the superstrate while system morphemes are maintained in their original shape (Winford, 1998a). In creoles both system and content morphemes are derived from the superstrate. The relatively complete replacement of the native lexicon, including system morphemes, in creoles such as the SPC is probably related to a second difference between creoles such as the SPC and bilingual mixed languages. The latter emerged in bilingual situations in which all the creators shared the same first language (Thomason and Kaufman, 1988) while the former emerged in situations in which the creators did not share

their first language and were therefore not able to retain such elements from their first languages since they would have obstructed the very communication for which they were created (Winford, 1998a).

The SPC can also be said to resemble outcomes of language shift involving (heavy) substratum transfer or interference typically found in cases of untutored second language acquisition. In cases of shift with heavy substratum inferences the superstrate or target language gets restructured under the influence of the first language of its acquirers. Such restructuring leads to the replacement of target language forms, introduction of new forms or distinctions, and the loss and reinterpretation of existing target language forms (Odlin, 1990, 1992; Winford, 1998a). That is, as in the case of the SPC, in cases of shift involving heavy substratum interference it is primarily "the abstract syntactic and morphosyntactic categories" (Winford, 1998a) and the syntactic and semantic properties of lexical entries which are retained from the first language(s) of their creators and the phonological shapes and possibly some of the syntactic and semantic properties of all or most of the system and content morphemes are derived from the superstrate. One of the important differences between cases of shift and creoles such as the SPC is, however, that the former generally arise in bilingual settings while the latter emerge out of linguistically more heterogeneous settings. Another difference relates to the question of the target of learning. In second language acquisition speakers clearly target some language for acquisition while in the formation of creoles such as the SPC most of the creators do not have a target in the same sense as in second language acquisition (Baker, 1990).

This brief discussion suggests that the formation of creoles such as the SPC seems to be somewhat intermediary to case of bilingual mixed languages involving first language retention and language shift involving heavy substratum interference. Creoles such as the SPC resemble both bilingual mixed languages and outcomes of shift involving heavy substratum interference in that they both involve a great deal of retention of structural features from the first language of their creators. Creoles such as the SPC differ from both cases of language shift and bilingual mixed languages in that they typically arise in multilingual settings in which the creators do not have a common first language. Creoles such as the SPC resemble cases of bilingual mixed languages in that they emerge in settings in which the creators do not seem to have a real target of language learning as is typically found in cases of shift. Creoles such as the SPC however resemble cases of shift involving heavy substratum transfer in that in both cases the creators reinterpret lexical items and strings of words according to grammatical strategies derived from their native language(s).

Whether the process of the emergence of creoles like the SPC was really like cases of shift involving heavy substrate transfer or retention, as argued by Thomason and Kaufman (1988) and Winford (1998a) or whether it resembled more closely the formation of bilingual mixed languages is relatively difficult to determine at this point since it would require detailed historical documentation of the emerged of the SPC which, to my knowledge, is not available at this point. That is, the questions is whether the new slaves acquired a (highly) simplified code (a pidgin??) of the varieties of English upon arrival in Surinam and then gradually expanded it? Or whether they used a simplified variety of

their native language and made it more transparent to speakers of other native languages by replacing lexical items and difficult to understand strategies with material from their common ground? In my view it seems best to assume that the SPC emerged as a continuum of varieties which involved different degrees of influence from the Gbe or Kikongo substrate and the varieties of English depending on the specific contact setting its speakers were involved in. Accordingly, this would suggest that at one end of the continuum, varieties of the SPC (whose creators and speakers were not able to acquire much of the varieties of English) resembled more closely cases of language maintenance. The creators of such varieties probably used a simplified variety of their first language and borrowed features, primarily lexical items, from the varieties of English to make their variety more intelligible to speakers of other mother tongues. Most of the features from the varieties of English, however, probably entered such varieties through secondary borrowing from other more English-like varieties of the SPC. At the other end of the continuum the emergence of the varieties of the SPC (whose speakers and creators were in a position to acquire a fair amount of the varieties of English) was probably more similar to language shift involving (heavy) substratum transfer. The creators of such varieties probably shifted to (simplified) varieties of the varieties of English for most of their communication and transferred mainly structural features from their native languages into these varieties. In these cases the slaves can be said to have expanded the contact vernacular using structures from their native language.

6. 4. Assessing existing theories of creole formation

The findings from this study confirm theories of creole formation which maintain that creole formation is the result of contact-induced language creation in which people who do not have a language in common but are in need of a common language create a contact language based on their native languages and whatever common ground they shared (Winford, 1998a). They employ various mechanisms also found to operate in other contact settings such as retention of strategies from their first languages, borrowing of lexical items and a limited number of strategies from their common ground, usually the language varieties they are exposed upon arrival, and other mechanisms such as regularization, reduction, extension etc. which are also commonly found to operate in all contact settings. Moreover, this study also confirms that the superstrate input probably consisted of different second language and pidgin varieties rather than one homogeneous variety.

The findings from this study also confirm the primary tenets of the substrate hypothesis, namely that first, creoles were created by adults and second, that the native languages of their creators played an important role in the formation of creoles. This case study, however, also challenges some of the assumptions of the substrate hypothesis: First, creoles like the SPC do not seem to clearly be the result of contact-induced language change since it does not seem to actually involve changing of one language under the influence of another, as is the case in typical cases of contact-induced language change. It seems more accurate to assume that they are the result of contact-induced language

creation in which speakers combine the linguistic material coming from different languages, their first languages and the whatever other languages they have access to, to build a new language. Second, the formation of creoles like the SPC probably also did not involve either language maintenance or (targeted) shift as defined in (Thomason and Kaufman, 1988) but most likely processes which are closely akin to but not the same as both of these. Finally, this study also calls into question that relexification as defined by Lefebvre (1993) played a role in the formation of creoles such as the SPC.

The study also calls into question superstratist approaches to creole formation for the following reasons: First, the findings from this study show that creoles like the SPC cannot be said to directly descend from the second language varieties of the superstrates spoken by the early slaves since the early slaves could not have had much contact with them. And, more importantly, the linguistic evidence clearly shows that the grammatical Second, the second language varieties of the superstrate also most likely did not provide the primary building blocks to the formation (of the structural system) of the SPC. This study suggests that the substrate must have played a much more important role in this context. Third, this study also shows that the substrate continues to influence the creole after its initial emergence as the result of substratum transfer during shift.

This study also challenges the tenet of what I have called the diffusionist hypothesis in Chapter One in that it shows that it is relatively unlikely that the SPC is a changed later version of the varieties of English which served as inputs to the SPC. The make-up of the contact setting must have not given most of the new slaves in the second

contact setting sufficient access to these varieties of English which would have allowed them to fully acquire them.

The evidence presented above also clearly challenges the tenets of the bioprogram hypothesis (Bickerton, 1981, 1984, 1989; Byrne, 1987; Veenstra, 1996) which maintains that creoles were created by children who had recourse to the blue-print of language, presumably innate to the human species, to develop a viable variety of language. The evidence from this study shows that the tenets of bioprogram hypothesis cannot account for the emergence of the SPC for the following reasons: First, during the formation of the SPC — in the second period — the number of children in Surinam must have been relatively small and it seems unlikely that the majority of the (adult) slaves would have relied on a (small number) of children for the formation of a viable variety of language (Singler, 1992, 1993). Second, most slaves, including their children, would have had sufficient access to speakers of their native language and probably also some, though probably very limited, access to the varieties of English spoken by the preexisting slaves. Given that they would have had access to viable varieties of language it seems highly unlikely that they would have made recourse to some as of yet relatively undefined blueprint of language rather than their first languages and whatever knowledge they had been able to acquire of other languages such as the varieties of English when forging the SPC. Third, the close and detailed structural similarities which were found to exist between Ndyuka and Gbe suggest that first language retention or continuities, as he calls it, rather than universal processes of creolization must have had priority in the process of

creole formation. In addition, the processes of change found in creole formation are also found to varying degrees in other contact vernaculars suggesting that, by Occam's razor, a comparative historical approach to creoles proves more adequate. Fourth, the detailed structural similarities between Ndyuka and Gbe also suggest that universal strategies such as the elimination of structural complexity and the (re)interpretation of strings in a maximally unmarked way probably only operated fairly minimally in the formation of the SPC, as in most contact settings. By and large, the structural system of the SPC can be fairly precisely traced primarily to the structural system of its Gbe substrate and to a much lesser extent to that of the varieties of English. Fifth, as attested in this study and in the literature on language contact (Odlin, 1989; Thomason and Kaufman, 1988; Thomason, 1993, 1997 etc.) language change or creation occurs primarily in the interaction between speakers of different native languages rather than in inter-generational language transmission as claimed by supporter of the bioprogram.

BIBLIOGRAPHY

Abbott, B. (1976). Right node raising as a test for constituenthood. *LI, 7*, 639-642.

Aceto, M. (1996). Early Saramaccan syllable structure: An analysis of complex onsets from Schumann's 1778 manuscript. *JPCL, 11*, 23-44.

Akuetey, C. (1995). Are le and li dialectal variants in the Ewe language? *Journal of West African languages, 25*, 75-84.

Alleyne, M. (1993). Continuity versus creativity in Afro-American language and culture. In S. S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 167-181). Athens, GA: University of Georgia Press.

Alleyne, M. (1987). Predicate structures in Saramaccan. In M. Alleyne (Ed.), *Studies in Saramaccan language structure* (pp. 71-88). Mona, Jamaica: Folklore Studies Project, University of the West Indies.

Alleyne, M. (1986). Substrate Influence: Guilty until proven innocent. In P. Muysken & N. Smith (Eds.), *Substrata versus universals in creole genesis* (pp. 301-315). Amsterdam: John Benjamins.

Alleyne, M. (1980). *Comparative Afro-American: An historical-comparative study of English-based Afro-American dialects of the New World.* Ann Arbor: Karoma.

Alleyne, M. (1971). Acculturation and the cultural matrix of creolization. In D. Hymes (Ed.), *Pidginization and creolization of languages* (pp. 169-186). Cambridge: Cambridge University Press.

Arends, J. (1998). The origin of the Portuguese element in the Surinam Creoles. (to appear in: In M. Huber & M. Parkvall (Eds.), *Spreading the word: Papers on the issue of diffusion of Atlantic Creoles*. London: Westminster University Press.)

Arends, J. (1995). Demographic factors in the formation of Sranan. In J. Arends (Ed.), *The early stages of creolization* (pp. 233-285). Amsterdam: John Benjamins.

Arends, J. (1994a). [Review of the book *Surinaams contrast roofbouw en overleven in een Caraibische plantagekolonie 1750-1863*]. *JPCL, 9*, 389-398.

Arends, J. (1994b). Short note: The African-born slave child and creolization. *J PCL, 9*, 115-120.

Arends, J. (1994c). De Afrikaanse wortels van de creooltalen van Suriname. *Gamma/TTT, 3*, 115-128.

Arends, J. (1989). *Syntactic developments in Sranan.* Unpublished dissertation, Catholic University of Nijmegen.

Arends, J. (1986). Genesis and development of the equative copula in Sranan. In P. Muysken & N. Smith (Eds.), *Substrata versus universals in creole genesis* (pp. 103-128). Amsterdam: John Benjamins.

Arends, J. & A. Bruyn (1995). Gradualist and developmental hypotheses. In J. Arends, P Muysken, & N. Smith (Eds.), *Pidgins and Creoles: An introduction* (pp. 111-120). Philadelphia/Amsterdam: John Benjamins.

Baker, M. (1989). Object sharing and projection in serial verb constructions. *LI, 20*, 513-553.

Baker, P. (1993). Assessing the African cintribution to French-based creoles. In S. S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 123-155). Athens, GA: University of Georgia Press.

Baker, P. (1991). Column. Causes and effects. *JPCL, 6*, 267-278.

Baker, P. (1990). Column. Off target? *JPCL, 5*, 107-119.

Baker, P. (1984). Agglutinated French articles in Creole French: Their evolutionary significance. *Te Reo, 27*, 89-129.

Baker, P. (1982). *The contribution of non-francophone immigrants to the lexicon of Mauritian Creole*. Unpublished dissertation, School of Oriental and African Studies, University of London.

Baker, P. & C. Corne (1986). Universals, substrata and the Indian Ocean Creoles. In P. Muysken & N. Smith (Eds.), ***Substrata versus universals in creole genesis*** (pp. 163-183). Amsterdam: John Benjamins.

Baker, P. & C. Corne (1982). ***Isle de France Creole: Affinities and origins***. Ann Arbor: Karoma.

Bakker, P. & R. Papen (1997). Michif: A mixed language based on Creole and French. In Thomason, S. (Ed.), *Contact languages. A wider perspective* (pp. 295-263). Amsterdam: John Benjamins.

Bamgbose, A. (1974). On serial verbs and verbal status. *Journal of West African Languages, 9*, 17-48.

Beeldsnijder, R. (1994). *'Om werk van jullie te hebben.' Plantageslaven in Suriname, 1730-1750*. Bronnen voor de studie van Afro-Suriname, 16. Utrecht: CLACS & Stichting IBS.

Bendor-Samuel, J. (1989). *The Niger-Congo languages*. New York: University Press of America.

Bickerton, D. (1994). The origins of Saramaccan syntax: A reply to John McWhorter's "Substratal influence in Saramaccan serial verb constructions". *JPCL, 9*, 65-77.

Bickerton, D. (1992a). The sociohistorical matrix of creolization. *JPCL, 7*, 307-318.

Bickerton, D. (1992b). On the Thomason-Kaufman critique of the bioprogram. *JPCL, 7*, 101-118.

Bickerton, D. (1991). On the supposed gradualness of creole development. *JPCL, 7*, 25-58.

Bickerton, D. (1989). The lexical learning hypothesis and the pidgin-creole cycle. In M. Pütz & R. Dirven (Eds.), *Wheels within wheels: Papers of the Duisburg symposium on pidgin and creole languages* (pp. 11-32). Frankfurt am Main: Peter Lang.

Bickerton, D. (1986). Creoles and West African languages: A case of mistaken identity? In P. Muysken & N. Smith (Eds.), *Substrata versus universals in creole genesis* (pp. 25-40). Amsterdam: John Benjamins.

Bickerton, D. (1984). The language bioprogram hypothesis. *Behavioral and Brain Sciences, 7*, 173-221.

Bickerton, D. (1981). *Roots of language*. Ann Arbor: Karoma.

Bickerton, D. (1973). On the nature of a creole continuum. *Language, 49*, 640-669.

Bickerton, D. (1975). *Dynamics of a creole system*. Cambridge, England: Cambridge University Press.

Bickerton, D & S. Iatridou (1987). Verb serialization and empty categories. Unpublished document. University of Amsterdam.

Boretzky, N. (1993). The concept of rule, rule borrowing, and substrate influence in creole languages. In S. S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 74-92). Athens, GA: University of Georgia Press.

Boretzky, N. (1983). *Kreolsprachen, Substrate und Sprachwandel*. Wiesbaden: Harrassowitz.

Brousseau, A.-M. (1989). De 'nu-flo' a 'po-bouch': hypotheses sur l'origine des composes en haitien. *Canadian Journal of Linguistics, 34*, 285-312.

Brousseau, A-M., Filipovich, S. & C. Lefebvre (1989). Morphological processes in Haitian Creole: The question of substratum and simplification. *JPCL, 4*, 213-243.

Bruyn, A. (1996). The origins of the relative clause marker *di(si)* in Sranan. Paper presented at the meeting of the Society for Pidgin and Creole Linguistics, San Diego.

Bruyn, A. (1995a). *Grammaticalization in creoles: The development of determiners and relative clauses in Sranan*. Studies in language and language use, 21. Amsterdam: IFOTT.

Bruyn, A. (1995b). Relative clauses in early Sranan. In J. Arends (Ed.), *The early states of creolization* (pp. 149-202). Amsterdam: John Benjamins.

Bruyn, A. & T. Veenstra (1993). The creolization of Dutch. *JPCL, 8*, 29-80.

Byrne, F. (1993). Rules, language contact, substrate, and what not: a reply to Boretzky. In S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 93-105). Athens: University of Georgia Press.

Byrne, F. (1987). *Grammatical relations in a radical creole: Verb complementation in Saramaccan*. Amsterdam: John Benjamins.

Capo, H. B. C. (1988). *Renaissance du Gbe: Réflexions critiques et constructives sur l'Eve, le Fon, le Gen, l'Aja, le Gun, etc.*. Hamburg: Helmut Buske Verlag.

Capo, H. B. C. (1984). "I" et "U" en Hwe et leur place dans la reconstruction du Proto-Gbe. *Journal of West African Languages, 13*, 3-18.

Carden, G. & W. Steward (1988). Binding theory, bioprogram, and creolization: Evidence from Haitian Creole. *JPCL, 3*, 1-67.

Carrington L. (1993). On the notion of "Africanism" in Afro-American. In S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 35-46). Athens: University of Georgia Press.

Clements, J. (1996). *The genesis of a language: The formation and development of Korlai Portuguese*. Amsterdam: John Benjamins.

Chaudenson, R. (1992). *Des iles, des hommes, des langues*. Evreux: Nathan.

Chaudenson, R. (1989). *Créoles et enseignement du français*. Paris: L'Harmattan.

Chaudenson, R. (1979). *Les créoles français*. Paris: Fernand Nathan.

Chaudenson, R. (1977). Toward the reconstruction of the social matrix of creole language. In A. Valdman (Ed.), *Pidgin and creole linguistics* (pp. 259-276). Bloomington: Indiana University Press.

Chaudenson, R. (1974). *Le lexique du parler creole de la Reunion*. 2 vols. Paris: Champion.

Comhaire-Sylvain, S. (1936). *Le creole hatien: morphologie et syntaxe*. Wetteren, Belgium: Imprimerie De Meester.

Corne, C. (1983). Substratal reflections: The completive aspect and the distributive numerals in Isle de France Creole. *Te Reo, 26*, 65-80.

DaCruz, M. (1994). Les constructions serielles en Fongbè. Approches Sémantique et syntaxique. *Travaux de Recherche sur le Créole Haïtien 20-21*. IQAM, Montréal.

DaCruz, M. (1992). Restrictions sémantiques dans les constructions sérielles avec sɔ́ 'prendre' et hɛ̀n 'tenir' en fongbè. *The Journal of West African languages, 22*, 115-134.

Dealeman, J. (1972). Kongo elements in Saramaccan Tongo. *Journal of African Languages, 11*, 1-44.

Dalby, D. (1971). Ashanti survivals in the language of the maroons. *African language studies, 12*, 31-51.

Delafosse, M. (1925). Survivances africaines chez les nègres "bosh" de la Guyane. *Anthropologie, 35*, 475-494.

Dixon, R. M. W. (1977). Where have all the adjectives gone? *Studies in Language, 1*, 19-80.

Dowty, D. (1991). Thematic proto-roles and argument selection. *Language, 67*, 547-619.

Duranti, A. (1997). *Linguistic anthropology*. Cambridge: Cambridge University Press.

Elst, D. van der (1971) . *The Bush Negro tribes of Surinam, South America: A synthesis*. Unpublished dissertation, Northwestern University, Evanston.

Escure, G. (1993). Focus, topic particles and discourse markers in the Belizian Creole continuum. In F. Byrne & D. Winford (Eds.), *Focus and grammatical relations in creoles languages* (pp. 233-249). Amsterdam: John Benjamins.

Escure, G. (1985). The Belizean copula: A case of semantic shift. In M. Dascal (Ed.), *Dialogue: An interdisciplinary approach* (pp. 265-81). Amsterdam/Philadelphia.

Eyck-Benjamins, N. van (1927). Suriname van 1651 tot 1668. [Transl. of parts from Williamson, 123]. *Nieuwe West-Indische Gids, 8*, 1-31

Fields, L. (1995). Early Bajan: Creole or non-creole? In J. Arends (Ed.), *The early states of creolization* (pp. 89-111). Amsterdam: John Benjamins.

Foley, W. & M. Olson (1985). Clausehood and verb serialization. In J. Nichols & A. C. Woodbury (Eds.), *Grammar inside and outside the clause* (pp. 17-60). Cambridge: Cambridge University Press.

Frajzyngier, I. (1984). On the origin of say and se as complementizers in Black English and English-based creoles. *American Speech, 59*, 207-210.

Gilman, C. (1993). A Bantu model for the seychellois 'pour-dire' complementizer. In F. Bryne & J. Holm (Eds.), *Atlantic meets Pacific, a global view of Pidginization and Creolization* (pp. 49-55), Amsterdam: John Benjamins.

Goodman, M. (1987). The portuguese element in the American creoles. In G. Gilbert (Ed.), *Pidgin and creole languages* (pp. 361-405). Honolulu: University of Hawaii Press.

Goodman, M. (1985). [Review of the book Roots of language]. *International Journal of American Linguistics, 51*, 109-137.

Grimes, B. (1988). *Ethnologue: Languages of the world.* Dallas: SIL.

Grimshaw, A. (1971). Some social forces and some social functions of pidgin and creole languages. In D. Hymes (Ed.), *Pidginization and creolization of languages* (pp. 427-446). Cambridge: Cambridge University Press.

Gumpertz, J., & R. Wilson. (1971). Convergence and creolization: a case from the Indo-Aryan/Dravidian border in India. In D. Hymes (Ed.), *Pidginization and creolization of languages* (pp. 151-167). Cambridge: Cambridge University Press.

Hair, P. E. (1967). Ethnolinguistic continuity on the Guinea Coast. *Journal of African History, 8*, 247-268.

Hancock, I. (1993). Creole language provenance and the African component. In S. S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 182-191). Athens. GA: University of Georgia Press.

Hancock, I. (1987). A preliminary classification of the Anglophone Atlantic creoles, with syntactic data from thirty-three representative dialects. In G. Gilbert (Ed.), *Pidgin and creole languages: Essays in memory of John E. Reinecke* (pp. 264-333). Honolulu: University of Hawaii Press.

Hancock, I. (1986). The domestic hypothesis, diffusion and componentiality. In P. Muysken, & N. Smith (Eds.), *Substrata versus universals in creole genesis* (pp. 71-102). Amsterdam: John Benjamins.

Hancock, I. (1971). *A study of the sources and development of the lexicon of Sierra Leone Creole*. Unpublished dissertation, University of London, School of Oriental and African Studies.

Hancock, I. (1969). A provisional comparison of the English-based Atlantic creoles. *African Language Review, 8*, 7-72.

Heine B., Claudi, U., & F. Hünnemeyer (1991). *Grammaticalization: A conceptual framework*. Chicago: Chicago University Press.

Hinskens, F. & C. van Rossem (1995). The Negerhollands word sender in eighteenth-century manuscripts. In J. Arends (Ed.), *The early stages of creolization* (pp. 63-88). Amsterdam: John Benjamins.

Hock H. & B. Joseph (1996). *Language history, language change and language relationship*. New York: Mouton de Gruyter.

Holm, J. (1988). *Pidgins and creoles* (Vol. 1). Cambridge, England: Cambridge University Press.

Höftmann H. (1993). *Grammatik des Fon*. Leipzig: Langensheidt.

Hoogbergen, W. (1992). Origins of the Suriname Kwinti Maroons. *Nieuwe West-Indische Gids, 63*, 27-59.

Hoogbergen, W. (1990a). The history of the Suriname maroons. In G. Barna Shute (Ed.), *Resistance and rebellion in Suriname: old and new* (pp. 65-102). Studies in Third World Societies, 43. Williamsburg: The College of William and Mary.

Hoogbergen, W. (1990b). Het verband tussen marronage en slavenopstanden in Suriname. *SWI Forum, 7*, 28-60.

Hoogbergen, W. (1989). Aluku. *Nieuwe West-Indische Gids, 63*, 175-198.

Hoogbergen, W. (1985). *De Boni-oorlogen, 1757-1860. Marronage en guerilla in Oost-Suriname*. Unpublished doctoral dissertation, Rijksuniversiteit te Utrecht, Utrecht.

Hoogbergen, W. (1983). Marronage en marrons, 1760-1863. De niet-gepacificeerde marrons van Suriname. In G. Willemsen (Ed.), *Suriname, de schele onafhankelijkheid* (pp. 75-110). Amsterdam: de Arbeiderspers.

Hoogbergen, W. (1978). *De Surinaamse weglopers van de 18e eeuw*. Bronnen voor de studie van bosneger samenlevingen, 1. Utrecht: Center for Caribbean Studies.

Hoogbergen, W. & M. de Theye (1986). Surinaamse vrouwen in de slavernij. In J. Reijs, E. Kloek, U. Jansz, A. de Wildt, S. Van Norden, & M. de Baar (Eds.), *Vrouwen in de Nederlandse kolonien: Zevende jaarboek voor vrouwengeschiedenis* (pp. 126-151). Nijmegen: Sun.

Hopper, P. J. & E. Traugott (1993). *Grammaticalization*. Cambridge: Cambridge University Press

Hünnemeyer, F. (1985). *Die serielle Verbkonstruktion im Ewe: Eine Bestandsaufnahme und Beschreibung der Veränderungstendenzen functional-spezialisierter Serialisierung*. Unpublished M.A. Thesis, Universität zu Köln.

Huttar, G. (1993). Identifying Africanisms in New World languages: How specific can we get? In S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 47-63). Athens: University of Georgia Press.

Huttar, G. (1986). KiKongo, Saramaccan, and Ndyuka. In B. Elson (Ed.), *Language in global perspective: Papers in honour of the 50th anniversary of the Summer Institute of Linguistics 1935-1985* (pp. 563-586). Dallas: Summer Institute of Linguistics.

Huttar, G. (1985). Sources of Ndjuka African vocabulary. *De Nieuwe West-Indische Gids, 59*, 45-71.

Huttar, G. (1981). Some Kwa-like features of Djuka syntax. *Studies in African linguistics, 12*, 291-323.

Huttar, G. & M. Huttar (1997). Reduplication in Ndyuka. In A. Spears and D. Winford (Eds.), *Pidgins and creoles: Structure and status* (pp. 395-414). Amsterdam: John Benjamins.

Huttar, G & M. Huttar (1994). *Ndyuka*. London and New York: Routledge.

Huttar, G. & E. Koanting (1993a). Verbs and adjectives: Categories or a continuum? Paper presented at the annual meeting of the Society for Pidgin and Creole Linguistics, 1993.

Huttar, G. & E. Koanting (1993b). Are Ndjuká comparative markers verbs? In F. Byrne & J. Holm (Eds.), *Atlantic meets Pacific: A global view of Pidginization and creolization* (pp. 165-174). Amsterdam: John Benjamins.

Jansen, B., Koopman, H. & P. Muysken (1978). Serial verbs in creole languages. *Amsterdam Creole Studies, 2*, 125-159.

Jondoh, E. (1980). *Some aspects of the predicate phrase in Gengbe*. Unpublished dissertation, Indiana University, Bloomington.

Joseph, B. (1978). *Morphology and universals in syntactic change: Evidence from Medieval and Modern Greek*. Unpublished dissertation, University of Alberta.

Joseph, B. & A. Zwicky (1990). *When verbs collide: Papers from the 1990 Ohio State mini-conference on serial verbs*. Ohio State University Working Papers in Linguistics, 39. Columbus, OH: Ohio State University Press.

Kahrel, P. (1987). Stative verb formation in Saramaccan. In M. Allyene (Ed.), *Studies in Saramaccan language structure* (pp. 71-88). Mona, Jamaica: Folklore Studies Project, University of the West Indies.

Keesing, R. (1991). Substrates, calquing and grammaticalization in Melanesian Pidgin. In E. C. Traugott & B. Heine (Ed.), *Approaches to grammaticalization: Focus on theoretical and methodological issues* (pp. 315-342). Amsterdam: John Benjamins.

Keesing, R. (1988). *Melanesian Pidgin and the Oceanic substrate*. Stanford: Stanford University Press.

Kiss, K. E. (1998). Identificational Focus versus Information Focus. *Language, 74*, 245-273.

Koopman, H. (1986). The genesis of Haitian: Implications of a comparison of some features of the syntax of Haitian, French, and West African languages. In P. Muysken & N. Smith (Eds.), *Substrata versus universals in creole genesis* (pp. 231-258). Amsterdam: John Benjamins.

Kouwenberg, S. (1996). Substrate or superstrate: What's in a name? *JPCL, 11*, 343-348.

Lamur, H. (1987). *The production of sugar and the reproduction of slaves at Vossenburg, Suriname 1705-1863*. Amsterdam: Center for Caribbean Studies.

Larson, R. (1991). Some issues in verb serialization. In C. Lefebvre (Ed.), *Serial verbs: grammatical, comparative and cognitive approaches* (pp. 185-210). Amsterdam: John Benjamins.

Law, P. & T. Veenstra (1992). On the structure of serial verb constructions. *Linguistic Analysis, 22*, 185-217.

Leerdam, H. (1956). Onze Boslanderbewoners, I-XXXIII. *De West*. Paramaribo: Surinam.

Lefebvre, C. (1997). Relexification in creole genesis: The case of demonstrative terms in Haitian Creole. *JPCL, 12*, 181-202.

Lefebvre, C. (1996). The tense, mood, and aspect system of Haitian Creole and the problem of transmission of grammar in creole genesis. *JPCL, 11*, 231-311.

Lefebvre, C. (1993). The role of relexification and syntactic reanalysis in Haitian Creole: Methodological aspects of a research program. In S. S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 254-279). Athens, GA: University of Georgia Press.

Lefebvre, C. (Ed.) (1991). *Serial verbs: Grammatical, comparative and cognitive approaches*. Amsterdam: John Benjamins.

Lefebvre, C. (1989). Instrumental take serial constructions in Haitian and in Fon. *Canadian Journal of linguistics, 34*, 319-337.

Lefebvre, C., Brousseau, A.-M. & S. Filipovich (1989). Haitian Creole morphology: French phonetic matrices in a West African mold. *Canadian Journal of Linguistics, 34*, 273-284.

Lefebvre, C. & J. Lumsden (1989). Les languages creoles et la theorie linguistique. *Canadian Journal of Linguistics, 34*, 249-272.

Lenoir, J. (1973). *The Paramccan Maroons: A study in religious acculturation.* Unpublished dctoral dissertation, The New School for Social Research, New York.

LePage, R. (1977). Processes of pidginization and creolization. In A. Valdman (Ed.), *Pidgin and Creole Linguistics* (pp. 222-225). Bloomington: Indiana University Press.

LePage, R. (1960). *Jamaican Creole*. London: Macmillan.

Lichtveld, L. (1928/9). Afrikaansche resten in de creoltaal van Suriname, I-IV. *West-Indische Gids, 10*, 391-402.

Lier, R.van (1971). *Frontier society: A social analysis of the history of Surinam* (R. Van Lier, Trans.). The Hague: Martinus Nijhoff (Original work published 1949 by Emmering).

Linde, J. van der (1966). *Surinaamse suikerheren en hun kerk: Plantagekolonie en handelskerk ten tijde van Johannes Basseliers, predikant en planter in Suriname, 1667-1753*. Wageningen: Veenman.

Lord, Carol. (1993). *Historical change in serial verb constructions*. Amsterdam: John Benjamins.

Lumsden, J. (1994a). Possession: Substratum semantics in Haitian Creole. *JPCL, 9*, 25-50.

Lumsden, J. (1994b). A comparison of the lexical semantic representations of French, Fongbe and Haitian Creole. Unpublished manuscript, Université du Québec à Montréal.

Lumwamu, F. (1973). *Essai de morphosyntaxe systematique des parlers kongo*. Paris: Klincsieck.

Luo, C. (1990). Cross-Categorial formal identity: A functional account. Unpublished manuscript, University of Manitoba, Canada.

Lyons, J. (1977). *Semantics, Vols 1&2*. Cambridge: University Press.

Manning, P. (1990). *Slavery and African life: Occidental, Oriental, and African slave trades*. Cambridge: Cambridge University Press.

McWhorter, J. (1997a). *Towards a new model of creole genesis*. New York: Peter Lang.

McWhorter, J. (1997b). Lost in transmission: A case for the independent emergence of the copula in Altantic creoles. In A. Spears and D. Winford (eds.) *Pidgins and creoles: Structure and status* (pp. 241-261). Amsterdam: John Benjamins.

McWhorter, J. (1997c). It happened at Cromantin: Locating the origin of the Atlantic English-based creoles. *JPCL, 12*, 59-102.

McWhorter, J. H. (1995). Sisters under the skin: A case for genetic relationship between the Atlantic English-based creoles. *JPCL, 10*, 289-333.

McWhorter, J. H. (1993). *Towards a new model of genesis: Competing processes in the birth of Saramaccan Creole*. Dissertation, Stanford University.

McWhorter, J. H. (1992). Substratal influence on Saramaccan serial verb constructions. *JPCL, 7*, 1-53.

Migge, B. (1998). Substrate influence in creole formation: The origin of *give*-type serial serb constructions in the Surinamese Plantation Creole. *JPCL, 13*,

Migge, B. (1995). The emergence of creole copulas: Evidence from Belize Creole. In E. Hume, R. Levine & H. Sydorenko (Eds.), *Studies in synchronic and diachronic variation. Working Papers in Linguistics, 46*, 63-85. Columbus, OH: The Ohio State University Press.

Migge, B. (1993). *Substrate influence in creole formation: The case of give-type and take-type serial verb constructions in Sranan*. Unpublished M.A. Thesis: The Ohio State University.

Milroy, J. (1992). *Linguistic variation & change*. Oxford, UK & Cambridge, MA: Blackwell.

Milroy, L. (1987). *Observing & analyzing natural language*. Oxford: Blackwell.

Milroy, L. (1980). *Language and social networks*. Oxford: Blackwell.

Mintz, S. (1971). The socio-historical background to pidginization and creolization. In D. Hymes (Ed.), *Pidginization and creolization of languages* (pp. 481-496). Cambridge: Cambridge University Press.

Mintz, S. & R. Price (1992). *The birth of Afro-American culture. An anthropological perspective*. Boston: Beacon Press. [first published in 1976 'An anthropological approach to the Afro-American past'. Philadelphia: Institute for the study of human issues.]

Mosel, U. (1980). Tolai and Tok Pisin: The influence of the substratum on the development of New Guinea Pidgin. *Pacific Linguistics, 73*.

Mufwene, S. S. (1996). The founder principle in creole genesis. *Diachronica, 13*, 83-134.

Mufwene, S. (1993a). African substratum: possibility and evidence. A discussion of Alleyne's and Hancock's papers. In S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 192-209). Athens: University of Georgia Press.

Mufwene, S. (1993b). Créole, créolisation, substrat, et autres notions apparentées: Quelques réflexions sur des îles, des hommes, des langues: Langues créoles - cultures créoles de Robert Chaudenson. *Etudes Créoles, 2*, 117-141.

Mufwene, S. (1991). [Review of the book *Créoles et enseignements du français. Français, créolisation, créoles et français marginaux: Problèmes d'apprentissage, d'enseignements des langues et d'aménagement linguistique dans les espaces créolophones*]. *JPCL, 6*, 148-155.

Mufwene, S. (1990). Transfer and the substrate hypothesis in creolistics. *Studies in Second Language Acquisition, 12*, 1-23.

Mufwene, S. (1986). The universalist and substrate hypothesis complement one another. In P. Muysken & N. Smith (Eds.), *Substrata versus universals in Creole genesis* (pp. 129-162). Amsterdam: John Benjamins.

Mulert, F. E. (1917). De bewoners van Suriname in 1675. *De Navorscher, 26*, 401-406.

Muyrers, S. (1993). *Het netwerk van de slaaf. Een onderzoek naar de contacten van Surinaamse plantagenslaven in de achttiende en negentiende eeuw*. Unpublished M.A. Thesis, Erasmus Universiteit Rotterdam.

Muysken, P. (1997). Media Lengua. In Thomason, S. (Ed.), *Contact languages. A wider perspective* (pp. 365-426). Amsterdam: John Benjamins.

Muysken, P. (1988). Lexical restructuring in Creole genesis. In N. Boretzky & W. Enninger & T. Stolz (Eds.), *Beiträge zum 4. Essener Kolloquium über "Sprachkontakt, Sprachwandel, Sprachtod" vom 7.10 - 10.10.87 a. d. Universität Essen* (pp. 193-209). Bochum: Studienverlag Dr. N. Brockmeyer.

Muysken, P. (1981). Halfway between Quechua and Spanish: The case for relexification. In A. Highfield & A. Valdman (Eds.), *Historicity and variation in creole studies* (pp. 52-78). Ann Arbor: Karoma.

Muysken, P. & N. Smith (Eds.) (1986). *Substrata versus universals in creole genesis*. Amsterdam: John Benjamins.

Muysken, P. & H. Van der Voort (1991). The binding theory and creolization: Evidence from 18th century Negerhollands reflexives. In F. Byrne & M. Huebner (Eds.), *Developments and structures of creole languages* (145-158). Amsterdam: John Benjamins.

Myers-Scotton, C. (1993). *Duelling Languages: Grammatical structure in codeswitching*. Oxford: Clarendon Press.

Ndayiragije, J. (1989). La source du déterminant agglutiné en créole haïtien. *Revue canadienne de Linguistique, 34*, 313-317.

Nylander, D. (1985). Serial verbs and the Empty Category Principle in Krio. *Canadian Journal of Linguistics, 30*, 15-31.

Odlin, T. (1992). Transferability and linguistic substrates. *Second Language Research, 8*, 171-202.

Odlin, T. (1990) Word-order transfer, metalinguistic awareness, and constraints on foreign language learning. In B. VanPatten & J. F. Lee (Eds.), *Second language acquisition/Foreign language learning* (95-117). Philadelphia: Multilingual Matters Ltd.

Odlin, T. (1989). *Language transfer: Cross-linguistic influence in language learning*. Cambridge: Cambridge University Press.

Oostindie, G. (1989). *Roosenburg en Mon Bijou. Twee Surinaamse plantages 1720-1870*. Caribbean series, 11. Dortrecht: Foris Publications.

Parkvall, M. (1995). The role of St Kitts in a new scenario of French Creole. In P. Baker (Ed.), *From contact to creole and beyond* (pp. 41-62). (Westminster Creolistics Series 1) London: University of Westminster Press.

Pazzi, R. (1979). *Introduction à l'histoire de l'aire culturelle ajatado*. Etudes et Documents en Sciences Humaines no. 1. Institut National des Sciences de l'Education, Université du Bénin, Lomé, Togo.

Plag, I. (1995). The emergence of taki as a complementizer in Sranan: On substrate influence, universals, and gradual creolization. In J. Arends (Ed.), *The early stages of creolization* (113-148). Amsterdam: John Benjamins.

Plag, I. (1993). *Sentential complementation in Sranan: On the formation of an English-based creole language*. Tübingen: Max Niemeyer.

Plag, I. (1992). From speech act verb to conjunction: The grammaticalization of *taki* in Sranan. *JPCL, 7*, 55-73.

Pochard, J.-C. & H. Devonish (1986). Deixis in Caribbean English-lexicon Creole. *Lingua, 69*, 105-20.

Pollard, C. & I. Sag (1994). *Head-driven phrase structure grammar*. Chicago: Chicago University Press.

Pollard, C. & I. Sag (1987). *Information-based syntax and semantics, volume, 1: Fundamentals*. CSLI Lecture Notes no. 13. Stanford: CSLI.

Polome, E. (1983). Creolization and language change. In E. Woolford & W. Washabaugh (Eds.), *The social context of creolization* (pp. 126-136). Ann Arbor: Karoma.

Postma, J. (1990). *The Dutch in the Atlantic slave trade, 1600-1815*. Cambridge: Cambridge University Press.

Price, R. (Ed.). (1979). *Maroon Societies: Rebel slave communities in the Americas*. [2nd. ed.] Baltimore: John Hopkins University Press.

Price, R. (1976). *The Guiana maroons: A historical and bibliographical introduction*. Baltimore/London: John Hopkins University Press.

Price, R. (1975). Kikoongo and Saramaccan: A reappraisal. *Bijdragen tot de Taal-, Land- en Volkenkunde, 131*, 461-478.

Rens, L. (1953). *The historical and social background of Surinam's Negro English*. Amsterdam, Netherlands: North-Holland.

Robertson, I. (1993). The Ijo element in Berbice Dutch and the pidginization/ creolization process. In S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 296-316). Athens: University of Georgia Press.

Rountree, C. S. (1992). *Saramaccann grammar sketch*. Paramaribo: Summer Institute of Linguistics.

Sag, I. (1976). A note on verb phrase deletion. *LI, 7*, 664-670.

Schneider, E. (1993). Africanisms in the grammar of Afro-American language varieties: Weighing the evidence. In S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 209-221). Athens: University of Georgia Press.

Schneider, E. (1989). *American Earlier Black English*. Tuscaloosa: University of Alabama Press.

Sebba, M. (1987). *The syntax of serial verbs: An investigation into serialization in Sranan and other languages*. Amsterdam: John Benjamins.

Sebba, M. (1986). Adjectives and copulas in Sranan Tongo. *JPCL, 1*, 109-121.

Sebba, M. (1982). Adjectives and comparatives in Sranan Tongo. *Amsterdam Creole Studies, 4*, 1-22.

Seuren, P. (1986). Adjectives as adjectives in Sranan: A reply to Sebba. *JPCL, 1*, 123-134.

Seuren, P. (1981). Tense and aspect in Sranan. *Linguistics, 19*, 1043-1076.

Shanks, L. (1994). *A buku fu okansi anga ingiisi wowtu*. Paramaribo: SIL.

Shopen, T. (Ed.) (1985). *Language typology and syntactic description*, Vol 1-3. Cambridge: Cambridge University Press.

Siegel, J. (1997). Mixing, leveling and pidgin/creole development. In A. Spears & D. Winford (Eds.), *The structure and status of pidgins and creoles* (pp. 111-149). Amsterdam: John Benjamins.

Siegel, J. (1998). Transfer constraints and substrate Influence in Melanesian Pidgin. To appear in JPCL

Singler, J. (1996). Theories of creole genesis, sociohistorical considerations, and the evaluation of evidence: The case of Haitian Creole and the relexification Hypothesis. *JPCL, 11*, 185-230.

Singler, J. (1995). The demographics of creole genesis in the Caribbean: A comparison of Martinique and Haiti. In J. Arends (Ed.), *The early states of creolization* (pp. 203-232). Amsterdam: John Benjamins.

Singler, J. (1993). African influences upon Afro-American language varieties: A consideration of socio-historical factors. In S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 235-254). Athens: University of Georgia Press.

Singler, J. (1992). Nativization and pidgin/creole genesis: A reply to Bickerton. *JPCL, 7*, 319-333.

Singler, J. (1990). On the use of sociohistorical criteria in the comparison of creoles. *Linguistics, 20*, 645-669.

Singler, J. (1988). The homogeneity of the substrate as a factor in pidgin/creole genesis. *Language, 64*, 27-51.

Singler, J. (1986). Short note. *JPCL, 1*, 141-147.

Smith, N. (1998a). Voodoo Chile: Differential substrate effects in Saramaccan and Haitian. (to appear in: In N. Smith & T. Veenstra (Eds.), *Creolization and language contact*. Amsterdam: John Benjamins)

Smith, N. (1998b). Pernambuco to Surinam 1654-1665? The Jewish slave controversy. (To appear in: M. Huber & M. Parkvall (Eds.), *Spreading the word: Papers on the issue of diffusion of Atlantic creoles*. London: University of Westminster Press.)

Smith, N. (1996). Focus-marking *we* in Saramaccan: Grammaticalization or substrate. In, P. Baker & A. Syea (Eds.), *Changing meanings, changing functions: Papers relating to grammaticalization in contact languages* (pp. 113-128). (Westminster Creolistics Series 2) London: University of Westminster Press.

Smith, N. (1987). *The genesis of the creole languages of Surinam*. Unpublished dissertation, Universiteit van Amsterdam.

Smith, N., Robertson, I. & K. Williamson (1987). The Ijo element in Berbice Dutch. *Language in Society, 16*, 49-90.

Stein, P. (1995). Early creole writing and its effects on the discovery of creole language structures: The case of Eighteenth-Century Negerhollands. In J. Arends (Ed.), *The early stages of creolization* (pp. 43-62). Amsterdam: John Benjamins.

Stipriaan, A. van. (1989). The Suriname rat race. Labour and technology on sugar plantations, 1750-1890. *Nieuwe West-Indische Gids, 65*, 94-117.

Stipriaan, A. van (1993). *Surinaams contrast, Roofbouw en overleven in een Caraibische plantagekolonie 1750-1863*. Leiden: KITLV.

Thomason, S. (1997). A typology of contact languages. In A. Spears & D. Winford (Eds.), *The structure and status of pidgins and creoles* (pp. 71-90). Amsterdam: John Benjamins.

Thomason, S. (1993). On identifying the sources of creole structures. In S. S. Mufwene (Ed.), *Africanisms in Afro-American language varieties* (pp. 280-295). Athens, GA: University of Georgia Press.

Thomason, S. (1992). Response to Bickerton. *JPCL, 7*, 106-10.

Thomason, S. & T. Kaufman (1988). *Language contact, creolization, and genetic linguistics*. Berkeley, CA: University of California Press.

Thompson, S. (1988). A discourse approach to the cross-linguistic category "adjective." In J. A. Hawkins (Ed.), *Explaining linguistic universals* (pp. 167-185). Oxford: Basil Blackwell.

Turner, L. (1949). *Africanisms in the Gullah dialect*. Ann Arbor: The University of Michigan Press.

Veenstra, T. (1996). *Serial verbs in Saramaccan. Predication and creole genesis*. The Hague: HIL.

Voorhoeve, J. (1957). The verbal system in Sranan. *Lingua, 6*, 374-396.

Voorhoeve, J. (1962). *Sranan syntax*. Amsterdam: North-Holland.

Voorhoeve, J. & U. Lichtveld (1975). Creole drum: An anthology of creole literature in Surinam. New Haven/London: Yale University Press.

Wekker, J. (1991). Surinaams plantagenwezen: Een kwestie van aantallen. *OSO, 10*, 71-85.

Westermann D. (1930). *A study of the Ewe language*. London: Oxford University Press.

Williams, W. (1976). *Linguistic change in the syntax and semantics of Sierra Leone Krio*. Unpublished dissertation, Indiana University.

Williams, W. (1971). Serial verb constructions in Krio. *Studies in African Linguistics, Supplement, 2*, 47-65.

Waite, J. (1983). Verbs, adjectives and predicate marking in Isle de France creole: Back to basics. *Te Reo, 26*, 59-64.

Weinreich, U. (1953). *Languages in contact*. The Hague: Mouton.Van der Linde, 1966

Winford, D. (1998a). Creoles in the context of contact linguistics. Presented at the annual meeting of the Society for Pidgin and Creole Linguistics, 1998. (To appear in G. Gilbert (Ed.), *Pidgin and creole linguistics in the 21st century*. Amsterdam: John Benjamins.)

Winford, D. (1998b). On the origins of African American Vernacular English - A creolist perspective. Part II: Linguistic features. *Diachronica, 15*, 99-154.

Winford, D. (1997a). Property items and predication in Sranan. *JPCL, 12*, 237-301.

Winford, D. (1997b). Column: Creole formation in the context of contact linguistics. *JPCL, 12*, 131-152.

Winford, D. (1997c). On the origins of African American Vernacular English - A creolist perspective. Part I: The sociohistorical background. *Diachronica, 14*, 305-344.

Winford, D. (1996a). Column: Common ground and creole TMA. *JPCL, 11*, 71-84.

Winford, D. (1996b). Column: Creole typology and relationships. *JPCL, 11*, 313-328.

Winford, D. (1993). *Predication in Caribbean English creoles*. Amsterdam: John Benjamins.

Winford, D. (1990a). Copula variability, accountability and the concept of polilectal grammars. *JPCL, 5*, 223-252.

Winford, D. (1990b). Serial verb constructions and motion events in Caribbean English creoles. In B. Joseph & A. Zwicky (Eds.), *When verbs collide: Papers from the 1990 Ohio State mini-conference on serial verbs* (pp. 109-148). Ohio State University Working Papers in Linguistics, 39. Columbus, OH: Ohio State University Press.

Wong, E. (1938). Hoofdenverkiezing, stamverdeeling en stamverspreiding der Boschnegers van Suriname in de 18e en 19e eeuw. *Bijdragen tot de Taal-, Land- en Volkenkunde, 97*, 295-363.

Woolford, E. (1983). The social context of creolization: Introduction. In E. Woolford & W. Washabaugh (Eds.), *The social context of creolization* (pp. 1-10) . Ann Arbor: Karoma.

Woolford, E. & W. Washabaugh (Eds.) (1983). *The social context of creolization.* Ann Arbor: Karoma.