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Population factors, multilingualism and the emergence of grammar

Enoch O. Aboh

John Singler's work on substrate influence in the emergence of Atlantic creoles has shown that population factors (i.e., the ethnic distribution of the African founder population) as well as typological (dis)similarities between the languages in contact are crucial for understanding how new language varieties develop. In light of this view, this chapter discusses population factors on the Slave Coast in the 17th and early 18th centuries in order to determine the ethnic distribution of the Africans deported to Suriname and Haiti. Building on newly established socio-historical facts, this chapter further investigates the development of adpositions in Sranan: a case study of the emergence of grammar in multi-ethnic context.

Keywords: population factors, slave coast, adposition, hybrid structures

1. Introduction

A recurrent question in the study of language is how to account for change in a way that enhances our understanding of universal principles underlying the human language capacity. The study of change not only bears on issues of variation across (generations of) speakers of the same language variety but also on variation across typological groupings. There have been various answers to this question in the literature. Oversimplifying for the purpose of the current discussion, the traditional generative view assumes that language change starts in the course of acquisition, often as a consequence of language contact involving early or late L2 acquisition (e.g., Kroch & Taylor 1997; Kroch 2001; Lightfoot 2006; Meisel 2011; Weerman 2011). Such studies, however, do not typically focus on creole languages. The common belief seems to be that these languages emerged in exceptional contexts and might not inform us on general processes of acquisition and change.

Quite the contrary, this chapter argues that creoles in general represent one propitious empirical domain for studying language change, as related to first and

second language acquisition, and the emergence of new communal varieties. Creole languages generally develop in situations of intensive language contact involving a significant population of early, late, as well as adult L2 learners (e.g., the contact between enslaved Africans who were speakers of Niger-Congo languages and European colonists, speakers of Romance or Germanic languages who settled in the Caribbean). My working assumption is that language learners are typically exposed to a heterogeneous input often generated by multilingual speakers of different levels that master various registers of the same language, varieties thereof or different languages in contact in the community. In such multilingual contexts, comparable to creole societies, language acquisition, i.e., the development of an I-language in the mind/brain of the speaker, systematically results in the recombination, as part of a stable grammar, of varying syntactic features that the learner is exposed to via the communal language (or E-language, Chomsky 1981), see Aboh (2015) for discussion.¹ The basic idea is that learners are capable of weaving together (in a coherent system representing their I-language) abstract properties of different languages/varieties present in the input. This is, for instance, the case in contact situations resulting in code-switching varieties or mixed languages, where one can observe the ability of speakers to process “cues” (pieces of E-language in Lightfoot’s terminology) that express competing linguistic features, yielding a coherent rule-governed system. This chapter claims that the same basic cognitive principles that are available to L2 speakers in such a context also form part of the ‘toolbox’ of the L1 learner. This means that children are, in effect, capable of recombining into a stable grammatical system the properties of the mutually distinct varieties they are exposed to. But due to their age, which correlates with brain plasticity and presumably a full access to a rule-based learning process, children seem to also be capable of making broad generalizations based on the input that further enhance the emergent grammar. According to Blom, Polišenská and Weerman (2008) and Weerman (2011), this possibility seems less available to adult learners: a point that may explain the significant differences one generally observes between L1 versus L2 acquisition (see also Paradis 2004).

In this discussion, acquisition is understood as the development from an initial state to a steady state: the emergence of an I-language which converges toward communal norms, but does show subtle divergences from other speakers. In this

1. The point here is that learners are not directly exposed to syntactic features because these are part of I-languages which are intensional (or internal to speakers). Instead, the working hypothesis here is that learners access syntactic features via pieces of expressions of I-languages which in turn contain ‘cues’ about syntactic features and their licensing properties. I thank Michel DeGraff for his suggestions on this issue.

regard, I use the term *idiolect* to mean the expression of such an I-language (i.e., its extension, Chomsky 1995: 14–17). Since every idiolect (and by implication every I-language) is distinct to some extent, diachronic change involves the selection of some features from certain diverging idiolects in the community, the cumulative effect of which eventually leads to change in communal norms and the emergence of a new communal variety. Accordingly, diachronic change (and language evolution) is comparable to evolution of change at the population level because it involves the diffusion inside the community of a change that occurred during an individual process of acquisition (see Yang 2009 for plausible modelling).

In terms of this view, creole languages offer very useful empirical grounds for studying change, acquisition and language evolution. First, creole languages of the Caribbean, for instance, developed recently (within about four centuries) and might have preserved some original ‘ingredients’ of their birth. Second, these languages show fascinating contrasts as compared with their ancestors, having resulted from extensive contact between typologically different languages (e.g., Romance/Germanic versus Niger-Congo). Third, being young and displaying such contrasts, creoles represent an empirical domain where we can hope to reconstruct the ingredients of change, that is, how new I-languages emerge with novel features that can spread within a speech community.

Thus, with creoles we hold a chance to uncover phenomena which may be harder to observe with older languages. With regard to syntax, for instance, this means that focusing on specific aspects of the clause structure we can identify distinctive features contributed by the source languages and reconstruct how these evolve into new variants (i.e., idiolects). The following sections illustrate this view based on data on adpositions in the Suriname creoles.

Smith (1987, 2009), Singler (1996) and much related work on population factors in the Caribbean present us with valuable information about the communities of enslaved Africans in the New World and how population factors can inform studies of substrate influence. For instance, these authors have shown that the Gbe languages were instrumental in the formation of the Suriname creoles and Haitian Creole. As a complement to these studies, Section 2 presents the case of the Kingdom of Allada, in present day Benin, and shows that population, socio-economic, and geo-political factors on the Slave Coast conspired to make Gbe communities the primary target of slavery during the 17th and early 18th century. Consequently, massive numbers of Gbe speakers were deported to the New World in a short period of time. Because these Gbe speakers arrived on the colonies in such compact groups, they seemed to have exerted a certain pressure on the emerging creole society and its language.

Building on these findings, Section 3 motivates the account put forth in Aboh (2009, 2015) with regard to the emergence of grammar and how it relates to creole

formation. Section 4 develops the theoretical aspects of the proposed analysis and provides the reader with supporting empirical facts on adpositions in Suriname creoles. Section 5 concludes the paper.

2. Slavery on the Slave Coast: The Kingdom of Allada

There is a wealth of literature on the contribution of Gbe-speaking people in the emergence of the creole societies of Suriname and Haiti (cf. Smith 1987, 2009; Arends 1989, 2009; Singler 1996 and references cited there). Most studies focus on historical record from the colonies as well as linguistic facts to determine the contribution of the Gbe communities to the emergent creole societies. This section, which summarizes the findings in Aboh (2015: Chapter 2), furthers our knowledge of population factors in the Caribbean with data on geopolitics, and socio-economic factors related to the Kingdom of Allada (in present-day Benin), one of the most powerful Kingdoms on the Slave Coast from the 16th to 18th century during the triangular trade.² For instance, Law (1994: 59) remarks that:

This section of the West African coast east of the River Volta, comprising the western half of the Bight of Benin, was so prominent in the supply of slaves for the Atlantic trade that it became known to Europeans as the ‘Slave Coast’. The most powerful state (and principal supplier of slaves for the Atlantic trade) in the region during the sixteenth and seventeenth centuries was the Kingdom of Allada.

Pazzi (1979) situates the foundation of this Kingdom, between the late 14th century and the 15th century, that is, almost a century before it came to be known to Europeans in the 16th century.³ While the exact size of Allada is not known, one can infer its power from its infrastructures (e.g., the number of ports under its control) its military capacity and the number of slaves sold out of its ports. Indeed some reports in the 17th century suggest that Allada once controlled the major ports on the Slave Coast where the Europeans were trading and sometimes settled: Apa/Badagri, Jakin, Offra, Glehue/Whydah, and Xwlagan/Great Popo (cf. Aboh 2015). Similarly, Law (1997: 20) indicates that the size of Allada’s army amounted to 40,000–50,000 (see also d’Elbée 1671: 381).

2. The Slave Coast includes present-day Western Nigeria, Bénin, Togo, and Ghana.

3. In a letter written in Beni (present-day Nigeria) on August 30, 1539, three Portuguese missionaries describe the King of Beni in the following terms: “his way of mistreating and arresting all the ambassadors of the kings who sent him messages, as he just did with those of *Labadi* and Allada and many others” (my translation).

The capital of this Kingdom, also referred to as “(Great) Allada” was about 40 km to 60km inland and was well-known to Europeans who found it impressive both in terms of its architecture and the trading possibilities it offered.⁴ The population of the city was estimated to about 30,000. According to Olfert Dapper, a Dutch geographer, who visited Allada in the mid-seventeenth century,

[it] is a country full of villages and well situated for trade because one finds there all year long and in great abundance, millet, palm wine, fruits and vegetables such as yams, potatoes, oranges, limes, coconuts, etc. It is a country of plains and beautiful valleys including great rivers and the roads that lead there are well maintained. People there produce a lot of salt. (Adande 1984: 239, my translation)

Captain François d’Elbée, the representative of the French *Compagnie des Indes Occidentales*, visited the city in 1670. He was put in the royal palace which he described as:

very large and well-constructed. It is divided into large courts and large gardens. The building is all surrounded by porches which form several galleries that lead to the various courts or gardens. It is a two-storey house composed of big halls and rooms including various pieces of furniture. (1671: 418)

The architecture of the royal palace is indicative not only of the wealth of the Kingdom but also of its socio-cultural aspects prior to European colonization. During the 16th and 17th centuries, Allada was part of an international trade network which required the King to have political and commercial alliances with other Kings in the sub-region and overseas. During the 17th century, the successive Kings of Allada sent two ambassadors to Europe: one to the King of Spain Philippe IV in 1658, and the other to the King of France Louis XIV in 1670.

As one of the most powerful kingdoms in West Africa in the 16th and 17th centuries, Allada relied on a strong economy based on local goods (e.g., fruits, millet, vegetables, palm oil, ivory, gold, cotton, etc.) that were traded in the kingdom and the sub-region but were also exported. In 1574, G. M. Branco, a Portuguese merchant from São Tomé, wrote in a letter (cited in Pazzi (1979: 154) that:

with our friend the King of Allada, who is close to Mina [i.e., El Mina in present-day Ghana] we trade for slaves, ivory, cotton cloth, palm oil, and many vegetables such as yam and other foods. Each year we import from that port one or two ships loaded of what is mentioned above. (my translation)

4. Allada is about 60 km inland from Cotonou (where the present day trade port is located) but it is only about 40km inland from Ouidah/Whydah, a then satellite of the Kingdom, also functioning as slave port (cf. Aboh 2015 for discussion).

We see here that another source of income in Allada was slavery. Various historical sources (e.g., Law 1991, 1994, 1997, Eltis 2011) show that this Kingdom was one of the main suppliers of slaves in the Atlantic trade during the 17th and early 18th centuries. As indicated by the Portuguese merchant G. M. Branco, the King of Allada was already trading slaves back in 1574. The Portuguese monopoly on the trade with Allada continued until 1635. Law (1994: 65) evaluates the number of slaves from Allada in this period at about 667 slaves a year out of a total number of 1,167 slaves from the Slave Coast as a whole. That is, more than half of the slaves embarked on the Slave Coast were purchased in Allada. These relatively modest numbers would grow dramatically in the decades to follow, when the Dutch took over the trade. Some historical documents indicate that the Dutch authorities from Brazil “envisaged imports of 1,500–1,600 slaves annually from Allada, and a further 500–600 from Popo”, a subordinated chieftaincy of Allada (Law 1994: 66). Accordingly, the Dutch factors hoped to buy around 2,000 or 2,200 slaves off Allada.

The competition between the European companies that traded with Allada (i.e., the Portuguese, the Dutch, the Spanish, the French, the English, and the Danish) led to a dramatic increase in the number of slaves exported from this Kingdom in the years to follow (Law 1994, 1997; Emmer 2005; Eltis 2011).⁵ For instance, Law (1997: 102) evaluates the overall slave export from Allada in the 1710s at about 15,000 a year. Eltis (2011: 275) gives even higher figures suggesting that the trade in Allada and its subordinated ports (e.g., Whydah, Jakin) rose from about “1000 a year in the 1650s to 8,000 in the 1680s, to a peak over 19,000 a year in the 1720s.” These figures are compatible with Eltis’ (2011: 272) estimate of the increase of the total volume of captives exported from Africa to the Americas in 1766–1776 from about 12,000 to 80,000 a year.

These overwhelming figures give us an idea of the yearly gross income of Allada which appears to vary between £225,000 and £285,000, that is, between 720 and 912 million cowries, the local currency (cf. Law 1997; Eltis 2011; Aboh 2015). We can infer from the magnitude of these figures that human trafficking on the Slave Coast produced an immense income that presumably benefited local elites in Allada and subordinate states.

Given its revenues, there was intense rivalry between Allada and the subordinate chieftaincies of the Kingdom, including *Dànxòmè* and Whydah, and neighbouring Kingdoms such as Beni. This led to a period of wars and instability that would continue until Allada was eventually conquered by the Fon of *Dànxòmè* on March 30th 1724 (Pazzi 1979; Adande 1984; Law 1997: 114). This critical period

5. See Aboh (2015: Chapter 2) for discussion.

must have affected the slave trade generally, sometimes increasing the number of captives. For instance, Bulfinch Lamb, an English factor captured during the conquest of Allada, reports that “there were more than eight thousand enslaved prisoners of war” (Pazzi 1979: 246). There is little doubt that these prisoners were sold to European factors trading on the coast.

These facts would lead us to hypothesize that a significant portion of the enslaved people sold on the Slave Coast came from the interior of the Kingdom which organized and controlled the trade (cf. Aboh 2015: Chapter 2). In this regard, Law (1994: 83) asserts that “in general, the evidence suggests that the principal source of slaves for export was capture in warfare [...] the greatest part of the slaves sold in Allada came from Dahomey.” We don’t know whether Dànxòmè, which was subordinated to Allada until 1724, directly supplied the slaves to the coast or simply perceived taxes on slave caravans that crossed its lands. Nevertheless, the geopolitics of the time conditioned by the Fon expansion suggests that many of the slave cohorts must have come from the interior of Allada, Dànxòmè, and their subordinated chieftaincies, as a result of warfare. In the 1690s, William Bosman, cited in Law (1997: 104) reports that “most of the slaves that are offered to us are prisoners of war, which are sold by the victors as their booty.” Likewise, Law (1997: 104–105) mentions a document dating from the 1720s indicating that:

The slaves exported through Whydah were captured in wars close to the coast, alleging that, if the king of Whydah could not get enough slaves by ‘fair agreements with his country neighbours’, he marches an army, and depopulates, and observing He and the King of Ardra adjoining, commit great depredations inland.

With regard to the ethnicity of the captives sold in Allada, the geopolitics of this Kingdom suggests that a significant part of the slaves sold through its ports were of Aja origin and therefore spoke a Gbe language. Aboh (2015) presents a detailed discussion showing that the structure of the trade as imposed by the King of Allada and subordinated chieftaincies indirectly contributed to restrict the slave supply to a “local reservoir” (i.e., mainly people of Aja descent). The Kingdom of Allada monitored both the trade on the coast and the supply of slaves. This further suggests that slave traders, Africans and Europeans alike, could not afford to fetch their slaves beyond the limits of the Kingdom. Indeed, the Kingdom of Allada is sandwiched between the kingdoms of Oyo and its slave ports to the East and Ìṣṣe to the West. Both kingdoms competed with Allada in the regional economy and the Allada King would have presumably levied heavy taxes on slave import from these lands. North of Allada was the competitor and later conqueror Kingdom of Dànxòmè. Beyond Dànxòmè there were various Muslim kingdoms, which were less favourable to slave trade (Law 2011). Given this geo-political situation, organizing slave caravans without a “license” from outside the limits set by the Kingdom

was presumably too risky and costly for such an illegal enterprise to be lucrative. I therefore submit that a significant portion of the people sold in Allada were of Aja descent. In addition to warfare and political instability in the interior, economic factors (e.g., the cost of a slave) contributed to making unfortunate locals the prime targets and victims of the trade. Indeed, Eltis (2011: 276) referring to the ethnicity of captives leaving the Slave Coast claims that “the majority of slaves before 1725 would have been Gbe speakers.” He further suggests that the slaves embarked in Allada, after this period, were probably “a mix of Gbe-speaking and Yoruba people” (ibid.). Consequently, large numbers of Gbe-speaking people sold in Allada during the 17th and 18th centuries must have been shipped together to the Americas where they might have ended up in the same colonies or even on the same plantations.

Because Gbe-speaking people were not always numerically dominant throughout the colonization of the Caribbean (Smith 1987, 2009; Singler 1996), a question that often arises in creolistics is why these speakers would have been more instrumental in the emergence of the creole society and language than the Bantu people who were also present in similar numbers at about the same time. As discussed in Aboh (2015), one also needs to take into account the structure of the trade on the Slave Coast and the geo-political situation in that area during the 17th and 18th centuries in order to answer this question. Aboh’s (2015) study of available historical documents indicates that the enslaved Gbe-speaking people came in more compact groups and during a short period of time (i.e., from the mid-17th to the mid-18th centuries). This is apparently different from the enslaved Bantu people coming from West Central Africa and speaking many more different languages. Contrary to Allada, the Portuguese slave traders controlled the slave routes in West Central Africa and could fetch slaves inland up to 700 miles from the coast (Eltis 2011: 280). Aboh (2015) suggests that these long distances may have generated relative ethnolinguistic diversity: the Bantu slaves came in large numbers but in fragmented ethnic groups. Such a diversity coupled with different periods of arrival may deeply impact the ecology of the founder population thus affecting the dynamics of contact that led to the emergence of creoles. Following Mufwene (1996, 2001), Singler (1996), Smith (2009) and Aboh (2015), I conclude that differences in time of arrival and in critical masses at the time of the emergence of creoles represent significant factors in the competition and selection process that led to the emergence of the creole societies. This could be the reason why in Haiti and Suriname, the Gbe-people had a profound impact on the emergent cultures and languages of these colonies.

This conclusion is compatible with Singler's (1996:216) conclusion that:⁶

It is thus the fact that speakers of Gbe dialects were in place at 'the right time' that leads to the hypothesis that they, rather than speakers of Bantu languages, were the single most important group of African language speakers in the creation of Haitian Creole, this even though the total number of speakers of Bantu languages over the entire period of slave importation into Haiti is probably more than double the number of speakers of Gbe dialects.

This quote further points to the fact that these creole societies emerged in a multilingual context involving Gbe, Bantu, and presumably other West African languages in contact with Romance and/or Germanic languages. Indeed, Singler (1996:211) reminds us that

while the preponderance of those exported from the Bight of Benin continued to come from Gbe-speaking ethnic groups, particularly in the first three decades of the century, in the 1730s there were growing numbers of non-Gbe-speakers among the Bight of Benin captives. Still, it was not until the second half of the 18th century that large numbers of Yoruba speakers and people from the interior were exported through the ports of this region.

Given this multilingual context and the structure of the plantation population, it is reasonable to assume that the enslaved Africans being used to multilingualism in Africa prior to slavery presumably tried to learn each other's languages in addition to the language of their masters. This would mean that creoles emerge from the same general principles that guide language acquisition and change as instantiated in multilingual contexts. In a sense, creoles allow us to understand principles that underlie the emergence of linguistic competence in a multi-language context.

3. Creole languages and language change

The view that creoles emerge from the same general principles underlying language acquisition and change contradicts various analyses of creole genesis which regard these languages as exceptional linguistic systems resulting from a break in transmission, and acquisition failure. Indeed, Section 2 on geopolitics in Kingdom of Allada, and how it resulted in making Gbe-speaking people the main victims of human trafficking on the Slave Coast in the 17th and early 18th centuries, shows that significant numbers of enslaved Gbe people must have ended up on the same plantations

6. See Smith (1987) and Arends (1989) for Suriname.

in Suriname and Haiti during the formation of the creole. It is unlikely that such compact groups of Gbe multilinguals would need a pidgin to communicate. The common claim that enslaved Africans would use such a pidgin to communicate with their children also appears highly dubious. Therefore, the pidgin-to-creole scenario advocated by Bickerton (1981, 1984, 1988, 1990, 2008), McWhorter (1998, 2001), and much related work cannot be maintained on historical ground.

On the linguistic level, the pidgin-to-creole scenario states that the structural make-up of creoles is predetermined by a prior pidgin phase. In terms of Bickerton, pidginization results in the loss of grammatical items, some of which (e.g., prepositions) cannot be reconstituted during the creolization phase. Other grammatical items however (e.g., TMA markers, articles) are required by human communication and must be reconstructed by children based on the language bioprogram.

As mentioned in previous paragraphs, Bickerton's catastrophic pidgin-to-creole scenario cannot be maintained on the basis of historical facts and population factors. His theory has also been shown to be inadequate on both conceptual and empirical counts (e.g., Muysken 1988; DeGraff 1999; Mufwene 1999; Aboh 2015, among others). The following data illustrate some empirical and theoretical flaws. Table 1 lists adpositions in 18th century Sranan. This creole developed in Suriname from the contact between English colonists and enslaved Africans including a significant portion of Gbe and Kikongo speakers, as mentioned in Section 2 above (see also Arends 1989; Smith 1987).

Table 1. Adpositions in early Sranan (1707–1798), adapted from van den Berg (2007: 153)

Preposition	Meaning	Prepositions	Meaning
Bifo	Before	(Na) agter	At the back, After
Bilo	Below	(Na) baka	At the back, after, behind
Fossi	Before	(Na) abra	Over, across
Fu	From, of, for, about	(Na) fesi	Over, across
Leki	Like	(Na) ini	(In)side
Sondro	Without	(Na) tapu	Upper side, On
Na	To, at, on	(Na) midri	In the middle
Te	Until	(Na) sey	Beside
		(Na) ondro	Under(side)

Contrary to what one might expect following the pidgin-to-creole hypothesis in which adpositions are lost forever because unrecoverable from a pidgin, it appears that English prepositions never got lost during the development of Sranan. Early Sranan retained almost all English adpositions including most complex ones. Since speakers of early Sranan could not have recreated such a rich set of prepositions out of a pidgin, we are led to conclude that the pidgin-to-creole scenario cannot

account for these facts (cf. Aboh 2014, 2015). Likewise, these examples indirectly undermine the view that a pidgin preceded every creole (cf. Bakker 2014). No known pidgin exhibits a wide range of locative expressions that could generate such a rich set of adpositions. The same sociohistorical facts discussed in Section 2, and further empirical and conceptual inadequacies led Aboh (2015) to conclude that alternative theories such as Lefebvre's (1998) relexification hypothesis or Plag's (2008) interlanguage hypothesis must also be rejected.

Indeed, close scrutiny of Early Sranan series of English-derived adpositions reveals that English complex adpositions (e.g., inside, beside) are systematically reanalyzed into Sranan as two separate grammatical items: *na-X_{NP}*, where a copula or relator attaches to a nominal-like element.⁷ As I argued in Aboh (2010), such complex adpositions minimally realize two distinct syntactic positions in the structural make-up of locative expressions. Accordingly, we can hypothesize that the creators of the Sranan forms had access to formal properties of the English complex forms about which they entertained structural hypotheses that led to the emergence of the *na+X_{NP}* pattern shown in Table 1. These forms cannot be the creations of UG-driven children faced with the macaronic input alleged by advocates of the pidgin-to-creole cycle, nor can they be the outputs of relexification or a conventionalized interlanguage.

I show below that the creation of these forms resulted from a learning process that, in effect, involved the recombination of syntactic features of different languages into a viable system in the speaker's developing I-language. In terms of this view (further elaborated in Aboh 2015), recombination of syntactic features happens at the level of individual speakers acting on Primary Linguistic Data which, in turn, express the linguistic features of a variety of (often) mutually distinct idiolects. This would mean that issues of language change must be studied at two levels: (i) the individual level (related to I-language) and (ii) the population level (related to E-language) (DeGraff 1999, 2009).

In Aboh (2009, 2015), I suggest that focusing on the I-level, we can argue that language change is akin to genetic recombination in the sense that linguistic features are recombined into a new stable system. Recombination of linguistic features happens during a process of competition and selection that arises during contact (Mufwene 2001, 2008). With this in mind, let us first step back and consider adpositions in Early Sranan. Throughout the discussion, I refer to the adpositions as P_1 and P_2 as already discussed in (Aboh 2010).

Early Sranan involves three patterns:

7. The same reanalysis apparently applied to before 'bifo/fossi' and below 'bilo' as well.

- (1) Pattern 1: P_1 and P_2 , circumvent the noun phrase (DP) expressing the Ground (Talmy 2000). The resulting order is: $P_1 > \text{GROUND-DP} > P_2$.⁸

(Sranan, Bruyn 2003: 32)

Sinsi a kómm na hosso inni...
 since 3SG come P_1 house P_2
 'Since she entered the house...'

Pattern 2: P_1 and P_2 precede the Ground DP in a fixed order: $P_1 > P_2 > \text{GROUND-DP}$.

(Sranan, Bruyn 2003: 35)

Mi kómmotto na inni djari
 1SG come.out P_1 P_2 garden
 'I'm coming from the garden.'

Pattern 3: involves pattern 2 plus a genitive marker in the order:

$P_1 > P_2 > \text{GEN} > \text{GROUND-DP}$.

(Sranan, Bruyn 2003: 32)

A trueh watra na inni vo wan tobbo
 3SG throw water P_1 P_2 of DET tube
 'He threw water into a tube.'

These patterns are found across the Suriname creoles and cannot be assumed to result from a general process of pidginization. Furthermore, Ndyuka developed a fourth pattern in which the adposition *ini* is doubled as represented below.

Pattern 4: involves pattern 2 with doubling of the adposition *ini*:

$P_1 > P_{2ini} > \text{GROUND-DP} > P_{2ini}$

(Huttar & Huttar 1994: 189)

Da i e kandi en baka poti a ini sani ini
 CONJ 2SG PROG tip 3SG again put P_1 P_2 thing P_2
 'Then you tip it again and pour it into something.'

Summarizing, therefore, the Suriname creoles exhibit the four patterns repeated in (2):

- (2) Pattern 1: $P_1 > \text{GROUND-DP} > P_2$
 Pattern 2: $P_1 > P_2 > \text{GROUND-DP}$
 Pattern 3: $P_1 > P_2 > \text{GENITIVE} > \text{GROUND-DP}$
 Pattern 4: $P_1 > P_2 > \text{GROUND-DP} > P_2$

While early Sranan displays patterns 1, 2, and 3, these are generally found in the typologically different languages from which it developed (i.e., Kwa, Germanic). Pattern 1, occurs in Gbe languages, as shown by the Gungbe Example (3).

8. These examples are written as they appear in the sources representing Early Sranan.

- (3) Kójó zé gò dǒ [DP àkpótín] mɛ.
 Kojo take bottle P_{1[AT]} box P_{2[INNER]}
 'Kojo put the bottle inside the box.'

Though not common in Gbe, pattern 2 is found in Degema, an Edoid language spoken in Nigeria.

- (4) Mi-ḥúká-n úbí yǒ mú ívóm úvay.
 1SG-keep-ASP book DET P₁ P₂ house
 'I kept the book in the house.'

Note, however, that this pattern is a sub-case of pattern 3 which is more complex and occurs in the Gbe languages and in English. This is shown by the Gungbe Example (5a) and its English equivalent in (5b).

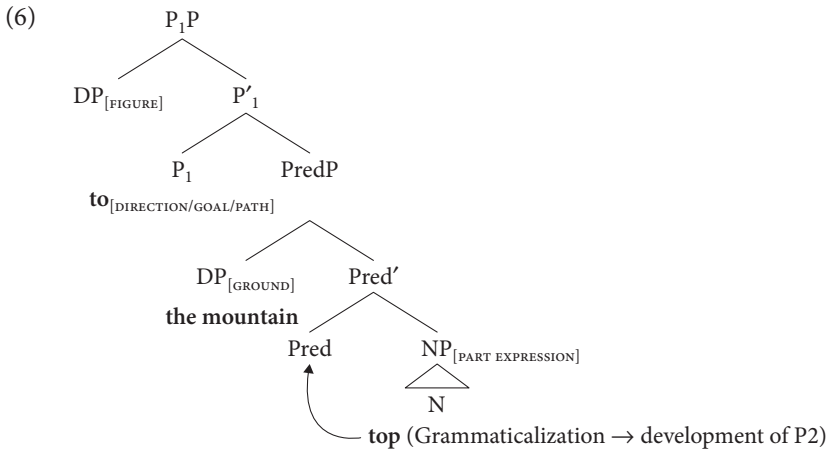
- (5) a. Ûn mǒn Àdámù tò nùkón ná [DP àtín ló] Gungbe
 1SG saw Adam P₁ P_{2[FRONT]} for tree DET
 b. I saw Adam **in front of** the tree. English

To the best of my knowledge, the source languages of Suriname creoles do not involve the Ndyuka strategy exhibited in pattern 4. Given the cross-linguistic distribution of these patterns, we cannot postulate substrate influence (or relexification) as the unique factor in the emergence of adpositions in the Suriname creoles: The Gbe languages exhibit pattern 1 productively, while pattern 3 is restricted to some locative constructions only. While it could be argued that pattern 3 subsumes pattern 2, the Gbe languages lack pattern 4 also found in some Suriname creoles. Therefore, the creoles exhibit more patterns than we find in the relevant substrate languages. These same facts preclude an analysis in terms of superstrate influence: the creoles exhibit various patterns (e.g., 1 and 4) not found in English. Finally, we cannot resort to Bickerton's language bioprogram since the patterns described in (2) are not evenly represented in the Suriname creoles or in creole languages in general: each creole exhibits only a subset of these patterns. Locative expressions in the Suriname creoles are therefore inconsistent with traditional theories of creole formation.

However, given the sociohistorical facts discussed in Section 2 and the examples described in (3) to (5) we know that the patterns found in early Sranan and other Suriname creoles constituted part of the inputs produced by the source languages (Gbe, English) to which the creole creators were exposed. Accordingly, these facts are compatible with Aboh's (2009, 2015) analysis in terms of recombination of syntactic features whereby the new grammar includes various patterns selected

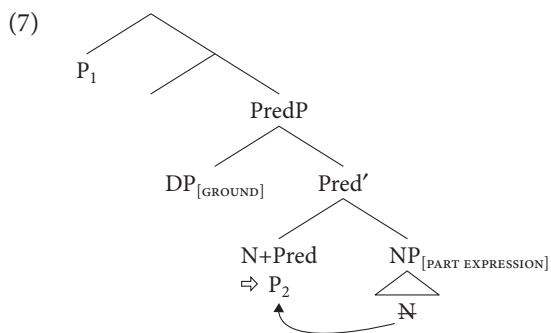
from the source languages. Such recombination may lead to further innovations as illustrated by adposition doubling in Ndyuka (pattern 4).

To see this, let us first consider the structural make-up of the patterns in (2). According to Aboh (2010), the orders in patterns (1, 2, 3) derive from an underlying (possessive) predicate structure. Under this view, English locative expressions such as “going to [the mountain-top]” involve a structure comparable to the sequence [mountain’s top] as represented in (6).

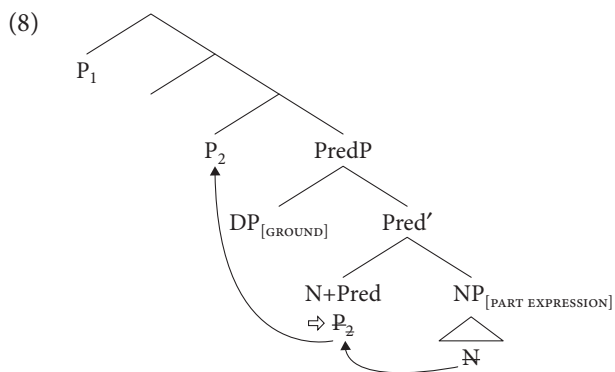


In this representation, P_1 , encoded by *to*, generally derives from verbs, copulas or relators as expression of DIRECTION, PATH or GOAL (see Aboh 2010 for discussion). It introduces the FIGURE DP being located in space. P_1 selects a predicate structure (PredP) headed by Pred, which in some languages is realized by a genitive marker that relates the GROUND DP ‘*mountain*’ to its PART EXPRESSION, here *top*, labelled P_2 . Note that the GROUND DP represents the subject of predicate while its associated part phrase represents the complement of Pred. Because such part phrases generally develop from body-part or landmark nouns (e.g., *top* in *mountain-top*), I hypothesize that such noun phrases first merge as bare NPs (Aboh & DeGraff 2014). This creates a favourable context for incorporation, where the head noun N raises to Pred. I further propose that incorporation as understood here can be seen as the first step of a grammaticalization process that may result in elements of the type P_2 (Aboh 2010). Note that in some languages, incorporation of N into Pred, may lead to subsequent movement of P_2 past the position containing the GROUND DP. This would mean that P_1 and P_2 arguably occur in all languages though their distribution and their morphology (e.g., the fusion of the two forms in some languages) may create surface cross-linguistic variation. This cross-linguistic variation can be schematized as follows.

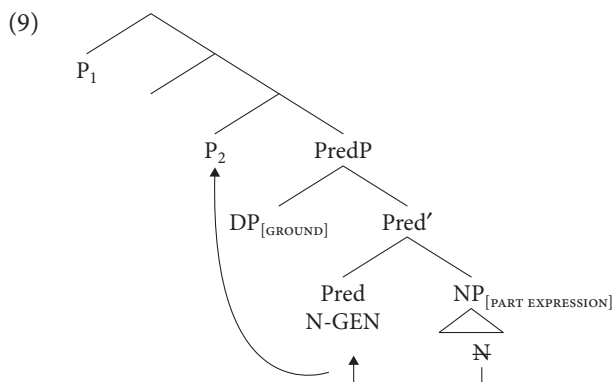
(7) represents pattern 1, illustrated by Sranan and Gungbe. In these structures I ignore the FIGURE DP.



Structure (8) represents pattern 2.



In the structures (7) and (8) Pred is lexicalized by incorporation of N into Pred. However, I show in Aboh (2010) that there are cases in which Pred can be lexicalized by a genitive marker prior to incorporation. In such cases, the incorporating noun cliticizes to the genitive marker in Pred forming a complex sequence N-GEN. This situation is schematized in (9). This structure represents pattern 3.



Summarizing, this analysis suggests that English morphologically complex adpositions that are reanalyzed as *na*-X_{NP} in Sranan are phrases in which P₁ selects a possessive predicate which embeds the GROUND phrase and its part P₂. This is shown by the following representations, where the adposition *na* merges under P₁, while the part noun (*inni*) first merges as a bare NP but subsequently incorporates in Pred and raises past the GROUND phrase.

(10) a. **Pattern 1**

[_{P1P} [_{P1} na [_{PredP} [_{DP} hossa] [_{Pred} inni [_{P2P} [_{NP} **inni**]]]]]]]

b. **Pattern 2**

[_{P1P} [_{P1} na [_{FP}[_F inni [_{PredP} [_{DP} djari] [_{Pred} **inni** [_{P2P} [_{NP} **inni**]]]]]]]]]

c. **Pattern 3**

[_{P1P} [_{P1} na [_{FP}[_F inni-vo [_{PredP} [_{DP} wan tobbo] [_{Pred} **vo-inni** [_{P2P} [_{NP} **inni**]]]]]]]]]]]

In representation (10a) the part noun *inni* incorporates into Pred. In (10b) the part noun incorporated in Pred, raises further thus landing in a position left to the GROUND DP *djari*. In (10c), Pred is lexicalized by the genitive marker *vo* prior to incorporation of the part noun. Then the complex form *inni-vo* moves to the left of the GROUND DP *wan tobbo*.

Early Sranan provides us with strong empirical evidence that the three patterns described in (7), (8), and (9) are related since all three may compete in one and the same language for the expression of location. The next question to answer now is why early Sranan involves these three patterns generally found across unrelated languages (e.g., Germanic, Romance, Edoid, Kwa).

4. The recombination of syntactic features: The *na-inni* code

In terms of Aboh (2009, 2015), Sranan developed these strategies as a result of the competition between different syntactic patterns (i.e., 1, 2, 3) provided by the languages in contact in colonial Suriname of the 17th and early 18th century. Patterns 1 and 3 are provided by Gbe languages (e.g., Gungbe, Fongbe or Ewɛgbe), while English provides pattern 3, which itself subsumes pattern 2. This leads me to conclude that early Sranan recombines two typological options made available by the contact situation between Gbe and Germanic.⁹ Early Sranan spatial expressions

9. It is important to realize that the resulting outcome is not a simple mix of two or more distinct syntactic properties. Instead, the creole develops a coherent system that embeds licensing properties made available by UG.

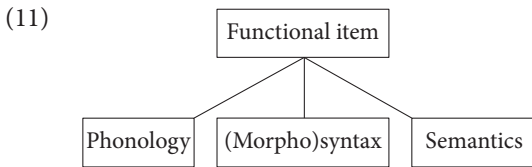
therefore display hybrid syntactic structures (Mufwene 2008; Aboh 2009, 2015).¹⁰ The following paragraphs discuss how such hybrid structures come about.

I argue in Aboh (2009, 2015) that linguistic features anchored in functional projections are comparable to genes in biology. The analogy suggests that creole languages, far from being simplified L2 versions of their source languages (e.g., English or Gbe in the case at hand), represent a hybrid system that happens to involve features selected from contrastive (or typologically different) parent languages. Put this way, one could think that the process of recombination of syntactic features or hybridization that led to the emergence of creole languages is exceptional. On the contrary, I argue that the recombination of syntactic features as described here is a fundamental aspect of language acquisition because it allows learners (L1 and L2 alike) to develop a stable grammar out of a diverse (and sometimes inconsistent) input. In L1 acquisition, the input is made of closely related variants and their recombination seems to produce a homogeneous grammar shared by the community. In L2 acquisition or in L2-L1 cascade situations, such as in the case of creoles or language change (DeGraff 1999, 2002, Meisel 2011; Aboh & DeGraff 2014), the input consists of typologically and genetically unrelated languages. Thus, the range of variation between the different variants is wider and their recombination may lead to a grammar that is relatively distant from the grammars that produced the inputs of the learner. At this stage of the discussion, it is important to stress that even though recombination targets a subset of the features that constitute the Primary Linguistic Data, this need not mean that learners cannot recombine these features in a way that produces outputs absent from the inputs and that would represent internal innovations. Pattern 4, found in Ndyuka, illustrates such cases, further showing that recombination does not limit speakers' or learners' creativity. Consistent with studies on bilingual acquisition, Aboh (2015) further shows that creole speakers/learners were multilinguals who acquired/developed the so-called creole language alongside African, European, and sometimes Amerindian languages that were part of the colonial society (cf. Kouwenberg this volume).¹¹

10. The term 'hybrid' has been used in various social constructs with a pejorative meaning. The term is used here in a strictly neutral sense to refer to a stable linguistic system that emerges from the contact of (typologically) different linguistic varieties. As I suggest in the conclusion natural languages involve hybrid systems as a rule because every I-language derives from a combination of features that are expressed in the PLD, the latter being fed by expressions of mutually distinct I-languages. In this regard, linguistic hybridization as argued for here and in Aboh (2015) is fundamentally different from Whinom's (1971) views on hybridization and how it could apply to pidgins, creoles and languages in general.

11. The proposed analysis in terms of recombination of syntactic features raises a number of theoretical questions that are discussed in detail in Aboh (2006, 2009, 2015) to which I refer the reader. As pointed out by a reviewer, one such question relates to the limits on recombination:

In this framework, the relevant syntactic features are properties of functional items which represent the units of change active in syntactic recombination. Following the generative tradition, a functional item is assumed to minimally involve a triplet including (i) phonological properties, (ii) morphosyntactic properties, and (iii) semantic properties, (11).



Because functional items are anchored in functional projections with their associated parametric values, the description in (11) is compatible with the traditional observation in generative grammar that functional projections are the ultimate units of change. Indeed, the biological analogy adopted here suggests that the clause structure (as studied for instance within the cartographic framework) is comparable to a DNA sequence. It contains all syntactic features, their formal licensing properties and related parameters (i.e., the licensing specifications of the host functional item). Functional projections on the other hand encode specific features and their related parameters. As a consequence, idiolects, that is, the extensions of particular I-languages, are comparable to phenotypes in that they are expressions of a combination of syntactic nodes according to how the associated parameters have been set in the language.

what I-languages should recombination not be able to generate? I argued in Aboh (2006, 2015) that even though recombination of syntactic features is free, it is subject to UG which filters out non-converging outputs. UG therefore imposes a limit on recombination. Another question asked by this reviewer is whether recombination could produce a structure with a featural content that is not a subset of the union of the featural sets expressed in the PLD. It is important to recall here that learners create new linguistic forms based on the analyses of the inputs they are exposed to as well as their Knowledge of Language. As shown by adposition doubling in Ndyuka, even though recombined forms are based on learners' analysis of the input, these forms may be formally different from those in the input or may embed featural contents that are not part of their equivalents in the input. In the case at hand for instance, adposition doubling in Ndyuka requires morphosyntactic properties as well as formal syntactic properties that do not seem to stem directly from the input generated by the Gbe languages or English. Therefore, the input does not restrict learners' computational capacity. I refer the reader to Aboh (2009, 2015) for the discussion of these questions including how competition and selection proceeds and why some linguistic features tend to prevail in contact situations while others tend to be lost.

What appears from this discussion is that any components of the triplet in (11) can be affected differently in a contact situation contingent on acquisition, such that the learner develops a new form that is (minimally) distant from the target (or communal norms), though compatible with UG. Aboh (2006, 2009, 2015) discusses how emerging I-languages may combine syntax and semantics from competing patterns in various ways and which factors (e.g., the nature of the feature being selected, the interface properties) regulate feature selection. I will not reproduce this discussion here. Instead, I will briefly illustrate how early Sranan recombines properties of its source languages into a coherent system. Let us consider again early Sranan locative expressions repeated in (12).

(12) a. Pattern 1

Sinsi a komm na hosso inni...
 Since 3SG come P₁ house P₂
 ‘Since she entered the house...’

b. Pattern 2

Mi kkommotto na inni djari
 1SG come.out P₁ P₂ garden
 ‘I’m coming from the garden.’

c. Pattern 3:

A truh watra na inni vo wan tobbo
 3SG throw water P₁ P₂ of DET tube
 ‘He threw water into a tube.’

What we see here is that Sranan speakers reanalyzed English adposition *in-to* as *na-inni*, where P₁ corresponding to English *to* precedes P₂, the equivalent of *in*. This order (i.e., P_{1-na}-P_{2-inni}) is the mirror image of the English adposition *into* which realizes the sequence P_{2-in}-P_{1-to}. The Sranan *na-inni* complex should not be regarded as a ‘misanalysis’ though. Instead, this development suggests a formal analysis of English *in-to* as deriving from *to-in* where the adposition *to* merges in P₁ which selects a predicate expression containing the part phrase *in/inner* which realizes P₂. The latter subsequently raises past the GROUND DP to a position right-adjacent to P₁ thus generating the order P_{2-in}-P_{1-to} (i.e., *in-to*, the mirror image of the underlying order P_{1-to}-P_{2-in} cf. Aboh 2010). Once we allow ourselves to analyze English complex adpositions this way, we immediately realize that most morphologically complex adpositions in this language can be segmented into minimally two components corresponding to P₁ and P₂ (and a genitive marker). The following table provides some illustrations. Note from this paradigm that *in-to* is the odd man out (the only one pronounced in the inverse order).

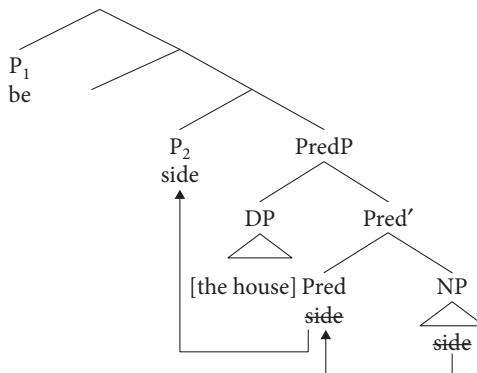
Table 2. English complex adpositions decomposed

P ₁	P ₂	Genitive
to	in/inner	
be	neath	
be	low	
A-b-	ove	
be	side	
out	side	
in	side	
in	front	of

Following Aboh (2010), this description suggests that an English sequence like (13a) should be analyzed as in (13b), literally corresponding to the sequence “John is by the house-side”

(13) a. John is be-side the house.

b.

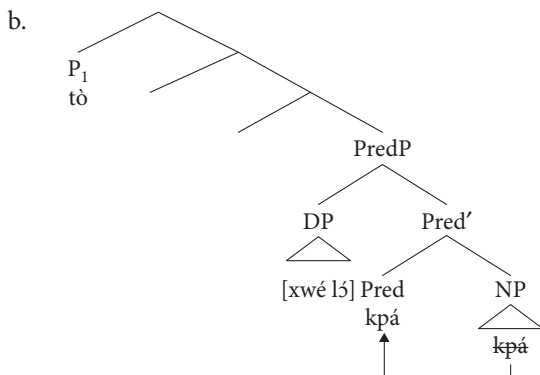


Here *be* (which develops from *by*) first merges in P₁. The part noun phrase *side*, expressing P₂, merges as a bare NP but raises to Pred and subsequently past the GROUND DP *the house*, to a head position right adjacent to P₁, where it is licensed. The morphological fusion of P₁ and P₂ yields the form *be-side*.¹²

Keeping to this rationale, the Gungbe equivalent in (14a) can be represented as in (14b). Here, the part noun *kpá* expressing P₂ raises to Pred, while the element *tò* merges in P₁.

12. See Aboh (2010) for the derivation of *in-front-of* in a similar fashion where it is proposed that *in* first merges in P₁. The part noun phrase *front*, expressing P₂, merges as a bare NP and subsequently raises to Pred, where it attaches to the genitive marker of *of*. The complex form thus formed subsequently raises past the Ground DP, yielding the sequence *in-front-of*.

- (14) a. Ján tò xwé l5 kpá.
 John at house DET side
 'John is beside the house.'



It appears from this description that a fundamental distinction between P_2 , *kpá* in Gungbe, and its English equivalent *side* is that while the former incorporates into Pred, the latter raises subsequently to a higher position to the left of the GROUND phrase. Yet, Gungbe as well as other Gbe languages also involve locative constructions similar to (13a) where the PART is a full noun and precedes the GROUND DP as already shown in Example (5) repeated here as (15).

- (15) Û m3n Àdámù tò nùk3n ná [DP àtín l5] Gungbe
 1SG saw Adam P₁ P_{2[FRONT]} for tree DET
 'I saw Adam in front of the tree.'

Therefore, Gungbe represents a superset of the English pattern. This further suggests that there is a higher probe in both languages that attracts the Pred, expressed by P_2 or a DP representing the part-phrase. Further study is needed to understand all morphosyntactic correlates of this parametric difference.

What matters for the current discussion, however, is that the different licensing properties described here for English (Germanic) and Gungbe (Gbe) are combined into Sranan to produce the patterns in (2a-c). The Sranan sequence *na-inni*, which can be paraphrased as *be-located at the inner-part of* embeds a complex set of licensing properties that is the consequence of contact between English and the Gbe languages. I conclude that:

- i. There is a selectional requirement according to which *na* representing P_1 (similarly to English *to* or Gungbe *tò*) selects a predicate phrase including the GROUND DP, as subject, and its associated part phrase expressing P_2 as complement.

- ii. The head of the part phrase expressing P_2 incorporates into the head of predicate Pred where it is licensed (e.g., Gungbe).
- iii. The head of the part phrase expressing P_2 may subsequently move to a head position higher than the GROUND DP (as in English).

Accordingly, the apparent optionality that early Sranan displays with regard to locative expressions has its source in the grammars of the competing languages that came in contact on the Suriname plantation. It is in this sense that I refer to this module of Sranan grammar as a hybrid system.

As the reader may see, not only is the emergent system different from its sources, but it cannot be regarded as a simplified approximation or deficient version of the European colonial languages that it evolved from, pace McWhorter (2001). Indeed, the morphosyntactic properties of the combination *na-inni* in early Sranan are different from equivalent combinations in both English and Gungbe (see also Kouwenberg, this volume, for a similar conclusion on Berbice Dutch adpositions). The following table compares Sranan to its source languages. In Table 3, “+” encodes presence of the relevant pattern in a language while “-” means absence thereof.

Table 3. Variation of spatial expressions in Gbe, Sranan, and English

	Pattern 1: P_1 -DP _[GROUND] - P_2	Pattern 2: P_1 - P_2 -DP _[GROUND]	Pattern 3: P_1 - P_2 -GEN-DP _[GROUND]
Gbe	+	-	+(for full noun phrases)
Sranan	+	+	+
English	-	+	+

This table shows that Sranan is similar to Gungbe in that it displays the sequence P_1 -[DP_{GROUND}]- P_2 (pattern 1), but unlike English which lacks this pattern.¹³ Yet, Sranan is similar to English (and partially Gungbe) in exhibiting the orderings P_1 - P_2 -(GEN)-[DP_{GROUND}] shown in patterns 2 and 3. Far from being a reduction of its sources, the new system in Sranan represents a superset of the licensing possibilities present in both English and Gbe. Under a simplistic complexity metrics as the one proposed in McWhorter (2001), Sranan appears to be more complex than English and Gungbe. As already argued in Aboh (2009, 2015), Aboh & Smith (2009), Aboh & DeGraff (2016), simplicity/complexity thus measured is uninformative. For the purpose of this paper, it suffices to say that the irregularity (or apparent optionality) that Sranan and other Suriname creoles exhibit can be a source of local

13. Though English language involves sequences such as *mountain-top*, *river-side* etc., such sequences are far less productive in this language than in Gbe.

complexification that learners of these languages must acquire. These facts lead to the question of how unique creole languages are in displaying such (complex) recombination of syntactic features.

5. Conclusion

In Section 2, I showed that the significance of the Kingdom of Allada in the context of Suriname and Haiti during the formation period is that it obtained slaves from a clearly delineated region that was linguistically relatively homogeneous (i.e., mainly Gbe speakers and speakers of related Kwa languages not too foreign to Gbe speakers, e.g., Yoruba). Early creole societies in Suriname (and Haiti) therefore involved cohesive Gbe communities which were instrumental in the formation of the creole society and creole language. Given that there were probably other similarly homogeneous enslaved African communities on the plantations (e.g., the Kikongo in Suriname) it is reasonable to assume that the enslaved Africans, in addition to speaking their native languages, engaged in learning the colonial vernacular in addition to other African languages that might have been spoken on the plantation (cf. Kouwenberg 2009, this volume; Smith 2009). Early creoles societies were therefore multilingual.

It is against this background that I would like to answer the question of creole uniqueness. Creoles are by no means unique in developing hybrid grammars. I surmise that natural languages involve hybrid systems as a rule. Creoles only show a certain degree of hybridization due to the socio-historical matrix of their formation which involved typologically and genetically unrelated languages.

The framework put forth in this chapter (cf. Sections 3 and 4) suggests that language acquisition can be understood as a learning process whereby: the language learner, endowed with UG, recombines distinctive linguistic features from the diverse idiolects that provide the Primary Linguistic Data she is exposed to. This recombination eventually results into a stable system that represents her I-language. In L1 contexts, recombination feeds on Primary Linguistic Data that are provided by distinct but relatively converging idiolects. However, in L2-L1 cascade situations such as during creole formation or language change in which the outputs of adults L2 learners forms part of the inputs of L1 learners (DeGraff 1999, 2002, Meisel 2011; Aboh 2015), recombination may feed on both the native languages of the adult learners and on Primary Linguistic Data that express (typologically) distinct linguistic features (including the interlanguages of speakers with distinct native languages), thus resulting in the contrastive systems sometimes observed in creole or contact languages. In all these situations of language acquisition, the emerging grammar is a hybrid system by definition.

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Appendix: Conventions for interlinear glosses

ASP	aspect
CON	conjunction
DET	determiner
PROG	progressive
SG	singular