

**What Can the Relabeling-based Theory of
Creole Genesis and Development Explain?**

Claire Lefebvre

Université du Québec à Montréal

Unpublished manuscript September 2018

Abstract

Drawing on some forty years of research, this paper discusses the wide range of facts that the relabeling-based theory of creole genesis and development can explain. It is argued that the nature of this cognitive process, the way it operates, and the way it interacts with other processes in the further development of a creole (e.g. grammaticalization, leveling, diffusion across the lexicon) explain the features that any theory of creole genesis should be able to account for. It even accounts in a principled way for data that, at first glance, may appear as exceptions to the theory. Two variables are shown to play a role in defining the final output predicted by this theory: the amount of exposure to the superstrate language when the creole is formed, and whether speakers of a developed creole still have access to the source languages. It is further shown that the relabeling-based theory of creole genesis and development predicts in a principled way the sources of the typological features of creoles in specific areas of the grammar.

Key words: creole genesis, relabeling, grammaticalization, leveling, diffusion across the lexicon.

1. Introduction: The relabeling-based theory of creole genesis and development

Relabeling is a cognitive process that operates in the lexical component of the grammar. Given that a lexical entry consists of a label (or phonological representation) associated with semantic and syntactic features, in non-technical terms, the process of relabeling may be described as replacing the label of a lexical entry of language A by a label drawn from language B. Relabeling thus produces lexical entries that are hybrid: they have semantic and syntactic properties drawn from one language, and labels drawn from another language. (A more technical definition of the process will be provided in section

This paper is based on two talks: "Cognitive processes in language genesis" given at the Conference on the emergence of Modern Hebrew, The Hebrew University of Jerusalem, July 2016; "What can the relabeling-based theory of creole genesis explain?" given at the Conference on Diversity Linguistics: Retrospect and Prospect, Max Planck Institute for Evolutionary Anthropology in Leipzig, May 2015. I would like to thank the participants for their comments and questions. I would also like to thank my collaborators and graduate students who, over the years, contributed in various ways to the formulation and documentation of the theory summarized in this paper. Many thanks also to Henrietta Cedergren, Claude Dionne, Christine Jourdan, Paul Kay, Bettina Migge, and Robert Papen, for their most useful comments on an earlier version of this paper. Last but not least, I am very grateful to the following research agencies for funding this long term research: SSHRCC, FCAR and FIR-UQAM.

2).¹ This process has been shown to play a role in a number of language contact situations: in the first phase of acquisition of L2 (Sprouse 2006), in the formation of bilingual mixed languages (e.g. Muysken 1981), creoles (e.g. Lefebvre 1998; Lumsden 1999; Koch 2000; Bruyn 2003; Migge 2003), New Englishes (e.g. Bao 2005, 2010), and in language death (Hill and Hill 1977).²

Over the past forty years, with several research teams, I have developed a theory which I will refer to as 'The relabeling-based theory of creole genesis and development'. The sole aim of this paper is to bring together the various components (dispersed in the literature) of this theory as it now stands. It is shown that the nature of the cognitive process of relabeling, the way it operates in creole genesis, and the way it interacts with other processes that apply in the further development of a creole constitute a sound theory of creole genesis and development.

¹ Relabeling is also known as relexification, a term that has been wrongly interpreted as yielding a language that has the lexicon of one language and the syntax of another, a view that is hardly conceivable in current models of grammar in which lexical and syntactic features are expected to match. The use of the term relabeling clears up the confusion associated with the term relexification.

² Authors use various terms to refer to the process that I refer to as 'relabeling': relexification, full transfer, misascription, reinterpretation, reanalysis, calquing. For discussion, see Lefebvre (2015a: 10-6).

The relabeling-based theory of creole genesis first outlined in Lefebvre and Lumsden (1989, 1994a) and subsequently developed in several major publications (e.g. Lefebvre 1998, 2004, 2011 ed., 2015a, 2015b, and the references cited therein), can be summarized as follows. The theory holds that the cognitive process of relabeling is a central process in creole genesis. It is claimed that relabeling is used by speakers of the substrate languages as a means of acquiring a second language, the superstrate language. The account proposed here is thus a further development of the second language acquisition approach to creole genesis (see e.g. Alleyne 1981; Lefebvre et al. 2006; Schumann 1978; Valdman 1980; Thomason and Kaufman 1991). It is congruent with the Full Transfer/Full Access model of second language acquisition (Schwartz and Sprouse 1996) where Full Transfer can be restated in terms of relabeling (Sprouse 2006). The question of why relabeling is to be preferred over transfer as a central process in creole genesis is addressed in Lefebvre (2009: 290-3).

By its very nature, however, relabeling cannot be the only process in creole formation. Other processes that play a role in language change in general, such as grammaticalization, leveling, diffusion across the lexicon, etc., also play a role in the further development of creoles. Relabeling interacts with these processes in a way that will be specified in section 4. In the scenario of creole genesis developed in the course of this research (e.g. Lumsden and Lefebvre 1994), relabeling operates when the creators of a creole are targeting the superstrate language. When speakers target the incipient creole, that is, the relabeled lexicons, other processes apply. In this view, grammaticalization,

leveling and other processes of language change that apply in the further development of a creole, are conceived of as operating on the output of relabeling.

A theory makes predictions. The relabeling-based theory of creole genesis and development does precisely that. Among other things, it predicts that the bulk of a creole's lexical entries should present the division of properties (between the source languages) created by relabeling. A theory should be formulated in terms that are precise enough so as to be falsifiable. The test of the relabeling-based theory of creole genesis consists in a threeway comparison of the properties of the lexical entries of a creole with those of the lexical entries of its substrate and superstrate languages: if the bulk of a creole's lexical entries does not present the division of properties predicted by the process of relabeling, the theory will have been falsified (Lefebvre and Lumsden 1989; Lefebvre 1998:70-5). A theory should be able to account for the features that define the object it seeks to explain. What exactly are the features that a theory of creole genesis should be able to explain?

The features that characterize the history and structure of creole languages are the following.³ First, creoles only develop in multilingual communities. In communities where two languages coexist, the speakers of one group will eventually learn the language of the other group (Whinnom 1971). Second, communities where creoles emerge involve several substrate languages, spoken by the majority of the population,

³ An extensive discussion of each of these features may be found in Lefebvre (1998: 1-5), which builds upon a preliminary one in Lefebvre and Lumsden (1989).

and generally one superstrate language, spoken by a relatively small portion of the population. The lack of a common language in the early creole community creates the need for a *lingua franca* to permit communication between the speakers of the substrate languages and those of the superstrate language, as well as communication between speakers of the various substrate languages (e.g. Hymes 1971; Singler 1988; Thomason and Kaufman 1991). Third, speakers of the substrate languages have variable access to the superstrate language. This access is generally assumed to be rather limited (e.g. Foley 1988; Thomason and Kaufman 1991). Fourth, as they may be created within the span of one, two or three generations (e.g. Alleyne 1966; Voorhoeve 1973), the time frame of creole language formation is quite rapid when compared with cases of regular linguistic change (e.g. van Name 1869-70; Hesseling 1933). Fifth, in general, creole lexicons derive their properties from those of their contributing languages in a principled way: while the labels of the creole lexical entries tend to be derived from the superstrate language, the semantic and syntactic properties of the lexical entries tend to be derived from the substrate languages (e.g. Adam 1883; Sylvain 1936; Voorhoeve 1973). Exceptions to this general tendency are reported cases where the semantics of creole lexical items follows that of the superstrate language (e.g. Essegbey and Ameka 2007; Siegel 2008). There are also cases where the properties of creole lexical entries follow neither those of their substrate nor those of their superstrate languages (e.g. Lefebvre 2009). All these cases need to be accounted for. Sixth, several substrate languages may contribute features to a given creole (e.g. Dillard 1970). Seventh, creole languages tend to be isolating languages, even in cases where all the contributing languages are agglutinating (e.g. Mufwene 1986,

1990). Eighth, although creole word orders generally reproduce those of their superstrate language (e.g. DeGraff 1999; Plag 2008; Siegel 2008), in some cases they manifest those of their substrate languages (e.g. Essegbey 2005). Ninth, with the exception of the last two features, the typological properties of creole languages tend to reproduce those of their substrate languages (e.g. Comrie 2011; Lefebvre 2011 ed.; Michaelis et al. eds. 2013). Finally, in their further development, creoles develop lexical entries that manifest the properties of their substrate languages, even in situations where the substrate languages have ceased to be spoken (e.g. Mühlhäusler 1986; Mufwene 1990; Sankoff 1990). These features are summarized in Table 1.

[insert Table 1 about here]

An optimal theory of creole genesis must account for all these features (and possibly more). In Lefebvre (2004 Chapter 2; 2015a: 266-271),⁴ it is shown that theories of creole genesis that have been proposed in the literature account for various subsets of the above list of features but that none accounts for all of them. This paper argues that the relabeling-based theory of creole genesis can explain all the features that are listed in Table 1. It is shown that the nature of relabeling (section 2), the way it operates (section 3), and the way it interacts with other processes involved in the further development of a creole (section 4) provide a principled explanation of the features that characterize the history and structure of creole languages. Section 5 shows that the relabeling-based

⁴ Lefebvre (2004) discusses all the theories proposed prior to the 'feature pool' proposal. Lefebvre (2015a) discusses the 'feature pool' proposal.

theory of creole genesis even predicts in a precise way the source of the typological features of creoles, that is, those that are attributable to the substrate and those that are attributable to the superstrate.

This paper focuses on the creation of creole lexical entries from the point of view of their semantic and syntactic properties. Phonological properties and how they are established in creoles are not discussed here.⁵ Of the processes involved in the further development of creoles, this paper focuses on grammaticalization, leveling and diffusion across the lexicon. It is assumed that other processes that play a role in language change in general may apply as well in the further development of creoles. Although innovations are not discussed here, they are assumed to take place in the development of a creole in the same way as they do in other languages.⁶ This paper presents only a few examples supporting the views advocated here. For more elaborate and detailed descriptions, analyses and discussions, the interested reader is invited to consult the extensive published work on the topic, mainly Lefebvre (1998, 2004, 2011 ed., 2015a, 2015b); Lefebvre et al. eds. (2006); and the references cited therein. The bulk of my research was carried out on the basis of Haitian Creole and its source languages (French, and the Gbe languages of the West African Kwa language family, see e.g. Lefebvre 1998 and the

⁵ For a discussion of how the phonological systems of creoles come about, see e.g. Brousseau (2003, 2011); Brousseau and Nikiema (2006); Steele and Brousseau (2006).

⁶ Some innovations that occurred in the development of Haitian Creole are discussed in Lefebvre (1998: 12, 51, 87-9, 206-8, 269-71, 283-7, 323-33, 349-51).

references cited therein), and later, on Saramaccan and its source languages (English and Portuguese, and the Gbe languages, see e.g. Smith 1987), and on Papiamentu and its source languages (Portuguese and Spanish, and the Gbe languages, see e.g. Rawley 1981). Several examples presented in this paper are drawn from these three Atlantic creoles and their source languages. It goes without saying that the Gbe languages were not the only West African languages spoken when Caribbean creoles were formed. However, they had an important input into these creoles due to the number of speakers from this language group at the relevant time (e.g. Singler 1993, 1996; Lefebvre 1998: 52-60). Gbe languages constitute a dialect cluster (e.g. Capo 1984). Most examples cited in this paper are from Fongbe. The motivation for this choice is extensively discussed in Lefebvre (1998: 65-70). On the basis of the literature, I also provide examples drawn from various other creoles of the world. I assume that all creoles are created by means of the same processes discussed on the basis of the Atlantic creoles cited above, and that the genesis of Haitian, Saramaccan or other creoles are no exceptions.

The sole aim of this paper is to bring together the various components of the relabeling-based theory of creole genesis and to show how this theory accounts for the features that characterize the history and structure of creole languages. Consequently, in this paper I will not compare the theory advocated here with other proposals on creole genesis. Such comparisons may be found in Lefebvre and Lumsden (1989), Lefebvre (2004 Chapter 2), Lefebvre (2015a Chapters 2 and 9). I will not address either the critics of the theory presented here prior to 2015, since this has already been done over the years in all of my published works (see e.g. Lefebvre 1998; Lefebvre 2004 Chapters

5, 7, 8, 10; Lefebvre 2015b). I will only address critics that were published since 2015 and that I did not have a chance to address elsewhere. In light of these preliminary remarks, I now turn to the discussion of the nature of the process of relabeling and of how it explains major features of the history and structure of creoles.

2. The nature of the process of relabeling and the account of features of the history and structure of creoles

This section begins with a formal representation of relabeling, followed by three examples illustrating the process. The third section shows how the nature of relabeling accounts for a number of features of the history and structure of creole. The section ends with a discussion of two variables that may interfere with the output predicted by the relabeling-based theory of creole genesis.

2.1. A formal representation of relabeling

Relabeling is a cognitive process that consists in assigning to a lexical entry a new label derived from a phonetic string drawn from another language. It is schematically represented in (1). Given a lexical entry as in (1)a, assign to this lexical entry a parallel phonological representation derived from another language's phonetic string, as in (1)b, and eventually, abandon the original phonological representation. This process yields a lexical entry that has the representation in (1)c, that is, the semantic and syntactic properties of the original entry and a phonological representation derived from a phonetic string drawn from another language.

- (1) a. /phonological representation/_{*i*}
 [semantic features]_{*i*}
 [syntactic features]_{*i*}
- b. /phonological representation/_{*i*} /phonological representation/_{*j'*}
 [semantic features]_{*i*}
 [syntactic features]_{*i*}
- c. /phonological representation/_{*j'*}
 [semantic features]_{*i*}
 [syntactic features]_{*i*}

In diagram ((1)b and c), the label assigned to the lexical entry created by relabeling is identified as *j'*. Since relabeling proceeds on the basis of another language, the new label is identified as *j* as opposed to *i*, thus relating it to this other language. However, the phonological representation of the new label, the creole label, does not correspond to that of the language from which it is drawn. As Brousseau and Nikiema (2006) and Steele and Brousseau (2006) argue at some length, the phonological system of a creole does not correspond to that of the language that has provided its labels. Rather, it represents a principled compromise between the phonological systems of the substrate and superstrate languages. Thus, the new label in (1)b and (1)c is identified as *j'* indicating that it is derived from language *j* but that it is phonologically distinct from it.

The process of relabeling is semantically driven. The meanings of superstrate phonetic strings are deduced from their use in specific semantic and pragmatic contexts (Lefebvre and Lumsden 1994a). For relabeling to occur, "the semantic representations of source and target language lexical entries must partially overlap; otherwise, the two entries would never be associated with each other" (Muysken 1981: 62). How much semantic overlap should there be between the substrate and superstrate forms for them to be associated with one another? The analyses presented in Lefebvre (1998, Chapters 4 to

10) show that the semantic overlap may range from little (e.g. the Haitian definite determiner) to complete (e.g. strong personal pronouns) overlap between the two forms. Since the process is semantically driven, other features of the two form (e.g. syntactic features) "may, but need not, be associated with each other" (Muysken 1981: 62).

2.2. Three examples of relabeling

The process of relabeling is exemplified below on the basis of three sets of data. The first one involves the Haitian noun *plim* which means both 'feather' and 'hair' (Valdman et al. 2007). As is shown in (2), the form *plim* is derived from the French form *plume*. However, in French, this lexical entry has only one meaning, 'feather'. This is so even in the 17th century as per Furetière's dictionary which contains one lexical entry meaning 'feather' *plume* and one lexical entry meaning 'hair' *poil*. Therefore, French *plume* cannot be the source of the extra meaning associated with the Haitian lexical entry. The Fongbe lexical entry, however, has the same two meanings as the Haitian one (Segurolo and Rassinoux 2000). So, it must be the source of the extra meaning associated with Haitian *plim*. The nature of the process of relabeling predicts the properties of the Haitian lexical entry: it has the semantics of the corresponding lexical entry in the substrate language and a label derived from the superstrate language.⁷

⁷ List of abbreviations: COMP: complementiser; CONT: continuative; DEF: definite determiner; DEM: demonstrative determiner; DET: determiner; FUT: futur; GEN: genitive case marker; G/L: goal/locative; LOC: locative; N: noun; NC: numeral classifier; NP: noun phrase; NUM: number; OP: operator; PERF: perfective; PL: plural marker; POSS: possessive; PP: postposition; PST: past; RCP: reciprocal; SELF: anaphor; TOP: topic; V: verb.

(2)	HAITIAN	FRENCH	FONGBE
	<i>plim</i>	<i>plume</i>	<i>fún</i>
	‘feather’	‘feather’	‘feather’
	‘hair’		‘hair’

(from Lefebvre 1998: 71)

Interestingly enough, as is shown in (3), in both Haitian and Fongbe, the word meaning 'feather, hair' forms a compound with the word meaning 'eye' yielding the composite meaning 'eyelash'. This is in spite of the fact that the French simplex *cil* 'eyelash' was available in 17th century French (Furetière's Dictionary).

(3)	FRENCH	HAITIAN	FONGBE	
	<i>cil</i>	<i>plim-je</i>	<i>nùkún-fún</i>	‘eyelash’
	‘eyelash’	‘hair-eye’	‘eye-hair’	

Furthermore, the Haitian compound in (3) follows a regular pattern of the substrate language, shown in (4), where BODY-parts are referred to by means of compounds (word order differences between the Haitian and the Fongbe compounds will be discussed in section 5.3).

(4) FRENCH	HAITIAN	FONGBE	
<i>lèvre</i>	<i>po-bouch</i>	<i>nù-fló</i>	‘lip’
‘lip’	‘skin-mouth’	‘mouth-skin’	
<i>narine</i>	<i>twou-ne</i>	<i>à̀ntín-dó</i>	‘nostril’
‘nostril’	‘hole-nose’	‘nose-hole’	
<i>nuque</i>	<i>dèyè-kou</i>	<i>kò-gùdó</i>	‘nape’
‘nape’	‘back-neck’	‘neck-back’	
<i>crâne</i>	<i>kalbas-tèt</i>	<i>tà-ká</i>	‘skull’
‘skull’	‘calabash-head’	‘head-calabash’	
	or <i>tèt-kalbas</i>		(from Brousseau 1989)

The Haitian data in (2), (3) and (4) follow in a straightforward way from the process of relabeling.

The second set of data involves the Haitian lexical entry *gade* and the closest lexical entries in the Haitian source languages. The data and analysis are drawn from Lefebvre (1999) which consists of a large study of the source of the semantic properties of Haitian verbs. The concept of lexical entry on which the analysis is based holds that monosemy is preferred over polysemy (for all lexical categories). The One Form/One Meaning Principle (Johns 1992:84) is assumed: "Where morphemes are identical or similar in phonological properties, in the unmarked case, they are identical or similar in all lexical properties". (It goes without saying that this general principle does not apply to forms that have come to have the same phonological representation as a result of diachronic phonetic changes). A stronger version of this principle, known as the Strong

Monosemy Principle (Cowper 1995:3), is also assumed: "The Conceptual Structure of a lexical entry may contain no disjunctions and no optional elements. If the Conceptual Structure of two uses of a lexical item cannot be unified through underspecification, then, they must be treated as distinct lexical entries". The concept of lexical entry adopted for the study of the semantics of lexical entries is thus based on monosemy in as much as the various specific meanings of a lexical entry do have a common semantic core which can be represented by a single Lexical Conceptual Structure (LCS). In this framework, the LCS of a verb which has several related meanings is underspecified such that it can subsume all its specific meanings. (For further discussion of this theoretical approach, see Lefebvre (1999: 65-69, and the references cited therein.). In the examples in the text, the semantics of verbs is discussed in terms of their specific meanings.

Consider the data in (5). The Haitian verb *gade* has the specific meanings 'to watch over/to take care of' and 'to keep' (Valdman et al. 1981). It shares these meanings with the French verb *garder* [garde] 'to watch over/to take care of' and 'to keep', from which it draws its label. Haitian *gade* does not share the other meanings of the French verb *garder*, such as 'to protect oneself', 'to defend oneself against' (Furetière 1984). The specific meanings of Haitian *gade*, however, all find a match in the corresponding Fongbe verb *kpɔ́n* which basically means 'to watch over/to take care of' and 'to keep' (Rassinoux 1987). This verb also means 'to look', a meaning which is also associated with Haitian *gade* (Valdman et al. 1981), but not with French *garder*. French expresses the notion 'to look' with another, though morphologically related, verb: *regarder*. Furthermore, Haitian *gade*, like Fongbe *kpɔ́n*, occurs in an expression meaning 'to

imitate': *gade sou* (Lit.: 'to look on') 'to imitate' (Valdman et al. 1981); *kpɔ́n dɔ́* (Lit.: 'to look on')⁸ 'to imitate' (Rassinoux 1987). French uses a different verb to encode this notion: *imiter* 'to imitate'. As French does not have anything close to the Haitian expression *gade sou* 'to imitate', it is not possible to explain the specific meaning 'to imitate' associated with Haitian *gade sou* without reference to Fongbe *kpɔ́n dɔ́* 'to imitate'.

(5) HAITIAN	FRENCH	FONGBE
<i>/gade/</i>	<i>/garde/</i>	<i>/kpɔ́n/</i>
'to watch over'	'to watch over'	'to watch over'
'to take care of'	'to take care of'	'to take care of'
'to keep'	'to keep'	'to keep'
	'to protect oneself'	
	'to defend oneself against'	
'to look'	<i>/regarde/</i>	'to look'
'to imitate'	<i>/imite/</i>	'to imitate'

The semantic properties of the Haitian verb *gade* in (5) thus appear to follow from the process of relabeling. The substrate (e.g. Fongbe) and the superstrate (French) lexical

⁸ The Fongbe lexical item *dɔ́* is a verb which has the specific meanings 'to plant', 'to apply', 'to put' (and a few other related ones). Segurola and Rassinoux (2000: 130) specify that this lexical item often translates as prepositions such as 'on', 'for', etc.

entries that are associated in relabeling share partial elements of meaning: 'to watch over, to take care of, to keep'. The creole lexical entry has a label that is derived from French, but it manifests the full range of specific meanings associated with the corresponding substrate lexical entry, as predicted by relabeling. Since all the specific meanings of Haitian *gade* and Fongbe *kpón* share some element of meaning, it should be possible to provide a single Lexical Conceptual Structure for these verbs in agreement with a monosemic approach to the lexicon (an exercise that I leave for future research).

There is another meaning associated with the Haitian form *gade*: 'to concern' (Valdman et al. 1981) (see Lefebvre 1999:71). In French, this notion is associated with the verb *regarder* meaning 'to look' and 'to concern' (Furetière 1984). In Fongbe, the notion 'to concern' is rendered by the verb *kán* which, unlike the French verb, does **not** also mean 'to look' (Rassinoux 1987). In Lefebvre (1999:71), it is proposed to account for these facts in the following way: the substrate verb *kán* was relabeled as *gade* on the basis of French *regarder* (from which the first syllable was truncated), as is depicted in (6).

(6)	HAITIAN	FRENCH	FONGBE
	<i>gade</i>	<i>regarder</i>	<i>kán</i>
	'to concern'	'to concern'	'to concern'
		'to look'	

On this analysis, there are two lexical entries labeled as *gade* in Haitian: one corresponding to Fongbe *kpón* relabeled as *gade* on the basis of the French verb *garder*, and one corresponding to Fongbe *kán* relabeled as *gade* on the basis of the French verb

regarder. Many more examples of this type can be found in Lefebvre (1998, 1999) and in Lumsden (1999).

A third set of data illustrating the manifestation of relabeling in a striking way involves the cluster of four verb doubling constructions. In the Gbe languages, these constructions encode temporal adverbial clauses, causal adverbial clauses, factive clauses and the predicate cleft construction. This cluster of four verb doubling constructions is also found in the Caribbean creoles. In all cases, the structures of these constructions are the same as in the Gbe languages. What varies from language to language is the labels' source language. While the source of the Haitian labels is French, that of the Saramaccan labels is English (and, to a lesser extent, Portuguese), and that of the Papiamentu labels is Spanish (and, to a lesser extent, Portuguese). These constructions are illustrated in (7) for Fongbe and Haitian, in (8) for Saramaccan, and in (9) for Papiamentu.

(7) a. TEMPORAL ADVERBIAL

***Wá** Jan wá (tróló) b̀̀ M̀̀rì yì.* FONGBE

***Rive** Jan rive epi Mari pati.* HAITIAN

arrive John arrive as-soon-as and-then Mary leave

‘As soon as John arrived, Mary left.’ (=1) in Lefebvre 1994b)

b. CAUSAL ADVERBIAL

Wá Jan wá útú Màrí yì. FONGBE

Rive Jan rive Mari pati. HAITIAN

arrive John arrive cause Mary leave

‘Because John arrived, Mary left.’ (=2) in Lefebvre 1994b)

c. FACTIVE

Wá dǝ̀è Jan wá ó víví nú nǝ̀ tǝ̀n. FONGBE

Rive ø Jan rive a, fǝ̀ manman li kǝ̀ntan. HAITIAN

arrive OP John arrive DEF make(-happy) for mother his happy

‘The fact that John arrived made his mother happy.’

(=3) in Lefebvre 1994b)

d. PREDICATE CLEFT

Wá wǝ̀ Jan wá. FONGBE

Se rive Jan rive. HAITIAN

it-is arrive it-is John arrive

‘It is arrive that John did (not e.g. leave).’ (=4) in Lefebvre 1994b)

(8) a. TEMPORAL ADVERBIAL

Ko Rohit ko a wosu pala, hen Rowe go. SARAMACCAN

arrive Rohit arrive LOC house as-soon-as and.then Rowe leave

‘As soon as Rohit arrived at the house, Rowe left.’ (Lefebvre’s field notes)

b. CAUSAL ADVERBIAL

Waka a waka, a ko wei. SARAMACCAN

walk 3rd walk 3rd get tire

‘Because she walked, she got tired.’ (Lefebvre’s field notes)

c. FACTIVE

Di waka a waka, hen mei a ko wei. SARAMACCAN

DEF walk 3rd walk it cause 3rd get tire

‘The fact that she walked caused her to get tired.’ (Lefebvre’s field notes)

d. PREDICATE CLEFT

Waka a waka lontu di wosu. SARAMACCAN

walk 3rd walk go around DEF house

‘He really walked around the house.’ (= (11b) in Van den Berg 1987: 104)

(9) a. TEMPORAL ADVERBIAL

Yega ku Juan a yega, Maria a bai. PAPIAMENTU

arrive LOC John PERF arrive Mary PERF go

‘As soon as John arrived, Mary left.’ (Kearns 2008)

b. CAUSAL ADVERBIAL

E yega ku Juan a yega, a hasi ku PAPIAMENTU

DEF arrive COMP John PERF arrive PERF make COMP

Maria a bai.

Mary PERF go

‘Because John has arrived, Mary left.’ (Kearns 2008)

c. FACTIVE

E yega ku Juan a yega a hasi PAPIAMENTU

DEF arrive COMP John PERF arrive PERF make

su mama felis.

POSS mother happy

‘The fact that John has arrived made his mother happy.’ (Kearns 2008)

d. PREDICATE CLEFT

Ta kome el a kome. PAPIAMENTU

it.is eat 3sg PERF eat

‘He has eaten.’ (= (332) in Maurer 1988: 141)

The three sets of data presented above clearly illustrate the manifestations of relabeling in the genesis of the Caribbean creoles.

2.3. Relabeling and the account of features of the history and structure of creoles

The nature of the process of relabeling explains several of the features of the history and structure of creole languages. The relabeling of several substrate lexicons on the basis of

a single superstrate language provides the multilingual community with a common vocabulary, a *lingua franca* (features 1 and 2) (Lefebvre and Lumsden 1989). The sole condition for relabeling to take place consists in shared partial semantics between the substrate and the superstrate forms that are associated in the process. Consequently, the detailed properties (e.g. semantic, syntactic, etc.) of the superstrate phonetic strings need not be accessible to the substrate speakers. This is congruent with the fact that the creators of a creole have generally limited access to the superstrate language (feature 3). Since the details of the superstrate lexical entries need not be learned, the relabeling of lexicons of several languages may be achieved in a relatively short period of time. This explains the fact that the time frame of creole formation is quite rapid when compared with regular cases of linguistic change (feature 4). The very nature of the process of relabeling explains in a principled way why creoles reflect the properties of both their source languages in the way they do: while the labels of creole lexical entries are derived from phonetic strings of the superstrate language, the semantic and syntactic properties of these lexical entries tend to be derived from the substrate languages (feature 5). The fact that the process of relabeling is semantically driven explains why categories that do not have semantic content, such as structural --as opposed to semantic-- cases, and syntactic operators, cannot be relabeled. The data in (10) show that, while Fongbe has an overt genitive case--a structural case--, the Haitian corresponding case is covert or phonologically null.⁹

⁹ Brousseau and Lumsden (1992) argue that Fongbe *tɔ̀n* in (10) is the genitive – as

(10) *àsón* [*nyè tòn*] *éló ó lÉ*

FONGBE

crab me GEN DEM DEF PL

‘these / those crabs of mine’ (in question / that we know of)

krab [*mwen ø*] *sa a yo*

HAITIAN

crab me GEN DEM DEF PL

‘these / those crabs of mine’ (in question / that we know of)

(=(100) in Lefebvre 1994a)

The data in (11) show that, while Fongbe has an overt operator occurring in factive clauses (as well as in relative clauses) (Collins 1994), the Haitian corresponding grammatical element is covert or phonologically null.¹⁰

opposed to objective--case marker. Lumsden (1991) argues that the phonologically null case following the pronoun in the Haitian example in (10) is genitive as opposed to objective.

¹⁰ The fact that some categories cannot be relabeled, either because they lack semantic features, as in (10) and (11), or because there is no appropriate form in the superstrate language to provide a label for a substrate lexical entry, as will be seen in (15), may have led some scholars to believe that creole languages are simple (e.g. McWhorter 2001). In a paper entitled 'What you see is not always what you get: Apparent simplicity and hidden complexity in creole languages' (Lefebvre 2001a), I address this issue within the framework of the relabeling-based theory of creole genesis.

(11) *Wá dǽè Jan wá ɔ vívɪ nú nɔ̀ tɔ̀n.* FONGBE

arrive OP John arrive DET happy for mother his

‘The fact that John has arrived makes his mother happy.’(=(21) in Lefebvre 1994b)

Rive ø Jan rive a, fè manman li kontan. HAITIAN

arrive OP John arrive DET make mother his happy

‘The fact that John has arrived makes his mother happy.’

(=(21) in Lefebvre 1994b)

Finally, relabeling explains why a number of superstrate lexical entries did not make their way into the creole. Recall from (3) and (4) that, in contrast to Haitian and Fongbe where BODY-parts are referred to by means of compounds, in French, BODY-parts are referred to by means of simplexes. These simplexes did not make their way into Haitian. Why? The creators of Haitian simply did not have BODY-part simplexes to relabel.

2.4. Two variables

In spite of the fact that relabeling may play a central role in creole genesis, there are no reported cases of creoles resulting entirely from the relabeling of substrate lexical entries on the basis of superstrate forms. The fact is that two variables may interfere with the output predicted by the relabeling-based theory of creole genesis. The first one has to do with the amount of exposure to the superstrate language when the creole is being formed. This variable has been shown to play a role in defining a creole as more or less acrolectal/basilectal. For example, creoles that most resemble their superstrate language were created in communities where speakers of the substrate languages had more access to the superstrate language speakers and creoles that are more like their substrate

languages come from communities where speakers had little access to the superstrate language speakers (e.g. Bickerton 1977:55; Baker and Corne 1982; Andersen 1983; Thomason and Kaufman 1991; Valdman 1978, 1993). For example, Valdman (1993) argues that Louisiana Creole is closer to French than Haitian is on the basis of the fact that the African population had more access to French in Louisiana than the African population had in Haiti, at the time these creoles were formed.

The second variable has to do with whether speakers of a developed creole still have access to the source languages of the creole. In this respect, there are four logical possibilities which are schematized in (12).

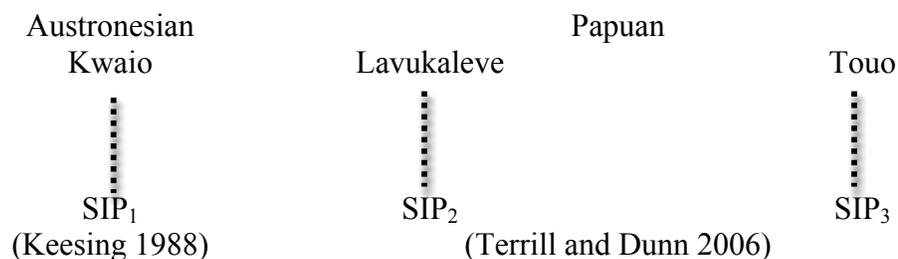
(12)	Access to substrate	Access to superstrate
	–	–
	–	+
	+	–
	+	+

The first two possibilities are exemplified by Haitian and Martinican creoles, respectively. According to Hilaire (1993), at the time of the Haitian revolution in 1791, African languages had ceased to be spoken in Haiti, and creole had taken over. From then on as well, French remained accessible to only a very small portion of the population, the elite. So, practically speaking, by the end of the eighteenth century, Haitian was cut off from both its source languages. The situation in Martinique is different. If Martinican creole was cut off from its African source, it never was cut off from its French source. Martinique remained a French colony. Moreover, in 1946, it became a French Overseas

Department. From then on, French became the only official language of the island, thus the language taught in schools, etc. According to Colot and Ludwig (2013), French has become the predominant language of the island. As a result, Martinican Creole is much closer to French than Haitian Creole is.

The third possibility is exemplified by Solomon Islands Pidgin (SIP), as spoken in the villages up until some forty years ago. In this case, people speak their native languages, Austronesian or Papuan, as well as SIP. While native languages are used in most activities of everyday life, the creole is used for communication between speakers of different native languages. This creates a situation where the substrate languages of the creole are still spoken daily, and thus may contribute to maintaining the substrate features in the creole. That this is so is convincingly shown by two studies of SIP based on speakers of different substrate languages: Keesing's (1988) study of SIP based on native speakers of Kwaio, an Austronesian language, and Terrill and Dunn's (2006) study of SIP based on native speakers of Lavukaleve and Touo, two Papuan languages. According to these authors, the creole speakers reproduce the semantic features of their native languages when speaking the creole. This situation is schematized in (13), where SIP₁, SIP₂ and SIP₃ can be viewed as 'dialects', so to speak, of SIP.

(13) Solomon Islands Pidgin



The fourth possibility may also be exemplified on the basis of SIP. But in this case, we consider speakers that have access to both the superstrate language of the creole, English, as well as to the substrate languages. As is extensively discussed in Jourdan (2008, 2009, 2014) this situation has been created through important migrations to the capital city Honiara, and through obligatory schooling in English. According to Jourdan, the SIP of these speakers is shifting towards a variety of the creole that is closer to English. Kriyol, a Portuguese-based creole spoken in Guinea-Bissau, replicates the situation described for SIP. According to Intumbo et al. (2013), there is a basilectal variety of Kriyol used by older speakers who live in rural areas, and a more acrolectal variety spoken by young urban people.

Thus, the amount of access, by creole speakers, to the source languages of their creole at different times in its genesis and development may play a role in maintaining (or not) the contribution of these languages to the creole. As such, access to the source languages constitutes a variable that may interfere with the output predicted by the relabeling-based theory of creole genesis. This explains the fact that, while some creole lexical entries correspond almost to perfection to the result of the process of relabeling, others appear to incorporate features of the superstrate language to varying degrees (feature 5).

2.5. Summary

The nature of the process of relabeling explains a number of features of the history and structure of creole languages. Two variables may interfere with the output predicted by the relabeling-based theory of creole genesis: the amount of exposure to the superstrate

language when the creole is being formed, and whether speakers of a developed creole still have access to the source languages of the creole.

As will be seen in the next section, the way relabeling operates accounts yet for another subset of features of the history and structure of creoles.

3. The way relabeling operates and the account of features of the history and structure of creoles

This section addresses the issue of how relabeling operates. Section 3.1 shows that relabeling is constrained by the superstrate language. Section 3.2 discusses the relabeling of functional categories. Section 3.3 documents the interaction between relabeling and how word order is established in creole genesis. It is shown that the way relabeling operates provides an explanation for yet another subset of features of the history and structure of creoles.

3.1. Relabeling is constrained by the superstrate language

A first point related to how relabeling operates in creole genesis has to do with the fact that relabeling proceeds on the basis of superstrate forms. Relabeling is thus constrained by what the superstrate language has to offer as an appropriate form to relabel a substrate lexical entry (Lefebvre and Lumsden 1994a). The constraining role of the superstrate language is illustrated on the basis of two sets of data. The first one involves the semantics of verbs of cutting. These verbs exemplify the situation where the substrate languages lexically encode semantic distinctions that are not necessarily encoded in the superstrate language. As can be seen in (14), Fongbe has several verbs of cutting encoding manner.

(14) Verbs of cutting in Fongbe

<i>sɛ gàn</i>	‘cut iron’	FONGBE
<i>mà kwikwí</i>	‘cut (slice) banana’	
<i>vlɔ wò</i>	‘cut (separate) paste’	
<i>kàn làn</i>	‘cut meat’ (animal or human)	
<i>já làn</i>	‘cut meat (in pieces)’	
<i>gbò àtín</i>	‘cut tree’	
<i>kpá dà</i>	‘cut hair’	
<i>zè nàkí</i>	‘cut (chop) wood’	(=(54) in Lefebvre 1989: 335)

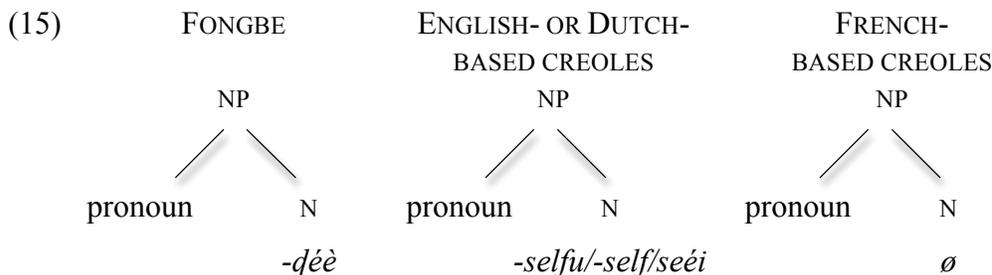
In Haitian Creole, all these verbs may be rendered by *koupe* [kupe] ‘to cut’, a general verb meaning ‘to cut’ (< French *couper* [kupe] ‘to cut’) (see also Valdman et al. 1981). The Haitian verb thus appears to lack the manner component of the Fongbe verbs of cutting. Within the relabeling-based theory of creole genesis, this situation follows from the fact that the superstrate language constrains relabeling. In French, the verb *couper* ‘to cut’ is a general verb for cutting, and it is possible to use it with all the objects of the Fongbe verbs in (6). It thus appears that several substrate verbs of cutting have been relabeled on the basis of a single superstrate form, in this case *couper* ‘to cut’ yielding Haitian *koupe*, a general verb meaning ‘to cut’ with no manner component. The fact that relabeling is constrained by the superstrate language thus explains why some creole lexical entries show discrepancies with respect to the closest substrate entries and may

appear to reproduce the semantic properties of the closest superstrate ones.¹¹ Essegbey and Ameka (2007), Essegbey (2015) and Muysken (2015:375) consider Sranan data of the type of the Haitian ones discussed above as counter-examples to the relabeling-based theory of creole genesis. In contrast, I take these data to follow from how relabeling operates. This requires taking into account the fact that the superstrate language imposes a constraint on the process of relabeling, and allowing for several semantically related substrate lexical entries to be relabeled on the basis of a single superstrate form (second part of feature 5).

Data pertaining to the –SELF anaphor in Caribbean creoles provide another type of example of the constraint imposed by the superstrate language on the process of relabeling. Consider the data in (15). Fongbe has a –SELF anaphor whose properties are similar to those of English –*self* (Kinyalolo 1994). English-based and Dutch-based Caribbean creoles have an overt –SELF anaphor phonologically derived from English –*self* and Dutch –*zelf*, respectively (e.g. Mufwene 1992; Robertson 1993; Veenstra 1996). By contrast, French-based Caribbean creoles, such as Haitian and Martinican, have a covert (or phonologically null) –SELF anaphor (see Lefebvre 1998 : 159-171). The reason why this lexical entry is covert in the latter creoles is due to the fact that French, the superstrate language of these two creoles, does not have a –SELF anaphor. Thus, in

¹¹ Similar data and analyses are reported on in Munro (2011) and in Koch (2011) on the basis of data involving semantic cases in Australian creoles.

contrast to English-based Caribbean creoles, in French-based Caribbean creoles, the substrate lexical entry could not be relabeled. Hence, it remained covert.



In addition to showing that relabeling is constrained by the superstrate language, the example in (15) shows that creoles that share the same pool of substrate languages but that have different superstrate languages may present differences that reflect differences between their superstrate languages.

3.2. The relabeling of functional categories

A second point related to the way relabeling operates in creole genesis concerns the relabeling of functional categories. The creators of a creole generally do not identify the functional categories of the superstrate language. (For an elaborate discussion of this point, see Lefebvre (1998: 17-8, 109, 123, 129, 142, 156, 180, 375-86)). For example, the French pre-nominal determiner was not identified as such by the creators of Haitian, as evidenced by the fact that it is often found as part of Haitian simple nouns such as *larivyè* 'river' (<Fr. *la rivière* 'the river', Lefebvre 1998:81). There is a twofold explanation for this situation. First, functional categories often appear as clitics on a noun or a verb. As such, they are unstressed which makes them difficult to identify. Second, the creators of a creole may have rather limited access to the superstrate language, a fact which makes it even more difficult for them to identify the functional categories of the superstrate

language. As a consequence, the relabeling of the substrate functional categories does not generally proceed on the basis of the superstrate functional forms. Rather, it proceeds on the basis of free forms (Lefebvre and Lumsden 1989; Mufwene 1990). The latter are generally stressed, thus easier to identify. For example, in Haitian, the Gbe post-nominal definite determiner has been relabeled on the basis of a French post-nominal deictic form *là*, yielding the Haitian post-nominal definite determiner *la* (and allomorphs), e.g. *liv la* 'the book (in question)' (Lefebvre 1998:78-84) (See also section 3.3).

The relabeling of functional categories on the basis of free forms is best exemplified on the basis of a creole having agglutinative substrate languages. Kriol, an Australian creole, is such a language. Its substrate consists of some hundred aboriginal agglutinative languages. Munro (2004, 2011) shows in detail how the substrate functional categories that are realized as affixes have been relabeled on the basis of English free forms. For example, she shows that person prefixes of the substrate languages have been relabeled on the basis of English personal pronouns, and that tense affixes have been relabeled on the basis of English auxiliaries. This is illustrated in (16) where Kriol free forms, derived from English free forms, correspond to affixes in Ngalakgan, one of the aboriginal substrate languages of Kriol.

(16) Tense, mood and aspect in Kriol and substrate languages (from Munro 2004)

<i>Gu-jandah</i>	<i>Ø-marninyh-mi-ti-tji-ny.</i>	NGALAKGAN
NC-stick	3sg-make- aux -RCP-PP	
'He made himself into a stick'		(Merlan 1983: 104-105)

<i>Main</i>	<i>mamai</i>	<i>bin</i>	<i>oldei</i>	<i>gemp</i>	<i>langa</i>	<i>gemp.</i>	KRIOL
POSS	mother	PST	CONT	live/stay	G/L	camp	
‘My mum stayed (slept) at camp.’							(AO58)

The fact that the relabeling of functional categories proceeds on the basis of free forms in the superstrate languages explains why creoles tend to be typologically isolating languages (feature 6).

3.3. Relabeling and word order in creole genesis

Since word order in creoles does not systematically reflect that of either of their contributing languages, the question of how word order is established in creole genesis has long been a standing problem in the field. (For an overview of this issue, see e.g. Lefebvre and Lambert (2015: 138-143). The relabeling-based theory of creole genesis makes it possible to derive the word orders of creoles from the way relabeling operates in creole genesis, and more precisely, from the way a superstrate form is identified as a suitable form to relabel a substrate lexical entry. Lefebvre and Lambert (2015: 145) have a twofold proposal stated in (17).

- (17)a. Relabeling may be linguistically context-bound, in which case it triggers the superstrate word order, and this word order appears in the creole.
- b. Relabeling may be linguistically context-free, in which case relabeled lexical items associate with substrate structures, and the substrate word order appears in the creole.

The difference between the two situations lies in the facts that, in the first case, a linguistic context is required for a superstrate form to be identified as a suitable form to

relabel a substrate lexical entry, whereas, in the second case, there is no such requirement. An example of a linguistically context-bound case of relabeling is provided by the definite determiners. Indeed, a superstrate form has to occur in combination with a noun in order to be identified as an appropriate form to relabel a determiner. The relabeling of determiners is therefore linguistically context-bound. The pertinent data are summarized in (18) and (19) for Haitian and Saramaccan, respectively. As was mentioned in section 3.2, the French pronominal definite determiners were not identified as such by the creators of Haitian (Lefebvre 1998: 78, 9). Instead, the postnominal deictic form *là* was identified as a suitable form to relabel the substrate postnominal definite determiner. Since the order of linguistically context-bound relabeled morphemes is determined by that of the form that is the target of the label, and, since the form that was selected from French is postnominal, the position of the definite determiner in Haitian is postnominal, as is shown in (18).¹²

¹² If the Haitian definite determiner does not follow the position of the French definite determiners, it could be argued to follow the order of the French pronominal deictic as in *celui-là* 'that one'. This cannot be the correct analysis for the position of the Haitian determiner, however, since *là* in *celui-là* was not identified as such by the creators of Haitian. Rather, it was perceived as part of the word [s□ila] which became *sila* in Haitian creole (see (27)). See also Lefebvre (1998: 89-101).

(18)		N	DEF		<i>wèmá</i>	<i>ś</i>	FONGBE
	DEF	N		<i>là</i>	<i>le livre</i>	<i>là</i>	FRENCH
		N	DEF		<i>liv</i>	<i>la</i>	HAITIAN

(=(12a) in Lefebvre and Lambert 2015)

For Saramaccan, Smith (1987) also argues that the English prenominal definite determiner *the* was not identified as such by the creators of this creole. He proposes that the Fongbe postnominal determiner was relabelled on the basis of the English prenominal deictic form *this*, yielding the prenominal definite determiner *disi*, eventually truncated to *di*, as is shown in (19).

(19)		N	DEF		<i>wèmá</i>	<i>ś</i>	FONGBE
	<i>this</i>	N		<i>thi</i>	<i>book</i>		ENGLISH
	DEF	N		<i>disi > di</i>	<i>buku</i>		SARAMACCAN

(=(12b) in Lefebvre and Lambert 2015)

An example of linguistically context-free case of relabeling is provided by deictic/demonstrative forms in Haitian and source languages. The data and analysis are summarized from Lefebvre (1998: 89-101; 2004: 92-94) and from Lefebvre and Lambert (2015). Consider the nominal structures in (20).

(20)		N	DEM	DEF	PL		FONGBE
		N	DEM	DEF	PL		HAITIAN
	$\left. \begin{array}{l} \text{DEF.PL} \\ \text{DEM.PL} \end{array} \right\}$	N.PL					FRENCH

(=(18) in Lefebvre and Lambert 2015)

As can be seen in (20), demonstrative determiners are postnominal in Haitian, as they are in Fongbe. By contrast, they are prenominal in French. In both Haitian and Fongbe, demonstrative determiners may co-occur with the definite determiner and the plural marker. By contrast, in French, demonstrative determiners are mutually exclusive with definite determiners. Like definite determiners, however, they bear gender and number morphology. The similarities and differences between the three languages are illustrated in (21).

- (21) a. *àsón* *é/ó/éné* *ó* *lé* FONGBE
- b. *krab* *sa/sila* *a* *yo* HAITIAN
- crab* DEM DEF PL
- c. *les//ces* *crabes* FRENCH
- DEF//DEM.PL crab.PL
- ‘the//these/those crabs’

(=(20) in Lefebvre and Lambert 2015)

The two Fongbe demonstrative terms that occur in the nominal structure in (21)a, *é/ó* and *éné*, may be assigned three patterns of interpretation depending on the speaker, as is shown in (22) (where G₁=Grammar₁, and so on and so forth).

(22)G ₁	<i>éló</i>	[+ proximate]	<i>éné</i>	[- proximate]	FONGBE
G ₂	<i>éló</i>	[α proximate]	<i>éné</i>	[-proximate]	
G ₃	<i>éló</i>	[α proximate]	<i>éné</i>	[α proximate]	

Sources: G₁: Anonymous (1983), Segurola (1963) and my own fieldnotes. G₂: Lefebvre (1997). G₃: My own fieldnotes.

(=(82b) in Lefebvre 2004: 94)

Likewise, the two Haitian demonstrative terms that occur in the nominal structure above, *sa* and *silá*, may be assigned three patterns of interpretation depending on the speaker, as is shown in (23).

(23) G ₁	<i>sa</i>	[+ proximate]	<i>silá</i>	[- proximate]	HAITIAN
G ₂	<i>sa</i>	[α proximate]	<i>silá</i>	[-proximate]	
G ₃	<i>sa</i>	[α proximate]	<i>silá</i>	[α proximate]	

Sources: G₁: Goodman (1964: 51), Tinelli (1970: 28). G₂: Lefebvre (1997) [see also data in Étienne (1974) and in Sylvain (1936)]. G₃: Férère (1974: 103), Joseph (1988), Valdman (1978: 194), Valdman et al. (1981) and my own fieldnotes.

The Haitian patterns of interpretation in (23) parallel those found for Fongbe (see (22)).

Furthermore, both Fongbe *éló* and *éné* may occur in isolation, that is, without a noun, possibly simultaneously with pointing, as is shown in (24) where the glosses correspond to G₁ grammar.

- (24) a. *éí* / *éné* FONGBE
 DEM / DEM
 ‘this / that’
- b. *Éné* *ó*, *wé* *zón* ... FONGBE
 DEM TOP it.is command
 ‘That, it is what causes...’ (Segurola and Rassinoux 2000)
- c. *Éné* *wá* *yì* FONGBE
 DEM come go
 ‘That has passed.’ (Segurola and Rassinoux 2000)
 (= (21) in Lefebvre and Lambert 2015)

Similarly, both Haitian *sa* and *sila* may occur in isolation, that is, without a noun, possibly simultaneously with pointing, as is shown in (25) where the glosses correspond to G₃ grammar.

- (25) a. *sa* / *sila* HAITIAN
 DEM DEM
- b. *sa/sila* *a*, *m'* *vle* HAITIAN
 DEM DEF 1SG want
 ‘This/that, I want.’
- c. *M* *wè* *sa* / *sila* *a* HAITIAN
 1SG see DEM DEM DEF
 ‘I saw this/that.’ (= (4) in Lefebvre 1997)

In Lefebvre (1998: 89-101) it is argued that the Fongbe deictic terms were not relabeled on the basis of the French deictic pronominal forms occurring in the structure in (20) (these forms are *ce, ces, cet, cette(s)*), but rather on the basis of French demonstrative pronominal forms that may occur in isolation, again possibly simultaneously with pointing, as in (26).

- (26) a. *ça / cela / celui-là* FRENCH
 ‘that / that / that one’
- b. *Ça / cela / celui-là, je le veux.* FRENCH
 that / that / that one, 1SG 3SG want
 ‘That/that one, I want it.’
- c. *Je veux ça / cela / celui-là.* FRENCH
 1SG want that / that / that one
 ‘I want that one.’ (= (22) in Lefebvre and Lambert 2015)

The relabeling analysis of the two Fongbe forms on the basis of French forms is summarized in (27). Note that [sɥila] is the abbreviated form of [səlɥila].

(27)	FONGBE	FRENCH	HAITIAN
	<i>éló</i>	<i>ça</i> [sa]	<i>sa</i>
	<i>éné</i>	<i>cela</i> [səla]/ <i>celui-là</i> [sɥila]	<i>silá</i>

The relabeling of two linguistically context-free substrate lexical entries on the basis of two linguistically context-free superstrate forms, yielded two Haitian lexical items that could occur free of a linguistic context, possibly simultaneously with pointing. Since

these two lexical entries were relabeled free of a linguistic context, they had to be associated with the position of demonstrative terms in the substrate nominal structure in (20) in order to be used in the Haitian nominal structure, thus yielding the Haitian nominal structure in (20).

Another problem related to establishing word order in creole genesis consists of the presence of postpositions in some Caribbean creoles. While Gbe languages have postpositions, the superstrate languages of Caribbean creoles have prepositions. All Caribbean creoles have prepositions following the word order of their superstrate languages. Saramaccan, however, also has postpositions. How can this word order be accounted for? Like in the substrate languages, these postpositions are also nouns (e.g. *liba* 'sky, on, above'; (*h*)*edi* 'head, top'). Lefebvre and Lambert (2015:154-159) propose that the substrate lexical entries that served both as nouns and as postpositions were relabeled from their nominal function on the basis of superstrate denotational nouns that could be identified in isolation. As a result of relabeling, the creole lexical entries so derived could also serve as postpositions.¹³

With respect to word order, there is yet another situation. In specific cases, relabeling can either be linguistically context-bound or linguistically context-free. This situation is exemplified by numerals. Numerals may occur with nouns e.g. *two books*, in which case their relabeling is linguistically context-bound. They may also occur in

¹³ Yakpo and Bruyn (2015: 135) consider structures containing a postposition as cases of 'pattern relexification'.

isolation e.g. *one, two, three*, etc. in which case their relabeling is linguistically context-free. The proposal in (17) predicts that there should be two possible word orders for numerals in creoles. In the first case, a substrate numeral relabeled in the context of a noun should trigger the superstrate word order in the creole. In the second case, a substrate numeral relabeled free of a linguistic context should associate with the position of numerals in the substrate nominal structure. Both predictions are borne out. For example, Haitian has prenominal numerals following the word order of its superstrate rather than that of its substrate suggesting that, in this case, numerals have been relabeled from a linguistically context-bound position. By contrast, Fa d'Ambô has postnominal numerals following the word order of its substrate languages (N NUM), rather than that of its Portuguese superstrate (NUM N) (Post 2013), suggesting that, in this case, numerals have been relabeled from a linguistically context-free position.

So, the way the relabeling of individual lexical items proceeds, either linguistically context-bound or linguistically context-free, determines whether a creole lexical item will have the word order of its corresponding superstrate or substrate lexical item. This accounts for the position of individual lexical items with respect to the head noun of the construction (feature 8). Lefebvre and Lambert (2015) discuss several other cases that illustrate the proposal in (17), such as the derivation of the order of modifiers and nouns, quantifiers and nouns, adpositions and nouns, etc. They also discuss potential counter-examples to this proposal. They conclude that their proposal does indeed predict correctly the word orders of a creole.

What about the relative order of functional categories within subsystems of the grammar? In addressing this question, I discuss one major subsystem of the grammar: the nominal structure. Consider the order of functional categories in the Haitian and Fongbe nominal structures in (28).

- (28) *krab* [*mwen* \emptyset] *sa* *a* *yo* HAITIAN
àsón [*nyè* *tòn*] *éí* *ó* *lé* FONGBE
 crab me GEN DEM DEF PL
 'these/those crabs of mine (in question/that we know of)'

(=(1) in Lefebvre 1998: 78)

In both languages, all the determiners--the possessor, the demonstrative, the definite determiner and the plural marker-- may cooccur within the same nominal structure and they appear in the same order. This contrasts with the French nominal structure where the definite, the possessive and the demonstrative determiners cannot cooccur. As is shown in (29), in French these determiners are mutually exclusive, in the plural, as well as in the singular.

- (29) a. **le mon ce crabe* FRENCH
 DEF POSS DEM crab
 b. *le/ mon / ce crabe* FRENCH
 'the/ my / this crab' (=(2) in Lefebvre 1998a: 78)

In view of this distribution, my proposal is that, after relabeling one by one the functional categories of their own lexicon, the creators of a creole fall back on the structure of their native grammar in order to establish the relative order of categories within the subsystems

of the grammar in the creole. This is congruent with the fact that, as was mentioned earlier, they do not have access to this information in the superstrate language. This proposal is further supported by data from the Saramaccan nominal structure. In (30), the definite determiner is pre-nominal as per the word order proposal in (17) (see (19)). But, the other functional categories of the nominal structure follow the order of the substrate:

N POSS DEM.

(30) *dí físi u mi akí* SARAMACCAN
 DEF fish of 1SG DEM

‘this fish of mine’ (Lefebvre’s field notes)

The relative order of functional categories in the structure of the clause (e.g. the Tense, Mood and Aspect system) follows the same pattern as that described for the nominal structure. (For a detailed analysis of these facts on the basis of Haitian, see Lefebvre 1996). Why should it be this way? Since the relabeling of functional categories operates on the basis of superstrate free forms, and since the speakers of the substrate languages do not have access to the superstrate language internal organization of the nominal or clausal structures because they do not have enough and sustained access to the language (see section 3.2), they have to rely on their native language structures in order to assign the relative position of functional categories within the nominal and clausal structures (feature 8).

3.4. Summary

The way relabeling proceeds explains a number of features of the history and structure of creoles. Because relabeling proceeds on the basis of the superstrate language, it is

constrained by this language. The relabeling-based theory of creole genesis thus accounts for the fact that some creole lexical entries may show discrepancies with respect to the closest substrate ones and may reproduce the semantic properties of the closest superstrate ones (the second part of feature 5). It also accounts for the fact that some substrate lexical entries may not be able to undergo relabeling due to lack of a suitable form in the superstrate language. It also accounts for the fact that creoles that share the same substrate languages but that have different superstrate languages may manifest differences that reflect distinctions between their superstrate languages. Because the relabeling of functional categories operates on the basis of free forms, the relabeling-based theory of creole genesis explains why creoles tend to be isolating languages (feature 6). Because relabeling is either linguistically context-bound or context-free, and because, in the first case, relabeling triggers the superstrate word order, while in the second case it triggers the substrate word order, the word orders of creoles are derivable from the relabeling-based theory of creole genesis in a principled way (feature 8).

As will be seen in the next section, the way relabeling interacts with other processes in the further development of a creole accounts yet for another subset of features of the history and structure of creoles.

4. The interaction of relabeling with other processes in the development of a creole and the account of features of the history and structure of creoles

The relabeling-based theory of creole genesis and development states that, by its very nature, relabeling cannot be the only process in creole development (Lefebvre and Lumsden 1994a; Lumsden and Lefebvre 1994). Other processes, that play a role in language change in general, also play a role in the development of creoles. Below, I limit

the discussion to three of these processes: grammaticalization, leveling and diffusion across the lexicon. In the context of the development of a creole, these processes are shown to interact with relabeling. Recall from the introduction that while relabeling takes place when the early creole community is targeting the superstrate language, the other processes apply on the output of relabeling, that is, on the relabeled lexicons. The relationship between relabeling and these processes accounts for a number of facts that cannot be explained otherwise.

4.1. Grammaticalization

Grammaticalization is a process by which a form that is the phonological representation of a lexical category becomes the phonological representation of a functional category (e.g. Heine and Reh, 1984:96; Hopper and Traugott, 1993:2). The process of grammaticalization applies in the development of a creole in the same way it does in language change in general. The originality of the proposal in Lumsden and Lefebvre (1994), however, lies in the fact that, in developing creoles, grammaticalization is hypothesized to provide a label for a substrate lexical entry that could not be relabeled, either because the substrate lexical entry had no semantic content (see (10) and (11)), or because there was no appropriate form in the superstrate language to relabel a substrate lexical entry (see (15)). In the incipient creole, such lexical entries are covert, that is, they have features but no labels. A covert lexical entry may be signalled by a periphrastic expression. Through grammaticalization, the periphrastic expression may become the phonological representation of the functional category in question. When it does, it reveals the properties of the original substrate lexical entry.

grammaticalization of the Haitian presentential adverb *apre* ‘afterwards’ much along the same lines as that of Sankoff’s for Tok Pisin *bai(mbai)*. The sentence in (32) shows the use of *apre* as a pre-sentential adverb.

(32) *Aprè yo fin wè-l yo rekònte...* HAITIAN
 Afterwards they finish see-3rd they tell

‘After they had seen him, they told...’ (from Hall 1953:221)

From its presentential position, this adverb made its way to a position between the subject and the verb, as is shown in (33).

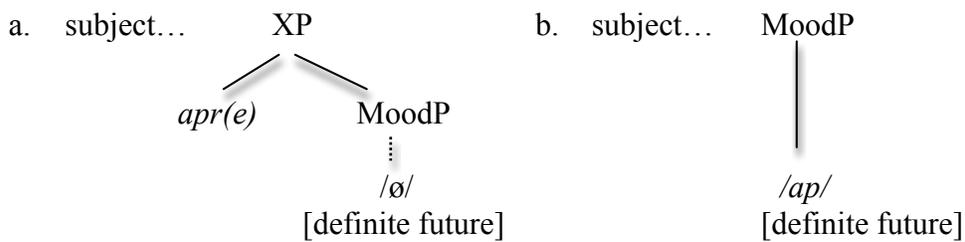
(33) *M’ ap vini* HAITIAN
 I FUT come

‘I will come’

In the process, it got reduced to *apr* and eventually to *ap*. From this position, it signaled a covert category of the Haitian Tense-Mood-Aspect system. When it became the phonological representation of this covert category, it revealed its properties, in this case, those of the definite future marker of the corresponding substrate lexical entry. The grammaticalization of Haitian *apre* is schematically represented in (34).¹⁴

¹⁴ The Haitian irrealis mood marker *ap* is homophonous with the imperfective aspect marker *ap*. In Lefebvre (1998: 119-129), it is shown that these two morphemes have different derivations.

(34) Presentential Haitian adverb *apre* 'aterwards' grammaticalized as a mood marker



(=(39) in Lefebvre 1998:128)

As is extensively documented in Lefebvre (1998:123-9), the Haitian irrealis marker *ap* has exactly the same semantic and syntactic properties as the substrate definite future marker in Fongbe. Furthermore, it combines with tense and aspect markers in the same way to form complex tenses. I thus take the data schematized in (31) and (34) to support the proposal that, in the further development of a creole, grammaticalization assigns a label to a functional category that could not be relabeled at the time when relabeling took place.

This situation presents us with a paradox that Sankoff (1991:73) formulates in the following way for Tok Pisin: "The ongoing changes in the Tense and Aspect system of Tok Pisin are making it more like the substrate languages in which tense is quite subsidiary to aspect. But this change is being led by young speakers who do not command substrate grammars, as their parents did and do". A similar statement can be made about the Haitian case. This paradox raises the following question: How do creole 'developers' identify the nature of the covert categories that they assign a label to through grammaticalization? According to Sankoff, the properties of covert categories are signaled by native speakers of the substrate languages speaking an early version of the creole: "What they did mark was aspect, a category more important than tense in the

grammars of the languages they spoke natively. There always has been a stronger relationship between the use of these markers for aspect than for tense in the speech of adults...". In this view, the Tok Pisin adult speakers were using *bai* to signal a covert category Aspect, as is represented in (31)a. This reasoning carries over to the Haitian data, though, in this case, it is the category Mood that the native speakers of the Gbe languages were signaling when using Haitian *apr*, as in (34).

The two cases of grammaticalization discussed in the text and illustrated in (31) and (34) constitute cases of grammaticalization that must have taken place in the early creoles. What happens in cases of grammaticalization taking place later in the development of creoles when native speakers of the substrate languages are no longer available? I hypothesize that, in this case, the nature of the covert categories within subsystems of creole grammars may be identified on the basis of the knowledge, by native creole speakers, of the subsystems of their grammar. In this case, a label would be assigned to a covert category that fills a hole in a given subsystem. For example, on the basis of the fact that tense is subsidiary to aspect in the TMA system of Tok Pisin, it is expected that grammaticalization will reveal the properties of a covert aspectual marker. Likewise, on the basis of the fact that aspect is subsidiary to mood in the TMA system of early Haitian, it is expected that grammaticalization will reveal the properties of a covert mood marker (see Lefebvre 1998, Chapter 5). Pending future research on such cases of grammaticalization, I do not discuss this issue any further.

The postulated link between relabeling and grammaticalization in the relabeling-based theory of creole genesis and development explains why, in their further

(e.g. Caribbean creoles). Conversely, the more disparate the substrate languages, the more important the role of leveling (e.g. Hawai'i Creole).

The process of leveling, as it occurs in the further development of a creole, is illustrated on the basis of data pertaining to the expression of plurality in French-based Caribbean creoles and their Gbe substrate. As is shown in (36), in Fongbe, the third person plural pronoun and the plural morpheme that occurs with nouns are rendered by two different forms. In Ewegbe, however, the same form encodes both meanings.

(36) The expression of plurality in two Gbe languages

		3 rd pers	plural morph
		pl pronoun	in DPs
FONGBE	two forms:	<i>yé</i>	<i>lé</i>
EWEGBE	one form:		<i>wó</i>

Within the framework of the relabeling-based theory of creole genesis, by hypothesis, these two patterns should have been reproduced in early Caribbean creole lexicons. This prediction is schematically represented in (37).

(37) Hypothesized early Caribbean creole lexicons

		3 rd pers	plural morph
		pl pronoun	in DPs
LEXICON _{CF}	two forms:	<i>X</i>	<i>Y</i>
LEXICON _{CE}	one form:		<i>X</i>

Interestingly enough, these two hypothesized lexicons are manifested in modern French-based Caribbean creoles. As can be seen in (38), while Martinican Creole has two separate forms encoding each function, on the model of Fongbe, Haitian has a single form encoding both functions, on the model of Ewegbe.

(38) Modern Caribbean creole languages

		3 rd pers	plural morph
		pl pronoun	in DPs
MARTINICAN	two forms:	<i>yo</i>	<i>se</i>
HAITIAN	one form:		<i>yo</i>

By hypothesis, these two hypothesized lexicons must have been present in the early creoles since both of them have the same pool of substrate languages. In leveling, speakers of Martinican Creole would have settled on the Fongbe pattern, whereas speakers of Haitian Creole would have settled on the Ewegbe pattern. Speakers of Saramaccan appear to have also settled on the Ewegbe pattern as the same form encodes both the 3rd person plural pronoun and the plural morpheme used in DPs (Aboh, Smith and Veenstra 2013; Lefebvre 2015b, Chapter 2).

The twofold proposal that leveling operates on the output of the various relabeled lexicons involved in the formation of a creole, and that, in the process, different communities may settle on different patterns (e.g. Martinican and Haitian), provides a principled explanation of the fact that some creole lexical entries may not have exactly the same properties as those of each corresponding lexical entries in the substrate languages (e.g. Haitian versus Fongbe; Martinican versus Ewegbe). Considering the fact

that the competition is not always won by speakers of the same substrate language (see also Siegel 1997), the above proposal also provides a principled explanation for the fact that several substrate languages may contribute features to a given creole, the famous Cafeteria Principle, first evoked by Dillard (1970) and later reintroduced by Bickerton (1981) (feature 6) (Lefebvre and Lumsden 1994a). While some authors (e.g. Siegel 1997) consider data of the type discussed in this section as counter-examples to relabeling, I analyze them as cases of relabeling followed by leveling.

4.3. Diffusion across the lexicon

Diffusion across the lexicon is a process that consists in the spreading of a feature of a small class of lexical items to a wider range of lexical items (see e.g. Bybee (2006), and the references cited therein). Like grammaticalization and leveling, I take this process to operate on the relabeled lexicons in the further development of a creole. I discuss this process on the basis of data pertaining to the double-object verbs occurring in the construction V NP NP, where the two NPs are Recipient and Theme, respectively, as in *John gave Mary a gift*, as opposed to the construction V NP PP, where the NP is a Theme and the PP a Goal, as in *John gave a gift to Mary*. (For an extensive discussion of these constructions, see Lefebvre 1994a). The data and analysis below are summarized from Lefebvre (2009).

Double-object verbs are available in the Gbe languages (Lefebvre 1994a). They are also available in Caribbean creoles (e.g. Haitian, Saramaccan and Papiamentu), regardless of whether they are available in the superstrate languages. For example, while English has double-object verbs, French, Spanish and Portuguese do not, but yet, Haitian,

Saramaccan and Papiamentu do have them. This suggests that the availability of double-object verbs in a creole is a feature that is inherited from the substrate languages (see below).

While the range of double-object verbs in Saramaccan is quite small, as in the Gbe languages (less than ten verbs), the range of such verbs in Haitian and Papiamentu is much larger. For example, Haitian has some twenty double-object verbs (Valdman et al. 1981; Védrine 1992), and Papiamentu has some forty five such verbs (Olguín 2006). There are thus several verbs in Haitian and Papiamentu whose properties depart from those of both their source languages. For example, the Haitian verb *di* 'to tell' is a Recipient-Theme verb (V NP NP). The corresponding French verb *dire* 'to tell' is not; it is a Theme-Goal verb involved in the V NP PP construction. The corresponding Fongbe verb *qɔ̀* 'to tell' takes a Theme as its direct object. Should a Goal need to be expressed, this participant is realized in a PP. In this case, however, the PP is not in an argument position of the verb but rather in a syntactic adjunct position, as is argued in Lefebvre and Brousseau (2002: 314-316). Sranan presents similar data that Essegbey (2015) considers to be counter-examples to the relabeling-based theory of creole genesis and development. Do these data really constitute counter-examples to the theory? If not, how do they fit within the framework of this theory? In Lefebvre (2009), I propose the following account.

First, the Gbe Recipient-Theme verbs were relabeled on the basis of French Theme-Goal verbs that shared some element of meaning with them. For example, the double-object Fongbe verb *ná* 'to give' was relabeled on the basis of the archaic non-

double-object French verb *bailler* 'to give' yielding the Haitian double-object verb *bay* 'to give'. The relabeling of a small number of V NP NP substrate verbs established the construction in the creole. Likewise, the Gbe Theme-(Goal) verbs were relabeled on the basis of French Theme-Goal verbs. For example, the verb *dɔ̃* 'to tell' was relabeled as *di* 'to tell', on the basis of French *dire* 'to tell' yielding the currently non-attested Haitian Theme (Goal) verb *di*. Second, the properties of the small set of Recipient-Theme verbs were diffused to a larger set of verbs such as *di*, a Recipient-Theme verb in contemporary Haitian. This explains the variation in the range of double-object verbs between Gbe and modern Haitian.

It could be hypothesized that "double object constructions in the French creoles may have been directly modelled on French imperative structures such as *donne-moi/lui cette vache-là* 'give me/him/her that cow' or even structures such as *donnes à Pierre ton cheval* 'give your horse to Peter', a type of Heavy-NP shift construction". In my view, it is quite unlikely that the creators of French-based creoles were ever exposed to the highly marked Heavy-NP shift construction illustrated above. It is possible, however, that the French imperative structures shown above contributed to establishing the double object construction in French-based creoles. In spite of this possibility, I believe that the scenario I propose, that is, relabeling followed by diffusion across the lexicon, provides a better explanation of the facts for the following basic reason. Michaelis and Haspelmath (2003) conducted a study of the Recipient-Theme construction on the basis of a sample of 250 languages. They showed that the Recipient-Theme construction is found only in those creoles whose substrate languages have the construction, regardless of whether

superstrate languages have it (contra Bruyn et al, 1999). It thus seems that the availability of the Recipient-Theme construction in creoles is attributable to the substrate rather than to the superstrate languages. This is accounted for by relabeling. This being the case, the discrepancy between the creole and its substrate languages in terms of the range of verbs participating in the construction is best explained by the process of diffusion across the lexicon.

So, here again, the postulated link between relabeling and a process that takes place in the further development of a creole, here, diffusion across the lexicon, explains the properties of creole lexical entries that do not follow only from relabeling, but rather, from relabeling followed by lexical diffusion. The twofold proposal according to which diffusion across the lexicon is a process that plays a role in the further development of a creole, as in other cases of linguistic change, and that this process applies on the output of the relabeled lexicons, provides a principled explanation of the fact that some creole verbs manifest properties that correspond neither to those of their substrate nor to those of their superstrate closest verbs (the third part of feature 5). I thus take the data pertaining to the double-object verbs in the Caribbean creoles to be consistent with the relabeling-based theory of creole genesis and development.

4.4. Summary

The postulated link between relabeling and the processes that apply in the further development of a creole explains a subset of features of the history and structure of creoles. The postulated link between relabeling and grammaticalization explains why, in their further development, creoles develop lexical entries that manifest the properties of

their substrate languages, even in situations where the substrate languages have ceased to be spoken (feature 10). The postulated link between relabeling and leveling provides a sound explanation of the fact that several substrate languages may contribute features to a creole (feature 6), as well as to the fact that the properties of some of a creole's lexical entries may depart from those of each corresponding lexical entries in the several substrate languages. Finally, the postulated link between relabeling and diffusion across the lexicon explains why, in some cases, creole lexical entries have properties that depart from both their sources (third part of feature 5). The documentation of how these processes operate further supports the claim that they apply to the output of relabeling rather than at the same time as relabeling does.

5. Relabeling and the typological features of creoles

The problem of the typological classification of creoles has generated a large body of literature surveyed in Lefebvre (2015a: 223-225). The nature of relabeling, as schematized in (1) predicts the principled contribution of the substrate and superstrate languages to creole lexical entries: the lexical entries so formed will have the semantic and syntactic properties of the substrate languages, and labels derived from phonetic strings drawn from the superstrate language. Furthermore, the way the process operates (see (17)) specifies that, when relabeling is linguistically context-bound, it triggers the superstrate word order. Since most cases of relabeling are linguistically context-bound (e.g. determiners such as definite determiners and modifiers such as adjectives, quantifiers, etc.), relabeling predicts that the superstrate language will contribute the bulk of a creole's word orders. The relabeling-based theory of creole genesis thus makes it

possible to predict the typological contribution of the substrate and superstrate languages to a creole. While the substrate languages are expected to contribute the semantic and syntactic typological features to a creole, that is, features related to 'meaning' and 'function', the superstrate language is expected to contribute the labels and the bulk of word orders, that is, features related to the 'form'. The fact that the contribution of the source languages to a creole divides up the way it does, predicts the respective source of the typological features of a creole: the typological features of the superstrate language will be found in the 'form', that is, the labels and word orders, and the typological features of the substrate languages will be found in the 'meaning' and 'function', that is, in the semantics and syntax. The principled division of properties between a creole's two sources highlights the fact that, while the superstrate language's contributions to a creole are "visible," those of the substrate languages are "invisible," (Lefebvre, 2015a Chapter 7). This is probably why, historically, creoles have been classified with their superstrate languages, since labels and word orders are what one sees. But of course, this association is quite superficial. The progress achieved in creole studies over the last forty years has revealed the genuine contributions of substrate languages to creoles. The relabeling-based theory of creole genesis and development thus predicts in a precise way in which area of the grammar the substrate and superstrate languages will contribute their typological features to a creole. In light of these preliminary remarks, I now turn to the discussion of the source of the typological features of creoles. The lexicon, the syntax, word order and the isolating character of creole languages will be discussed in turn.

5.1. Typological features related to the lexicon

From a typological point of view, languages vary in terms of the features they lexically encode in a given paradigm. Pronominal systems constitute a case in point. Given relabeling, we expect a creole to reproduce the pronominal features of its substrate languages. This is borne out, as is illustrated by a comparison of the pronominal systems of two creoles, Kriol and Haitian, that have two typologically different substrate languages. As can be seen in (39), the pronominal system of Kriol distinguishes between first, second and third person, singular, dual and plural; furthermore, it distinguishes between first person plural inclusive and exclusive.

(39) The pronominal system of Kriol (adapted from Munro 2004:123)

	Singular	Dual	Plural
1	<i>ai/mi</i>		
2	<i>yu</i>	<i>yundubala</i>	<i>yumop</i>
3	<i>im</i>	<i>dubala</i>	<i>olabat</i>
1 inclusive		<i>yunmi</i>	<i>wi</i>
1 exclusive		<i>mindubala/</i> <i>minbala</i>	<i>melabat/mela</i>

This pronominal system reproduces the typological features of the substrate languages, some one hundred Australian Aboriginal languages, whose pronominal system is schematically represented in (40).

(40) The pronominal system of Kriol's substrate languages (adapted from Munro 2004:121)

	Singular	Dual	Plural
1	√		
2	√	√	√
3	√	√	√
1 inclusive		√	√
1 exclusive		√	√

By contrast, the pronominal system of Haitian reproduces that of the Gbe languages. As is shown in (41), these two pronominal systems only distinguish between singular and plural, the latter category comprising only two forms, one for both first and second person, and the other for third person.

(41) The pronominal system of Haitian and Fongbe

HAITIAN		FONGBE
<i>mwen</i>	'I, me'	<i>nyè</i>
<i>ou/[wu]</i>	'you (sg)'	<i>hwè</i>
<i>li</i>	'he/she/it/him/her'	<i>é(yè)</i>
<i>nou</i>	'we/us/you (pl)'	<i>mí</i>
<i>yo</i>	'they/them'	<i>yé</i>

(Valdman et al. 1981;

(Brousseau 1995)

Fattier 1998, vol. 2: 850)

In a similar fashion, languages typologically vary with respect to the distinctions they lexically encode in their Tense, Mood and Aspect systems (TMA). In Lefebvre (ed.) (2011), TMA systems are documented for the following creoles: Surinamese (Migge 2011), Tayo (Sandeman 2011), Sri Lanka(n) Malay (Ansaldo 2011; Slomanson 2011), Kriyol (Kihm 2011), China Coast Pidgin (Ansaldo et al. 2011), Santiago Creole (Lang 2011), and Kriol (Munro 2011). All authors agree that the features of the TMA systems of these creoles replicate those of their respective substrates, such that the typological differences between them manifest the typological differences between their substrate languages.

Semantic case systems constitute yet another area of the lexicon where languages typologically vary. Here again creoles manifest the typological features of their substrate languages. For example, Ansaldo (2011) shows that the semantic case system of Sri Lanka Malay reproduces Sinhala's case system. Koch (2011) and Munro (2011) both show that the Australian creoles they study reproduce the semantic case inventories of their respective substrate languages. Likewise, languages that have postpositions typologically vary as to which semantic distinctions are lexically encoded by the postpositions. In this respect, both Migge (1998) and Essegbey (2005) show that the Surinamese creoles postpositions replicate the typological features of their Gbe substrate languages almost to perfection.

A large body of literature on the typological properties of creoles presents similar data (see e.g. Comrie 2011 on the global findings of APiCs; Lefebvre ed. 2011; Michaelis et al. eds. 2013).

5.2. Typological features related to the syntax

From a typological point of view, languages vary with respect to availability of specific syntactic constructions. Given the division of labor between substrate and superstrate languages in the formation of a creole, we expect the substrate to provide the typological features related to this area of the grammar. This is borne out, as is illustrated on the basis of the double-object construction, the serial verb construction, and the verb doubling constructions.

As was mentioned in section 4.3., the double object construction is found only in those creoles whose substrate languages manifest the construction, regardless of whether their superstrate language has it. For example, as we saw above, the construction is available in Caribbean French-based, Spanish-based and English-based creoles, on the model of their West African substrate languages, regardless of whether their superstrate has it. By contrast, the double object construction is not available in Tok Pisin (e.g. Smith and Siegel 2013; Michaelis et al. eds. 2013) because the Austronesian substrate languages of Tok Pisin do not manifest the construction, even though English, the superstrate language, does.

Likewise, the serial verb construction is found only in those creoles whose substrate languages manifest it. So, while the construction is available in creoles with a West African substrate (e.g. Caribbean creoles), and in creoles with an Asian substrate presenting the construction (see e.g. Jacob and Grimes 2011), it is not available in creoles that have an Australian Aborigine substrate (e.g. Kriol).

Another striking example illustrating this point consists of the cluster of four constructions involving verb doubling discussed in section 2.2 (see (7)-(9)). This cluster of constructions, modeled on West African languages, is found only in creoles that have a West African substrate. The fact that verb-doubling phenomena are available in Haitian Creole, Saramaccan, Papiamentu, and other Caribbean creoles such as Martinican Creole (Bernabé 1983), as well as in Cape Verdian of Santiago (Lang 2013), cannot be attributed to their superstrate languages (French, English, Spanish, Portuguese) since the latter do not manifest these constructions. The fact that Caribbean creoles and Cape Verdean do manifest verb-doubling phenomena has to be traced, however, to their common West African substrate languages, in which verb doubling is a typical typological feature. To the best of my knowledge, this cluster of four verb doubling constructions is not found in creoles spoken in Asia or in the Pacific.¹⁵

The three sets of data presented above illustrate the fact that creoles reproduce the typological syntactic features of their substrate languages.

¹⁵ Note that the four constructions involving verb doubling are not particularly 'transparent', as the meanings of the constructions are not directly accessible from the sequence of words in each of the constructions. This calls into question the proposal that creoles are semantically transparent (see e.g. Seuren and Wekker 1986; McWhorter 1998). This issue is extensively discussed in Lefebvre (2001b): 'On the semantic opacity of creole languages'.

5.3. Typological features related to word order

Languages typologically vary with respect to word order. Since the superstrate language contributes to the 'form' of a creole, which includes word order, the superstrate language is expected to contribute in a significant way to the typological features of a creole in this area of the grammar. This is indeed the case. The superstrate determines affixe-order (Lefebvre 2015a: 183) and word order in compounds (Brousseau 1989, 1994; Lefebvre 1998:339-342). As has been seen in section 3.3, relabeling is either linguistically context-bound or context-free. In the first case the superstrate word order is triggered, whereas in the second case, the substrate word order is triggered. Because most cases of relabeling are linguistically context-bound (e.g. modifiers --quantifiers, adjectives, adverbs--, and determiners --definite, indefinite, demonstrative, etc.), the superstrate determines most of the word orders of a creole.

The superstrate also appears to determine the order of constituents. For example, in Gbe nominal structures, possessive phrases may occur either pre- or post-nominally. In Haitian, the prenominal position is not available for possessive phrases, which can only occur in postnominal position. Lumsden (1991) proposed to account for this fact in the following way: in the formation of Haitian, the prenominal position for possessive phrases in the Gbe languages had to be abandoned because, in French, possessive phrases do not occur in this position but only postnominally. The loss of the Gbe OV word order in Caribbean creoles may also be explained in the same fashion (Lefebvre 2015a: 190-193). For example, although Gbe languages are essentially VO languages, in the context of nominalization, the object precedes the nominalized verb (OV). This word order is not

found in Haitian, presumably because it is not found in French. The OV order is not found in Saramaccan either. Veenstra (2015) analyzes this fact as a counter-example to the relabeling-based theory of creole genesis. In my view, this fact is consistent with this theory when constraints on word/constituent order imposed by the superstrate language are taken into account.

The strong input of the superstrate language into the typology of a creole's word order has syntactic ramifications. Indeed, in Lefebvre (2015a: 185-189), it is proposed that the creation of a large class of intransitive verbs in Caribbean creoles is derivable from the widespread superstrate SV word order. The argument goes as follows. Gbe tensed clauses are SVO. French, Spanish, Portuguese and English are also SVO. It therefore comes as no surprise that tensed clauses in Caribbean creoles clauses are also SVO. As is pointed out in Lefebvre (1998: 280-3; 2015a), however, there is a difference between basic word orders in the substrate and superstrate languages of these creoles: while the superstrate languages also manifest SV order, due to a large class of intransitive verbs, the Gbe substrate languages seldom show this combination. Indeed, these languages have very few, if any, intransitive verbs. This correlates with the fact that, in addition to having a relatively large class of genuine transitive verbs, that includes light verbs, they also have a large class of inherent and cognate object verbs. Assuming that an inherent or cognate object is a property of verbs, we would expect that, in relabeling, the Caribbean creole verbs would reproduce this property. However, this prediction is not borne out by the data, as Haitian, Saramaccan and Papiamentu all follow their respective superstrate languages in having a large class of intransitive verbs, and thus in manifesting

the superstrate SV word order. Note that object omission in these cases does not entail a change in meaning, since inherent and cognate object verbs are semantically autonomous. Unlike the objects of light verbs, their objects do not contribute to the meaning of the verb itself. In Lefebvre (1998: 280-3; 2015a: 186), it is proposed that the creation of a large class of intransitive verbs in the Caribbean creoles is linked to the availability of SV word order in the superstrate languages. While Aboh (2009: 333f), Essegbey (2015) and Muysken (2015) see the creation of a large class of intransitive verbs in Caribbean creoles as a counter-example to relabeling, I see it as following from the relabeling-based theory of creole genesis that takes into account the constraint imposed by the superstrate language on establishing word and constituent order in a creole.

So, with the exception of cases of linguistically context-free relabeling discussed in section 3.3., the typological features of creoles pertaining to word order are inherited from the superstrate languages.

5.4. The isolating typological feature of creole languages

As seen in section 3.2, the fact that the functional categories of a creole are generally relabeled on the basis of free forms, even in the case of agglutinative substrate languages, explains why creoles tend to be typologically isolating languages. There are a few reported cases, however, where creoles manifest relabeled bound morphology (e.g. Mufwene 1990; Ansaldo 2011). I leave the account of these cases for future research.

5.5. Summary

Within the relabeling-based theory of creole genesis and development, the substrate languages are expected to contribute to a creole features related to 'meaning' and

'function', that is semantic and syntactic features, whereas the superstrate language is expected to contribute features related to the 'form', that is, labels and word orders. These predictions are born out, as is illustrated by the data reported on in this section. Within the relabeling-based theory of creole genesis, source languages that are typologically distinct contribute different features to creoles. This prediction is borne out, as is illustrated by data drawn from creoles that have typologically different substrate languages. This conclusion runs counter to the claim by McWhorter (2001) according to which creoles of the world form a typological class. (For extensive discussions of this issue, see e.g. Lefebvre 2004 Ch. 8; Lefebvre ed. 2011; Michaelis et al. eds. 2013). This conclusion also runs counter to the claim by Bickerton (e.g. 1981, 1984) that creoles reflect the properties of Universal Grammar.

6. Conclusion

The sole aim of this paper has been to present the various components of the relabeling-based theory of creole genesis and development, and to show that the nature of the process, the way it operates in creole genesis and the way it interacts with other processes in the further development of a creole provide a principled account of how creoles come about and develop. In what follows, I summarise the content of this paper around two major themes. First, the present proposal has the properties of a theory: It is falsifiable and it makes predictions that are borne out. Second, it can account for all the features that characterize the history and structure of creoles listed in Table 1.

As was pointed out in section 1, a theory should be formulated in terms that are specific enough so as to be falsifiable. The nature of relabeling predicts hybrid creole

lexical entries drawing their semantic and syntactic properties from one language and labels from another language. The relabeling-based theory of creole genesis is falsifiable. If we were to find an arbitrary division of properties between a creole's lexical entries and those of its source languages, the hypothesis would have been falsified. The relabeling-based theory of creole genesis has not been falsified. First, a large body of data support it. In this respect, the Haitian lexicon has been extensively studied. Lefebvre (1998) systematically goes through the lexical entries involved in nominal and clause structure, those involved in the Tense, Mood and Aspect sub-system of the grammar, the various paradigms of pronouns, derivational affixes, compounds, and the syntactic properties of verbs. Lefebvre (1999) and Lumsden (1999) present the results of an extensive study of the properties of Haitian verbs. These studies extensively support the view that the bulk of the Haitian lexical entries have been created by the various components of the relabeling-based theory of creole genesis and development. A large body of data drawn from creole languages of all geographical areas of the world also supports the relabeling-based theory of creole genesis and development, though, as was mentioned in section 1, authors may use different terms to refer to the process that produce the data (see note 3). For example, data from the following languages, among others, are available: Ndjuka (e.g. Huttar, 1975; Migge, 1998, 2003, 2011); Sranan (e.g. Voorhoeve, 1973); Saramaccan (e.g. Aboh 2007; Smith 1987, 2001; Lefebvre 2012); Solomon Islands Pidgin (e.g. Keesing 1988; Terrill and Dunn 2006); creoles from all five continents (Lefebvre ed. 2011; Michaelis et al. eds. 2013). Second, since relabeling is semantically driven, the theory correctly predicts that lexical entries that have no semantic features

(e.g. structural case and syntactic operators, see section 2.3) are not able to undergo relabeling. Third, the bulk of the apparent counter-examples to this theory, involving the semantic properties of specific lexical items, argument structures of verbs, the creation of a large class of intransitive verbs, the range of double object verbs, some word orders, discussed throughout this paper, can be accounted for in a principled way when the components of how relabeling operates and how it interacts with other processes are taken into account (see below).

The way relabeling operates also makes a number of predictions. First, relabeling operates on the basis of the superstrate language. This correctly predicts that, in some cases, it might not be possible to find a new label for a subset of substrate lexical entries. As was shown in section 3.1, in such cases, two options are available to the creators of a creole. Several substrate lexical entries may be relabeled on the basis of a single superstrate form (see (14)), yielding a creole lexical entry that has lost the specific semantic properties of the substrate ones and that reproduces the semantic properties of the closest superstrate entry. Or, a given lexical entry may fail to be relabeled (see (15)), yielding a creole lexical entry that has features but no label. Second, as was shown in section 3.2, the relabeling of functional categories proceeds on the basis of superstrate free forms. This correctly predicts that creoles will tend to be isolating languages. Third, relabeling may be either linguistically context-bound or context-free. In the first case, it triggers the superstrate word order, while in the second case, it triggers the substrate word order. This correctly predicts the word orders observed in creoles.

The way relabeling interacts with other processes in the further development of a creole also makes a number of predictions. Recall from section 4.1 that in the relabeling-based theory of creole genesis and development, grammaticalization provides a label for a substrate lexical entry that could not be relabeled. The postulated link between relabeling and grammaticalization predicts correctly that, in their further development, creoles will develop lexical entries that manifest the properties of the corresponding ones in the substrate languages. Recall from section 4.2 that relabeling creates variation in the incipient creole that is of the same kind as dialectal variation within a given language, and that this variation may be leveled out with time by the process of leveling. In leveling, the competition is not always won by speakers of the same substrate language. This correctly predicts that a creole may manifest a variant of a specific substrate language and ignore the counterpart of this variant in another substrate language, and that several substrate languages may contribute features to a creole. Finally, the postulated link between relabeling and diffusion across the lexicon in section 4.3. correctly predicts that, in some cases, creole lexical entries will have properties that depart from both their sources.

The relabeling-based theory of creole genesis also makes it possible to predict the typological contribution of the substrate and superstrate languages to a creole (section 5). While the substrate languages are expected to contribute the semantic and syntactic typological features to a creole, that is, features related to 'meaning' and 'function', the superstrate language is expected to contribute the labels and the bulk of word orders, that is, features related to the 'form'. As was shown in section 5, this prediction is borne out.

The relabeling-based theory of creole genesis and development thus has the properties of a theory: it is falsifiable and it makes predictions that are borne out. Finally, because of the nature of the process of relabeling, the way it operates and the way it interacts with other processes, the relabeling-based theory of creole genesis and development provides an explanation for the features that characterize the history and structure of creole languages listed in Table 1. It explains why creoles only develop in multilingual communities that are in need of a *lingua franca* (features 1 and 2). It explains why creoles may develop in contexts where speakers of the substrate languages have relatively limited access to the superstrate language (feature 3). It explains the fact that the time frame of creole formation is quite rapid when compared with regular cases of linguistic change (feature 4). It explains the fact that creole lexicons derive their properties from those of their contributing languages in a principled way: while the forms of the creole lexical entries tend to be derived from the superstrate language, the semantic and syntactic properties of the lexical entries tend to be derived from the substrate languages. It also explains cases that may depart from this general tendency (feature 5). It also explains the fact that several substrate languages may contribute features to a creole (feature 6). It accounts for the fact that creole languages tend to be isolating languages (feature 7). It explains why creoles word orders generally reproduce those of their superstrate language and why they reflect those of their substrate languages in specific cases (feature 8). The theory also explains why, with the exception of the last two features, the typological properties of creole languages tend to reproduce those of their substrate languages (feature 9). Finally, the theory explains why, in their further

development, creoles develop lexical entries that manifest the properties of their substrate languages even in situations where the substrate languages have ceased to be spoken (feature 10). I thus conclude that the relabeling-based theory of creole genesis provides a principled explanation for all the features that characterize the history and structure of creole languages listed in Table 1. Whether it accounts for other properties that could be added to those in Table 1 as a result of further research remains a topic for further investigation.

Studies applying phylogenetics to creole data come to the conclusion that creoles stand somewhere (near the middle) between their substrate and superstrate languages in terms of linguistic distance (e.g. Muysken 2015: 407). What these studies do **not** show, however, is the fact that the properties of creoles divide in the way they do, that is, in a **principled** way, between their substrate and superstrate languages. This is just what the relabeling-based theory of creole genesis does.

References

- Aboh, Enoch O. 2007. La genèse de la périphérie gauche du Saramaka: Un cas d'influence du substrat. In *Grammaires créoles et grammaire comparative* [coll. Sciences du Langage], Karl Gadelli and Anne Zribi-Hertz (eds), 73-99. Paris: Presses Universitaires de Vincennes.
- Aboh, Enoch O. 2009. Competition and selection. That's all! In Aboh and Smith (eds), 317–344. *Complex Processes in New Languages* [Creole Language Library 35]. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Aboh, Enoch O., Norval Smith, and Tonjes Veenstra. 2013. Saramaccan. In Michaelis et al. (eds), volume 1: 27–39.
- Adam, Lucien. 1883. *Les idiomes négro-aryen et maléo-aryen*. Paris: Maisonneuve et Cie.
- Alleyne, Mervyn C. 1981. *Comparative Afro-American*. Ann Arbor. Karoma Publishers, Inc. 253 pages.
- Alleyne, Mervyn C. 1966. La nature du changement phonétique à la lumière du créole français d'Haïti. *Revue de linguistique romane* 30: 279–303.
- Andersen, Roger W. 1983. A language acquisition interpretation of pidginisation and creolisation. In Andersen (ed.), 1–59. *Pidginisation and Creolisation as Language Acquisition*. Rowley, MA: Newbury House.
- Anonymous. 1983. *Éléments de recherche sur la langue Fon*. Cotonou: [No indication of publisher].
- Ansaldo, Umberto. 2011. Sri Lanka Malay and its Lankan adstrates. In Lefebvre (ed.), 367–382.

- Ansaldo, Umberto, Stephen Matthews, and Geoff P. Smith. 2011. The Cantonese substrate in China Coast Pidgin. In Lefebvre (ed.), 289–301.
- Baker, Philip and Chris Corne. 1982. *Isle de France Creole*. Ann Arbor, MI: Karoma.
- Bao, Zhiming. 2005. The aspectual system of Singapore English and the systemic substratist explanation. *Journal of Linguistics* 41: 237–267.
- Bao, Zhiming. 2010. A usage-based approach to substratum transfer: the case of four unproductive features in Singapore English. *Language* 86.4: 798–821.
- Bernabé, Jean. 1983. *Fondal-Natal* [Grammaire basilectale approchée des créoles guadeloupéen et martiniquais 3]. Paris: L'Harmattan.
- Bickerton, Derek. 1977. Pidginisation and creolisation: Language acquisition and language universals. In Valdman (ed.), 49–69. *Pidgin and Creole Linguistics*. Bloomington/London: Indiana University Press.
- Bickerton, Derek. 1981. *Roots of Language*. Ann Arbor, MI: Karoma.
- Bickerton, Derek. 1984. The language bioprogram hypothesis. *The Behavioral and Brain Sciences* 7: 173–221.
- Brousseau, Anne-Marie. 1989. De 'nù-fló' à 'po-bouche': hypothèses sur l'origine des composés en haïtien. *La créolisation*. Special issue of the *Revue canadienne de linguistique* 34.3: 285–312.
- Brousseau, Anne-Marie. 1994. Morphological structure and relexification. In Lefebvre and Lumsden (eds), 30 pages.
- Brousseau, Anne-Marie. 1995. Les pronoms en créole haïtien, en français et en fongbé. In Lefebvre (ed.), volume IV, 33 pages. Research report prepared for FCAR on the project *L'organisation des lexiques et des entrées lexicales* [4 volumes]. Université du Québec à Montréal, Montreal.

- Brousseau, Anne-Marie. 2003. The accentual system of Haitian Creole: The role of transfer and markedness values. In Plag (ed.), 3–23. *The Phonology and Morphology of Creole Languages*. Tübingen: Niemeyer.
- Brousseau, Anne-Marie. 2011. One substrate, two creoles: The development of segmental inventories in St. Lucian and Haitian. In Lefebvre (ed.), 105–125.
- Brousseau, Anne-Marie and John S. Lumsden. 1992. Nominal structure in Fongbe. *Journal of West African Languages* 22: 5–26.
- Brousseau, Anne-Marie and Emmanuel Nikiema. 2006. From Gbe to Haitian: The multi-stage evolution of syllable structure. In Lefebvre, White and Jourdan (eds), 295–330.
- Bruyn, Adrienne. 2003. Grammaticalisation, réanalyse et influence substratique: quelques cas du sranan. In Kriegel (ed.), 25–48. *Grammaticalisation et réanalyse. Approches de la variation créole et française*. Paris: CNRS.
- Bruyn, Adrienne, Pieter C. Muysken, and Maaïke Verrips. 1999. Double object constructions in the Creole Languages: Development and acquisition. In DeGraff (ed.), 329–373.
- Bybee, Joan. 2006. From usage to grammar: The mind's response to repetition. *Language* 82: 711–734.
- Collins, Chris. 1994. The factive construction in Kwa. *Travaux de recherche sur le créole haïtien* 23: 31–65 [UQAM].
- Capo, Hounkpati B.C. 1984. Elements of Ewe-Gen-Aja-Fon dialectology. In *Peuples du Golf du Bénin (Aja-Ewe)*, François de Medeiros (ed.): 167-78. Paris: Editions Karthala.

- Colot, Serge and Ralph Ludwig. 2013. Guadeloupean Creole and Martinican Creole. In Michaelis et al. (eds), volume 2: 205–220.
- Comrie, Bernard. 2011. Creoles and language typology. In Lefebvre (ed.), 599–613.
- Cowper, Elizabeth. 1995. English participle construction. *The Canadian Journal of Linguistics* 40.1: 1–38.
- DeGraff, Michel A.F. (ed.). 1999. *Language Creation and Language Change*. Cambridge, MA: The MIT Press.
- Dillard, Joey Lee. 1970. Principles in the history of American English: Paradox, verginity, and cafeteria. *Florida FL Reporter* 8: 32–33.
- Essegbey, James. 2005. The “basic locative construction” in Gbe languages and Surinamese creoles. *Journal of Pidgin and Creole Languages* 20.2: 229–267.
- Essegbey, James. 2015. Verb semantics and argument structure in the Gbe and Sranan. In Muysken and Smith (eds), 175–207.
- Essegbey, James and Félix K. Ameka. 2007. "Cut" and "break" verbs in Gbe and Sranan. *Journal of Pidgin and Creole Languages* 22.1: 37–55.
- Étienne, Gérard. 1974. Le créole du nord d'Haïti: Étude des niveaux de structure. Doctoral dissertation, Université des sciences humaines de Strasbourg, Strasbourg.
- Fattier, Dominique. 1998. Contribution à l'étude de la genèse d'un créole: l'Atlas linguistique d'Haïti, cartes et commentaires [volume 2]. Thèse à la carte. ANRT (Atelier national de reproduction des thèses). 6 volumes.
- Férère, Gérard A. 1974. Haitian Creole sound-system, form-classes, texts. Doctoral dissertation, University of Pennsylvania, Philadelphia.

- Foley, William A. 1988. Language birth: The processes of pidginisation and creolisation. In Newmeyer (ed.), 162–183. *Language: The Socio-Cultural Context* [Linguistics: The Cambridge Survey 4]. Cambridge: Cambridge University Press.
- Furetière, Antoine. 1984. *Le dictionnaire universel d'Antoine Furetière* [3 volumes]. Paris: Le Robert.
- Goodman, Morris F. 1964. *A Comparative Study of Creole French Dialects*. The Hague: Mouton de Gruyter.
- Heine, Bernd and Reh, Mechthild. 1984. *Grammaticalization and reanalysis in African languages*. Hamburg: Helmut Buske Verlag.
- Hesseling, Dirk Christiaan. 1933. Een Spaans boek over het Papiaments. *TNTL* 52: 40–57; review of Rodolfo Lenz *El Papiamento, la lengua criolla de Curazao (la grammatica mas sencilla)*, *Anales de la Unive. de Chile, Seperatum* (Santiago, 1928).
- Hilaire, Jeannot. 1993. *Soubassements africains* [L'édifice créole en Haïti 2]. Fribourg, Switzerland: Edikreyol.
- Hill, Jane and Kenneth Hill. 1977. Language death and relexification in Tlaxcalan Nahuatl. *Journal of the Sociology of Language* 12: 55–69.
- Hopper, Paul J. and Traugott, Elizabeth C. 1993. *Grammaticalisation*. Cambridge University Press.
- Huttar, George L. 1975. Sources of creole semantic structures. *Language* 51: 684–695.
- Hymes, Dell. 1971. Introduction. In Hymes (ed.), 65–91.

- Hymes, Dell (ed.). 1971. *Pidginisation and creolisation of languages*. Cambridge: Cambridge University Press [Proceedings of a conference held at the University of West Indies, Mona, Jamaica, April 1968].
- Intumbo, Incanha, Liliana Inverno, and John Holm. 2013. Guinea-Bissau Kriyol. In Michaelis et al. (eds), volume 2: 31–40.
- Jacob, June and Charles E. Grimes. 2011. Aspect and directionality in Kupang Malay serial verb constructions: Calquing on the grammars of substrate languages. In Lefebvre (ed.), 337–366.
- Johns, Alana. 1992. Deriving ergativity. *Linguistic Inquiry* 17: 587–622.
- Joseph, Frantz. 1988. La détermination nominale en créole haïtien. Doctoral dissertation, Université Paris VII (Denis Diderot), Paris.
- Jourdan, Christine. 2008. Language repertoires and the middle-class in the Solomon Islands. In Meyerhoff and Nagy (eds), 43–67. *Social Lives in Language: Sociolinguistics and Multilingual Speech Communities*. Amsterdam: John Benjamins,
- Jourdan, Christine. 2009. Bilingualism and creolization. In Selbach, van den Berg and Cardoso (eds), 245–256.
- Jourdan, Christine. 2014. Pijin and shifting language ideologies in Solomon Islands. *Language in Society* (with Johanne Angeli) 43.3: 265–285.
- Kearns, Lucie. 2008. Papiamentu data base. Research report 2008, 2009, CRSH. Université du Québec à Montréal, Montreal.
- Keesing, Roger M. 1988. *Melanesian Pidgin and the Oceanic Substrate*. Stanford, CA: Stanford University Press.

- Kihm, Alain. 2011. Substrate influences in Kriyol: Guinea-Bissau and Casamance Portuguese-related Creole. In Lefebvre (ed.), 81–103.
- Kinyalolo, Kasangati K.W. 1994. Pronouns and relexification. In Lefebvre and Lumsden (eds), volume III, 259–293.
- Koch, Harold. 2000. The role of Australian Aboriginal languages in the formation of Australian Pidgin grammar: Transitive verbs and adjectives. In Siegel (ed.), 13–46. *Processes of language contact. Studies from Australia and the South Pacific* [Collection Champs linguistiques]. Montreal: Fides.
- Koch, Harold. 2011. The influence of Arandic languages on Central Australian Aboriginal English. In Lefebvre (ed.), 437–460.
- Lang, Jürgen. 2011. A Wolof trace in the verbal system of the Portuguese Creole of Santiago Island (Cape Verde). In Lefebvre (ed.), 61–80.
- Lang, Jürgen. 2013. Cape Verdean Creole of Santiago. In Michaelis et al. (eds), volume 2: 3–12.
- Lefebvre, Claire. 1989. Instrumental *Take* serial constructions in Haitian and in Fon. *La créolisation*. Special issue of the *Revue canadienne de linguistique* 34.3: 319–339.
- Lefebvre, Claire. 1994a. New facts from Fongbe on the double object constructions. *Lingua* 94.2-3: 69–123.
- Lefebvre, Claire. 1994b. On spelling out E. *Travaux de recherche sur le créole haïtien* 23: 1–33 [UQAM].
- Lefebvre, Claire. 1994c. Functional categories in relexification. In Lefebvre, C. and J. Lumsden. 1994b.

- Lefebvre, Claire. 1996. The tense, mood and aspect system of Haitian Creole and the problem of transmission of grammar in creole genesis. *Journal of Pidgin and Creole Languages*. 11: 231-313.
- Lefebvre, Claire. 1997. Relexification in creole genesis: The case of demonstrative terms in Haitian Creole. *Journal of Pidgin and Creole Languages* 12.1: 181–203.
- Lefebvre, Claire. 1998. *Creole genesis and the acquisition of grammar: The case of Haitian Creole* [Cambridge Studies in Linguistics 88]. Cambridge: Cambridge University Press.
- Lefebvre, Claire. 1999. Substratum semantics in the verbal lexicon of Haitian Creole. *Studies in Language* 23.1: 61–103.
- Lefebvre, Claire. 2001a. What you see is not always what you get: Apparent simplicity and hidden complexity in creole languages. *Linguistic Typology* 5.2-3: 186–213.
- Lefebvre, Claire. 2001b. On the semantic opacity of creole languages (Column). *Journal of Pidgin and Creole Languages* 16.2: 321–353.
- Lefebvre, Claire. 2004. *Issues in the study of pidgin and creole languages*. Amsterdam/Philadelphia: John Benjamins. 350 pages.
- Lefebvre, Claire. 2009. A note on lexical diffusion in the development of creoles: The case of double-object verbs. In Selback, van den Berg and Cardoso (eds), 101–113.
- Lefebvre, Claire (ed.). 2011. *Creoles, their substrates, and language typology* [Typological Studies in Language 95]. Amsterdam: John Benjamins.

- Lefebvre, Claire. 2012. A comparison of the nominal structure of Saramaccan, Fongbe and English with reference to Haitian Creole: Implications for a relabeling-based account of creole genesis. *Lingua* 129: 32-66.
- Lefebvre, Claire. 2015a. *Relabelling in Language Genesis*. Oxford University Press. 300 pages.
- Lefebvre, Claire. 2015b. *Functional Categories in three Atlantic Creoles and in their Source Languages*. John Benjamins. 386 pages.
- Lefebvre, Claire and Anne-Marie Brousseau. 2002. *The Structure of Fongbe* [Mouton Grammar Library 25]. Berlin/New York: Mouton de Gruyter.
- Lefebvre, Claire and Renée Lambert. 2015. Relabeling and word order: A construction grammar perspective. In Lefebvre 2015a, 139–164.
- Lefebvre, Claire and John S. Lumsden. 1989. Les langues créoles et la théorie linguistique. *La créolisation*. Special issue of the *Revue canadienne de linguistique* 34.3: 249–272.
- Lefebvre, Claire and John S. Lumsden. 1994a. Relexification in creole genesis. In Lefebvre and Lumsden (eds), 28 pages.
- Lefebvre, Claire and John S. Lumsden (eds). 1994b. *The central role of relexification in creole genesis: The case of Haitian Creole*. Research report prepared for SSHRCC on the project “La genèse du créole haïtien: un cas particulier d’investigation sur la forme de la grammaire universelle” [3 volumes]. Université du Québec à Montréal, Montreal.
- Lefebvre, Claire, Lydia White, and Christine Jourdan (eds). 2006. *L2 Acquisition and Creole Genesis. Dialogues* [Language Acquisition and Language Disorders 42]. Amsterdam: John Benjamins Publishing Company.

- Lumsden, John S. 1991. On the acquisition of nominal structures in the genesis of Haitian Creole. *Travaux de recherche sur le créole haïtien* 4: 37–61 [UQAM].
- Lumsden, John S. 1999. Language acquisition and creolization. In DeGraff (ed.), 129–157.
- Lumsden, John S. and Claire Lefebvre. 1994. The genesis of Haitian Creole. In Lefebvre and Lumsden (eds).
- Maurer, Philippe. 1988. *Les modifications temporelles et modales du verbe dans le papiamentu de Curaçao (Antilles néerlandaises)*. Hamburg, Kreolische Bibliothek: Helmut Buske Verlag.
- McWhorter, John H. 1998. Identifying the creole prototype: Vindicating a typological class. *Language* 74: 788–818.
- McWhorter, John H. 2001. The world's simplest grammars are creole grammars. *Linguistic Typology* 5: 125–166.
- Merlan, Francesca. 1983. *Ngalakgan grammar, texts and vocabulary*. Canberra: Pacific Linguistics B/89.
- Michaelis, Susanne and Martin Haspelmath. 2003. Ditransitive constructions: Creole languages in a cross-linguistic perspective. *Creolica* 2003-04-23. Online journal: www.creolica.net.
- Michaelis, Susanne, Philippe Maurer, Martin Haspelmath, and Magnus Huber (eds). 2013. *Survey of Pidgin and Creole Languages*. Volume 1: English-based and Dutch-based languages. Volume 2: Portuguese-based, Spanish-based, and French-based languages. Oxford: Oxford University Press.

- Migge, Bettina M. 1998. Substrate influence in the formation of the Surinamese Plantation Creole: A consideration of sociohistorical data and linguistic data from Ndyuka and Gbe. Doctoral dissertation, Ohio State University, Columbus.
- Migge, Bettina M. 2003. *Creole Formation as Language Contact: The Case of the Suriname Creoles* [Creole Language Library 25]. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Migge, Bettina M. 2011. Assessing the nature and role of substrate influence in the formation and development of the creoles of Suriname. In Lefebvre (ed.), 155–179.
- Mufwene, Salikoko S. 1986. The universalist and substrate hypotheses complement one another. In Muysken and Smith (eds), 129–162.
- Mufwene, Salikoko S. 1990. Transfer and the substrate hypothesis in creolistics. *Studies in Second Language Acquisition* 12.1: 1–23.
- Mufwene, Salikoko S. 1992. Africanisms in Gullah: A re-examination of the issues. In Hall, Doane and Ringler (eds), 156–182. *Old English and New: Studies in language and linguistics in honor of Frederic G. Cassidy*. New York: Garland.
- Mühlhäusler, Peter. 1986. *Pidgin and Creole Linguistics* [Language in Society II]. Oxford: Basil Blackwell.
- Munro, Jennifer. 2004. Substrate language influence in Kriol: The application of transfer constraints to language contact in Northern Australia. Doctoral Dissertation, University of New England, Armidale, NSW.
- Munro, Jennifer. 2011. Roper River Aboriginal language features in Australian Kriol: Considering semantic categories. In Lefebvre (ed.), 461–487.

- Muysken, Pieter C. 1981. Half-way between Quechua and Spanish: The case for relexification. In Highfield and Valdman (eds), 52–79. *Historicity and Variation in Creole Studies*. Ann Arbor: Karoma.
- Muysken, Pieter C. 2015. Conclusion: feature distribution in the West African-Surinam Trans-Atlantic Sprachbund. In Muysken and Smith (eds), 393–409.
- Muysken, Pieter C. and Norval Smith (eds). 1986. *Substrata versus Universals in Creole Genesis* [Creole Language Library 1]. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Muysken, Pieter C. and Norval Smith (eds). 2015. *Surviving the Middle Passage* [Trends in Linguistics, Studies and Monographs 275]. Berlin: Mouton De Gruyter. 531 pages.
- Olgúin, Maribel. 2006. Analyse comparative des propriétés lexicales de dix classes de verbes en papiamentu et en espagnol. Master's Thesis, Université du Québec à Montréal, Montreal.
- Plag, Ingo. 2008. Creoles as interlanguages: Inflectional morphology. *Journal of Pidgin and Creole Languages* 23.1: 114–135.
- Post, Marike. 2013. Fa d'Ambô. In Michaelis et al. (eds), volume 2: 81–89.
- Rassinoux, Jean. 1987. *Dictionnaire français-fon*. Cotonou: Imprimerie Dumas.
- Rawley, J.A. 1981. *The transatlantic slave trade. A history*. New York and London: W.W. Norton & Company.
- Robertson, Ian. 1993. The Ijo element in Berbice Dutch and the pidginisation/creolisation process. In Mufwene (ed.), 296–316. *Africanisms in Afro-American language varieties*. Athens, GA, and London: The University of Georgia Press.

- Sandeman, Barbara. 2011. "On traduit la langue en français": Substrate influence in the TMA system of Tayo. In Lefebvre (ed.), 575–595.
- Sankoff, Gillian. 1990. The grammaticalisation of tense and aspect in Tok Pisin and Sranan. *Language Variation and Change* 2: 295–312.
- Sankoff, Gillian. 1991. Using the future to explain the past. In Byrne and Huebner (eds), 61–74. *Development and Structures of Creole Languages* [Creole Language Library 10]. Amsterdam: John Benjamins.
- Schumann, Christian L. 1978. *The Pidginisation Process: A Model for Second Language Acquisition*. Rowley MA: Newbury House.
- Schwartz, Bonnie D. and Rex A. Sprouse. 1996. L2 cognitive states and the full transfer/full access model. *Second Language Research* 12.1: 40–72.
- Segurola, R.P.B. 1963. *Dictionnaire fon-français*. Cotonou: Procure de l'Archidiocèse.
- Segurola, Basilio and Jean Rassinoux. 2000. *Dictionnaire fon-français*. Cotonou: Société des missions africaines.
- Selbach, Rachel, Margo van den Berg, and Hugo Cardoso (eds). 2009. *Gradual Creolization. Studies celebrating Jacques Arends*. Amsterdam: John Benjamins.
- Seuren, Pieter and Herman Wekker. 1986. Semantic transparency as a factor in creole genesis. In Muysken and Smith (eds), 57–71.
- Siegel, Jeff. 1997. Mixing, levelling and pidgin/creole development. In Spears and Winford (eds), 111–149. *The structure and status of Pidgins and Creoles* [Creole Language Library 19]. Amsterdam/Philadelphia: John Benjamins Publishing Company.

- Siegel, Jeff. 2008. *The Emergence of Pidgin and Creole Languages*. Oxford: Oxford University Press.
- Singler, John V. 1988. The homogeneity of the substrate as a factor in pidgin/creole genesis. *Language* 64: 27–51.
- Singler, John V. 1993. The African presence in Caribbean French colonies in the seventeenth century: Documentary evidence. *Travaux de recherche sur le créole haïtien* 16-17: 1–236 [UQAM].
- Singler, John V. 1996. Theories of creole genesis, sociohistorical considerations, and the evaluation of evidence: The case of Haitian Creole and the relexification hypothesis. *Journal of Pidgin and Creole languages* 11.1: 185–231.
- Slomanson, Peter. 2011. Dravidian features in the Sri Lankan Malay verb. In Lefebvre (ed.), 383–409.
- Smith, Geoff P. and Jeff Siegel. 2013. Tok Pisin. In Michaelis et al. (eds), volume 1: 214–223.
- Smith, Norval. 1987. *The Genesis of the Creole Languages of Surinam*. Ph.D. Dissertation. University of Amsterdam.
- Smith, Norval. 2001. Voodoo Chili: Differential substrate effects in Saramaccan and Haitian. In *Creolisation and contact* [Creole Language Library 23]. N. Smith and T. Veenstra (eds.): 43-81. Amsterdam. John Benjamins.
- Sprouse, Rex A. 2006. Full transfer and relexification: Second language acquisition and creole genesis. In Lefebvre, White and Jourdan (eds), 169–182.
- Steele, Jeffrey and Anne-Marie Brousseau. 2006. Parallels in process: Comparing Haitian Creole and French Learner Phonologies. In Lefebvre, White and Jourdan (eds), 331–355.

- Sylvain, Suzanne. 1936. *Le créole haïtien: morphologie et syntaxe*. Wetteren, Belgium: Imprimerie De Meester/Port-au-Prince: By the author.
- Terrill, Angela and Michael Dunn. 2006. Semantic transference: Two preliminary case studies from the Solomon Islands. In Lefebvre, White and Jourdan (eds), 67–86.
- Thomason, Sarah G. and Terrence Kaufman. 1991. *Language Contact, Creolisation, and Genetic Linguistics*. Berkeley/Los Angeles/Oxford: University of California Press.
- Tinelli, Henri. 1970. Generative phonology of Haitian Creole. Doctoral dissertation, University of Michigan, Ann Arbor.
- Trudgill, Peter. 1986. *Dialects in Contact* [Language in Society 10]. Oxford: Basil Blackwell.
- Valdman, Albert. 1978. *Le créole: structure, statut et origine*. Paris: Klincksieck.
- Valdman, Albert. 1980. Creolization and second language acquisition. In Valdman and Highfield (eds.): 297-311.
- Valdman, Albert. 1993. Matrice et diffusion culturelle dans le développement des créoles français. Paper read at the *Université du Québec à Montréal*.
- Valdman, Albert and Arthur Highfield (eds.). 1980. *Theoretical Orientations in Creole Studies*. New York. Academic Press.
- Valdman, Albert et al. 1981. *Haitian Creole-English-French Dictionary* [2 volumes]. Bloomington: Indiana University, Creole Institute.
- Van den Berg, Henk. 1987. A brief note on predicate cleft in Saramaccan. In Alleyne (ed.), 103–111. *Studies in Saramaccan Language Structure* [Caribbean Culture Series 2]. Amsterdam: Universiteit von Amsterdam.

- van Name, Addison. 1869-70. Contribution to creole grammar. *Transactions of the American Philological Association, 1869-70*: 123–167.
- Védrine, Emmanuel W. 1992. *Dictionary of Haitian Creole Verbs (with phrases and idioms)*. Cambridge, MA: Soup to Nuts Publishers.
- Veenstra, Tonjes. 1996. *Serial Verbs in Saramaccan: Predication and Creole Genesis*. Dordrecht: Holland Institute of Generative Linguistics.
- Veenstra, Tonjes. 2015. Relexification and clause embedding predicates. In Muysken and Smith (eds), 369–393.
- Voorhoeve, Jan. 1973. Historical and linguistic evidence in favor of the relexification theory in the formation of creoles. *Language in Society* 2: 133–145.
- Whinnom, Keith. 1971. Linguistic hybridisation and the ‘special case’ of pidgins and creoles. In Hymes (ed.), 91–115.
- Yakpo, K. and Adrienne Bruyn. 2015. Trans-Atlantic patterns: the relexification of locative constructions in Sranan. In Muysken and Smith (eds), 135–175.

Table 1. Features of the history and structure of creole languages

- Feature 1: Creoles only develop in multilingual communities.
- Feature 2: These communities need a *lingua franca*.
- Feature 3: Substrate languages speakers have limited access to superstrate language.
- Feature 4: The time frame of creole formation is quite rapid when compared with cases of regular linguistic change.
- Feature 5: Creole lexicons derive their properties from those of their contributing languages in a principled way: labels < superstrate, and semantic and syntactic properties < substrate languages.
Some exceptions:
- cases where the semantics of creole lexical items follows that of the superstrate
 - cases where the properties of creole lexical items follow neither those of their substrate nor those of their superstrate.
- Feature 6: Several substrate languages may contribute features to a creole.
- Feature 7: Creoles tend to be isolating languages.
- Feature 8: Some creole word orders reproduce those of their superstrate language; some reproduce those of their substrate languages.
- Feature 9: The typological properties of creoles tend to reproduce those of
- their substrate languages for semantics and syntax
 - their superstrate language for word orders with some exceptions
 - none of their contributing languages for their isolating typological feature.
- Feature 10: In their further development, creoles develop lexical entries that manifest the properties of their substrate languages even in situations where the substrate languages have ceased to be spoken.