Chapter 3

The relexification account of creole genesis
The case of Haitian Creole[*]

This chapter consists of a summary of my book entitled *Creole Genesis and the Acquisition of Grammar: the Case of Haitian Creole* published by Cambridge University Press in 1998. This book summarises 25 years of funded research at UQAM[1] on the problem of creole genesis. It provides an account of the genesis of creole languages cast within the framework of the processes otherwise known to play a role in the formation of new languages and in language change in general. Three major processes are considered: relexification, reanalysis and dialect levelling. The idea that these processes play a role in creole genesis is not new. The contribution of our research has been to provide a clear statement of how the superstratum data are processed in relexification, of how relexification applies in the case of functional category lexical entries and derivational affixes, and of how word order is established in creole genesis. Furthermore, the contribution of our research has been to develop a theory of how these three processes interact in the formation and development of creole languages, and to document in detail their relative importance. Of these processes, relexification is basic as the two others are hypothesised to apply to the output of relexification. Relexification is also the central process in creole genesis as it accounts for the bulk of the properties of a radical creole's lexicon: creole lexical entries have phonological representations that are

derived from their superstratum languages, they have semantic and syntactic properties that are derived from their substratum languages (see e.g. Adam 1883: 47; Alleyne 1966, 1980; Goodman 1964; Huttar 1975: 684; Sylvain 1936: 178; Voorhoeve 1973; etc.). Reanalysis is much less important than has generally been assumed when creoles' substratum languages are taken into account. Dialect levelling is an important process, but more research needs to be done before a precise characterisation of its weight can be arrived at. The test of our account of creole genesis was based on an extensive and detailed study of Haitian Creole and of its contributing languages: French, its superstratum language, and Fongbe, one of its substratum languages. We were able to gather the resources needed to test this hypothesis from a global perspective. To my knowledge, this was the first time in the history of the field that such a large enterprise has been undertaken.

Section 3.1 presents the relexification hypothesis of creole genesis and section 3.2 the methodology developed for testing it. Section 3.3 summarises the data and conclusions of the extensive comparison of the lexicons of Haitian Creole and of its contributing languages. The conclusion to section 3.3 is that the bulk of the Haitian Creole lexicon has been created through relexification. Section 3.4 summarises the findings pertaining to parameter settings in the formation of Haitian Creole. It is shown that with one exception, Hatian Creole has the parametric values of its substratum languages. To a large extent, this is due to the fact that the functional category lexical entries of the substratum languages have been reproduced in the creole through relexification. Furthermore, in the one case where Haitian Creole does not have the parametric value of its substratum languages, it

does not have that of its superstratum language either. Section 3.4 concludes the chapter with a summary of the consequences of the findings. Appendix 2 provides an overview of the Haitian lexicon by class of lexemes with respect to origin. The phonemic inventories of Haitian, French and Fongbe, the correspondences between French phonetic matrices and Haitian phonological forms, as well as orthographic conventions can be found in Lefebvre (1998a: 398–403). Tones on Fongbe words are phonemic.
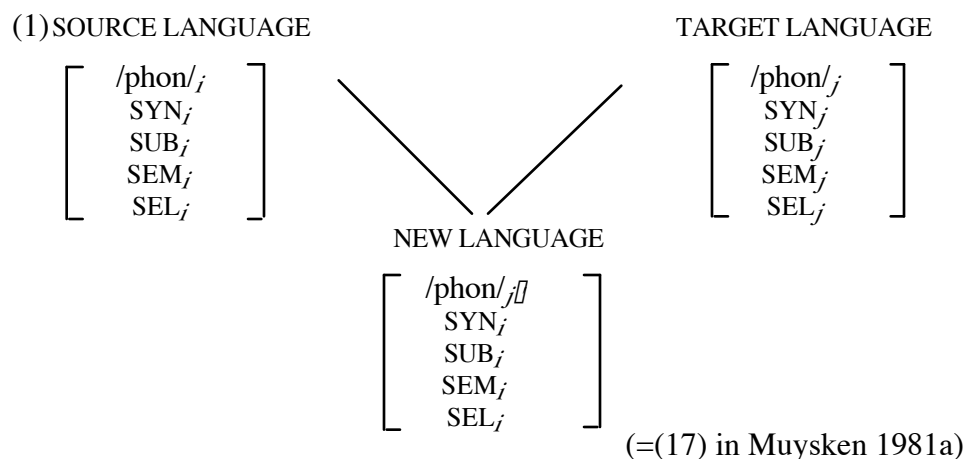
3.1.   The relexification hypothesis of creole genesis

The basic hypothesis set forth by this research is that the process of relexification plays a central role in the formation of pidgin and creole languages. Two other processes, reanalysis and dialect levelling, also play a role in the further development of the creole. This section begins with the definition of the cognitive process of relexification followed by the presentation of the relexification hypothesis of creole genesis. The interaction between relexification and the other two processes that play a role in the development of creoles is then presented. Our hypotheses on how functional categories get relexified and on how word order gets established in creolisation are then presented. The section ends with an evaluation of this account of creole genesis.

3.1.1. The process of relexification

The first formal definition of relexification was provided by Muysken (1981a:!61): "Given the concept of lexical entry, relexification can be defined as the process of vocabulary substitution in which the only
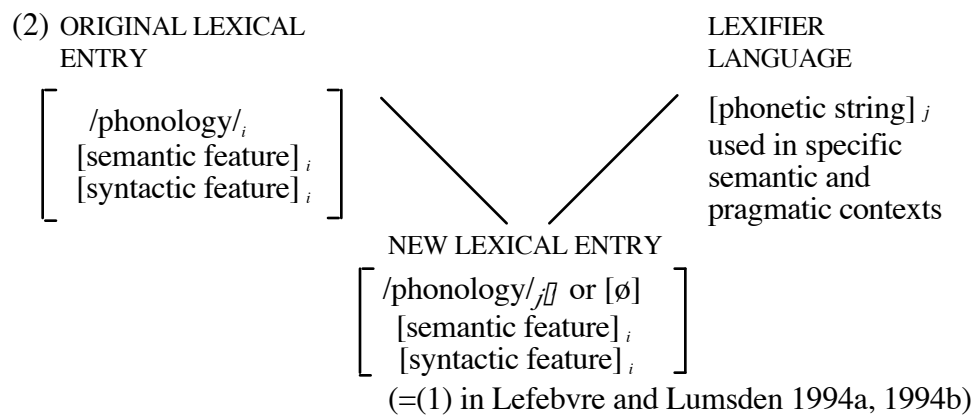
information adopted from the target language in the lexical entry is the phonological representation." Muysken's representation of the process is reproduced in (1).

(1) SOURCE LANGUAGE   TARGET LANGUAGE

$$\begin{bmatrix} /phon/_i \\ SYN_i \\ SUB_i \\ SEM_i \\ SEL_i \end{bmatrix} \qquad \qquad \begin{bmatrix} /phon/_j \\ SYN_j \\ SUB_j \\ SEM_j \\ SEL_j \end{bmatrix}$$

NEW LANGUAGE

$$\begin{bmatrix} /phon/_{j!'} \\ SYN_i \\ SUB_i \\ SEM_i \\ SEL_i \end{bmatrix}$$

(=(17) in Muysken 1981a)

As per the representation in (1), relexification is a mental process that builds new lexical entries by copying the lexical entries of an already established lexicon and replacing their phonological representations with representations derived from another language. Lefebvre and Lumsden (1994a, 1994b) refer to this second phase as relabelling. According to Muysken's (1981a:!62) proposal, relexification is semantically driven. "For relexification to occur, the semantic representations of source and target language entries must partially overlap; otherwise, the two entries would never be associated with each other. Other features of the two entries may, but need not, be associated with each other."

Muysken's representation of relexification was formulated on the basis of data drawn from mixed languages and more particularly on the basis of Media Lengua, a mixed language spoken in Ecuador. In contexts where mixed languages emerge, the speakers who relexify their lexicons are claimed to be bilingual, that is, to master both the source and the target

language (see e.g. the papers in Bakker and Mous (eds) 1994). In contrast, in situations where creole languages emerge, speakers of the source languages do not have adequate access to the phonological representation nor to the other properties of the lexical entries of the target language, in this case, the superstratum language. In order to accommodate the representation of the process to these situations, Lefebvre and Lumsden (1994a, 1994b) propose a slightly different representation of relexification reproduced in (2).

(2) ORIGINAL LEXICAL ENTRY   LEXIFIER LANGUAGE

$$
\begin{bmatrix}
\text{/phonology/}_i \\
\text{[semantic feature]}_i \\
\text{[syntactic feature]}_i
\end{bmatrix}
\qquad
\begin{array}{l}
\text{[phonetic string]}_j \\
\text{used in specific} \\
\text{semantic and} \\
\text{pragmatic contexts}
\end{array}
$$

NEW LEXICAL ENTRY

$$
\begin{bmatrix}
\text{/phonology/}_{jI'} \text{ or } [\emptyset] \\
\text{[semantic feature]}_i \\
\text{[syntactic feature]}_i
\end{bmatrix}
$$

(=(1) in Lefebvre and Lumsden 1994a, 1994b)

In the above representation, relabelling proceeds on the basis of *phonetic strings* found in the superstratum language rather than on the basis of the phonological representations of the lexifier lexical entries. This representation accommodates the numerous cases like that of Tok Pisin *baimbai* 'later' derived from the English expression *by and by* (Sankoff and Laberge 1973). Furthermore, the phonetic strings of the lexifier language are interpreted by the relexifiers on the basis of their own phonological system such that the phonological form of the new lexical entry is often quite different from the lexifier language form (Brousseau in preparation). Although the phonological system of a creole appears to be historically derivable from that of its substratum languages, the resulting system is still

distinct from the substratum systems. The lexical entry created by relexification in (2) thus has a phonological representation which differs from those of both of its source languages, a fact that is represented by *j'* identifying the phonological representation of the new lexical entry in (2). A second point of difference from Muysken's representation is that the lexifier language lexical entry in (2) is deprived of features (compare (1) and (2)). This is due to the fact that, in creole genesis, relexifiers do not have access to the feature of the target language lexical entry. For example, the Haitian verb *bezwen* 'to need' takes its phonological representation from the French noun *besoin* 'need'. However, Muysken's insistence on partial semantic overlap between the source and target lexical entries is preserved in the representation in (2) by specifying that the meaning of the phonetic string selected to relabel a copied lexical entry is deduced from its use in specific semantic and pragmatic contexts.

Relexification, as represented in (1) and (2), thus consists in copying the properties of a lexical entry and relabelling it. In Lefebvre (1998a), it is assumed that copying applies to all lexical entries and that it is relabelling which is semantically driven. Thus, only those functional categories which have some semantic content (e.g. determiners, demonstrative terms, etc.) may be assigned a new label during relexification. Those functional categories which have no semantic content (e.g. case markers, operators, etc.) are copied but not relabelled. They are assigned a phonologically null form at relabelling. This null form is represented as [ø] in (2). Lexical entries that have a phonologically null representation are not pronounced, nonetheless, they can be argued to be syntactically pertinent.

Mous (1995: 1) has yet another representation of the process that he refers to as paralexification. As Mous puts it: "Paralexification is the addition of a word form to a lexical entry. This added form is on par with the existing word form of the lexical entry in question. That is: two word forms share meaning, metaphorical extensions, and morphological properties such as noun class membership for nouns and predicate frame for verbs." Mous's definition of paralexification can be schematised as in (3), where a given lexical entry has two phonological representations and only one set of semantic and syntactic features.

(3)
$$\begin{bmatrix} /\text{phonology}/_i \ / \ /\text{phonology}/_{j!'} \\ [\text{semantic feature}]_i \\ [\text{syntactic feature}]_i \end{bmatrix}$$
(=(2) in Lefebvre 1998a: 384)

Paralexification and relexification may be viewed as two slightly different ways of representing the same cognitive process. Both representations describe a process which consists in creating a new phonological representation for an already established lexical entry. Both representations allow for the availability of both forms in the competence of speakers over (a certain period of) time. Indeed, based on the representation in (1) and (2), speakers have two parallel lexicons, the original one, and the one created by relexification, which they can use alternately. In the representation in (3), however, speakers have a single lexicon wherein each lexical entry has two phonological representations which can be used alternately. The representations in (1) and (2) can easily be recast within Mous's framework provided that paralexification is considered to be semantically driven, and that it allows for phonologically null forms. Under the representation in (3), relexification can be seen as the addition of a phonological representation to a given lexical entry and of the subsequent

loss of the original phonological representation yielding the representation in (4).

(4)

$$\begin{bmatrix} /\text{phonology}/_{j!'} \\ [\text{semantic feature}]_i \\ [\text{syntactic feature}]_i \end{bmatrix}$$

The representations in (3) and (4) have the advantage of abstracting the process of relexification away from the social context in which it occurs.

In spite of the differences between them, under all three representations, the lexical entries produced by relexification have the semantic and syntactic properties of those in the original lexicons; they differ from the original entries only in their phonological representations. (For further discussion on the representation of relexification, see Lefebvre 1998a: 15–19, 22, 27, 384–6).[2]

3.1.2. The relexification hypothesis of creole genesis

The hypothesis of our research[3] is that the creators of a creole language, adult native speakers of various languages, use the properties of their native lexicons, the parametric values and the semantic interpretation rules of their native grammars in creating a creole. The bulk of a creole's lexical entries is created by the process of relexification. Two other processes, fed by the output of relexification, dialect levelling and reanalysis, also play a role in the development of a creole (see below).

It is claimed that, in creole genesis, the process of relexification is used by speakers of the substratum languages as the main tool for acquiring a second language, the superstratum language. As is pointed out in Lefebvre and Lumsden (1994a), the relexification hypothesis of creole genesis is a further development of the second language acquisition theory of creole

genesis. For example, Alleyne (1971, 1980), Andersen (1980), Mufwene (1990), Schumann (1978), Thomason and Kaufman (1991), Valdman (1980), etc. have proposed that pidgin/creole languages constitute a crystallised incomplete stage of second language acquisition. Indeed, in our approach, it is claimed that, in creole genesis involving situations where there is limited access to the superstratum language, the process of relexification is used by speakers of the substratum languages as the main tool for acquiring the superstratum language (for further discussion, see Lefebvre 1998a: 9–12). As is pointed out in Lefebvre (1998a: 10), however, without relexification, the second language acquisition approach to creole genesis does not explain why creole languages have crystallised in the way they have. The relexification hypothesis does explain why creole lexicons reflect the properties of both their superstratum and substratum source languages in the way they do.

3.1.3. *The interplay of relexification, reanalysis and dialect levelling in creole genesis and development*

As was mentioned above, in addition to relexification, two other processes were hypothesised to be involved in the development of a creole: dialect levelling and reanalysis. Dialect levelling, as discussed in the literature on dialects in contact (e.g. Domingue 1980; Trudgill 1986; Siegel 1995), refers to the reduction of variation between dialects of the same language in situations where these dialects are brought together. Reanalysis, a major process in language change, is a mental process whereby a particular form which signals one lexical entry becomes the signal of another lexical entry (e.g. Lightfoot 1979). The content of this section summarises the interplay

of these three processes as they are embedded within the scenario of creole genesis developed in Lefebvre and Lumsden (1989, 1992, 1994a, 1994b) and in Lumsden and Lefebvre (1994).

In this scenario, relexification applies in creole genesis in the following way. Native speakers of various substratum languages are brought together. Crucially, the speakers of the substratum community do not have a common language, a situation which creates the need for a *lingua franca* not only to communicate with the colonisers but also to communicate among themselves. The substratum speakers are exposed to a superstratum language, the language of the colonists. However, they do not have enough exposure to this language to learn the details of its lexical entries. Due to this situation, speakers of the substratum languages relexify the lexical entries of their respective lexicons on the basis of phonetic strings found in the superstratum language (see (2)). The relexification of various lexicons on the basis of a single superstratum language provides the speakers of the substratum languages with a common vocabulary. As is pointed out in Lefebvre and Lumsden (1994a, 1994b), it is the limited direct access to the superstratum language that makes relexification so important in the formation of radical[4] creoles.

It is a well documented fact that in creoles, both functional category items as well as major category lexical entries have phonological representations that are similar to some phonetic strings of the superstratum language. These lexical entries, however, do not have the same properties as the corresponding superstratum forms from which they are phonologically derived (see e.g.!Carden and Stewart 1988; Lefebvre 1984; Lefebvre and Lumsden 1989, 1992; Mufwene 1991). In the scenario of creole genesis

reported on here, it is hypothesised that because speakers of the substratum languages have very limited access to the superstratum data, they typically fail to identify the functional categories of the superstratum language. These speakers thus try to relexify the functional items of their native languages on the basis of forms found in the superstratum language. It is proposed that the functional category lexical entries of the substratum languages are relexified on the basis of *major* category lexical items (e.g. nouns, adjectives, verbs, adverbs and prepositions) of the superstratum language with which they share some semantics and distributional properties (for further discussion, see Lefebvre 1998a: 35–41). For example, the postposed definite determiner of the substratum languages of Haitian Creole is argued to have been relexified on the basis of the postposed French adverb *là*, yielding Haitian *la* (see Lefebvre 1998a: 79–84, and section 3.3.4.1). The relexification of functional as well as major category lexical entries provides the speakers of the various substratum languages with a common vocabulary in all areas of the lexicon.

As we saw in section 3.1.1, relabelling is semantically driven, in the sense that there must be partial semantic overlap between the source and target lexical entries for it to take place. Consequently, relabelling is constrained by what the superstratum language has to offer in terms of appropriate strings to relexify original lexical entries. This is particularly crucial in the case of functional category items. It is thus possible that some lexical entries cannot be assigned a new phonological form because there is no form available in the superstratum language to provide a new phonological form for particular lexical entries. In this case, the new lexical entry is assigned a phonologically null form. As we saw above,

phonologically null lexical entries in the creole may also arise from the fact that the original lexical entry has no semantics (e.g. operators, case markers, etc.).

The lexicons created by relexification become the basis of a *lingua franca* within the creole community. When the relexified lexicons become the target of the creole community, a new language is born. At this point, the speakers are no longer targeting the superstratum language. They are now targeting the common language that they have developed through relexification: the incipient creole. At this stage, two other processes come into play: dialect levelling and reanalysis.

Relexification is a cognitive, hence an individual process. Situations where creoles emerge involve several substratum languages. Each individual relexifies his or her own lexicon. Speakers of various substratum languages reproduce the idiosyncratic semantic and syntactic properties of their own lexicons in relexification and thus, the product of relexification is not necessarily uniform across the creole community. For example, relexification of the lexicons of languages X, Y and Z on the basis of a single superstratum language will yield three slightly different lexicons in an incipient creole. This is schematically represented in (5).

(5)   Substratum lexicons   X   Y   Z   ...
                                         | | |
        Early creole lexicons   L1   L2   L3   ...

The relexification of several lexicons thus creates variation within a creole. In our scenario of creole genesis, dialect levelling is hypothesised to apply to the output of relexification in order to reduce the variation produced by the relexification of the various substratum lexicons. This scenario allows for a

sound explanation of the facts referred to in the literature on creole studies as the 'cafeteria principle'—a term used first by Dillard (1970) and later by Bickerton. As Bickerton (1981: 49) puts it: "As things stand, we are asked to believe that different African languages contributed different rules and features to particular creoles (…) it is (…) absurd to suppose that a creole could mix fragments of Yoruba, Akan, Igbo, Mandinka, and Wolof (…)." The proposal that dialect levelling operates on the output of the various relexified lexicons involved in creole formation provides a principled explanation of the observation that several different substratum languages may contribute features to a given creole. Plural forms, reflexive forms, demonstrative terms and the imperfective constructions, to name but a few, are cases in point. (See the data sections of this chapter and chapter 9; see also Lefebvre (1998a) for the discussion of more cases.) In the competition among different creole dialects (created by the relexification of different substratum lexicons), there are winners and losers. As is discussed in Lefebvre (1998a: 390–391), the competition is not always won by speakers of the same relexified lexicon (see also Siegel 1997).

An original lexical entry that was not assigned a label during relexification, either because it had no semantic content and thus could not be relabelled, or because there was no appropriate form in the superstratum language to relabel the copied lexical entry, may be signalled by a periphrastic expression. For example, a given tense or aspect may be signalled by an adverb with a similar meaning. The periphrastic expression may later become the phonological representation of the functional category in question through the process of reanalysis. A case in point in Haitian is the reanalysis of the sentence initial adverb of posteriority *apre* as the

marker of definite future *ap* (see section 3.3.5.1). This case is similar to the more renowned Tok Pisin case: the sentence initial adverb of posteriority *baimbai* reanalysed as the perverbal marker *bai* (see Sankoff 1991). In both cases, the lexical entry that has become overt through reanalysis has the properties of the corresponding lexical entries in the substratum languages since the creole lexical entry has been created by relexification, though without having been relabelled. The postulated link between relexification and reanalysis accounts in a straightforward way for the paradoxical situation noted in the literature according to which, in the course of their further development, creoles develop lexical entries that manifest the properties of their substratum languages even in situations where the substratum languages have ceased to be spoken (see e.g. Chaudenson 1994; Mufwene 1990; Mühlhäusler 1986a, 1986b; Sankoff 1991: 73). (For an extensive discussion of this point, see Lefebvre 1998a:!108–110, 375–386, and the references therein.) (Further discussions of dialect levelling and reanalysis and of their interaction with relexification in creole genesis may be found in Lefebvre 1998a: 41–47. See also chapter 9 of this book.)

3.1.4. Word order

The problem of how word order is established in creole genesis has been raised several times in the literature (e.g. Mühlhäusler 1986b:!47; Mufwene 1990:!5). Lefebvre and Lumsden (1992) make a twofold proposal. First, because the relexifiers intend to reproduce the phonetic strings of the superstratum language—an assumption that follows logically from the claim that creole genesis is a function of second language acquisition—and because they identify major category lexical items of the superstratum

language, they acquire the directionality properties of the superstratum major category lexical entries. Thus, the word order of major category lexical entries in the creole is predicted to follow the word order of lexical categories in the superstratum language. Consequently, if the superstratum language has prenominal adjectives, the creole will have prenominal adjectives. Likewise, creoles whose lexifier languages have prepositions but no postpositions are predicted to have only prepositions. Second, because they do not have enough access to the superstratum language, the creators of a radical creole do not identify the functional categories of that language. In Lefebvre and Lumsden (1992), it is hypothesised that the creators of the creole retain the directionality properties of the functional category lexical entries of their own lexicon in relexification. Consequently, the creole functional categories will have the same word order as the substratum entries that they were copied from. To a large extent, this proposal is borne out, as we will see in the data sections of this chapter (for further discussion, see Lefebvre 1998a: 38–40, 89, 180, 388–390).

3.1.5. *An optimal account of creole genesis*

The theory of creole genesis outlined in this section provides a straightforward and optimal account of the properties of creole languages. The following discussion builds on a preliminary one in Lefebvre and Lumsden (1989, 1994a).

First, by virtue of the definition of the process, creole lexical entries are predicted to have the same semantic and syntactic properties as the corresponding lexical entries in the substratum languages, but phonological representations derived from the phonetic strings of the superstratum

language. The hypothesis thus explains why creoles reflect the properties of both their superstratum and their substratum source languages in the way they do (e.g. Sylvain 1936; Goodman 1964; Huttar 1975; Keesing 1988; etc.). As was pointed out in Lefebvre and Lumsden (1989), the hypothesis that relexification plays a central role in creole genesis is falsifiable. If a comparison of the lexical properties of a radical creole with the lexical properties of its source languages were to show that the syntax and semantics of the creole are *not* systematically parallel to the syntax and semantics of the substratum languages, then the hypothesis would be falsified.

Likewise, the hypothesis that the creators of the creole use the parametric values, semantic interpretation rules and principles of concatenation of their own grammars in creating the creole explains why creoles coincide with their substratum languages in these areas of the grammar as well. Again, this hypothesis is falsifiable. If a comparison of the grammatical and semantic properties of a radical creole with those of its source languages were to show that the properties of the creole are *not* systematically parallel to those of the substratum languages, then the hypothesis would be falsified.

The second main point is that, given the multilingual situation prevailing in contexts where creoles emerge (e.g. Whinnom 1971), and given the urgent need for a *lingua franca* in such a situation (e.g. Hymes 1971; Foley 1988; Thomason and Kaufman 1991; etc.) and, furthermore, given the limited access to the superstratum language (e.g. Thomason and Kaufman 1991; Foley 1988; etc.), only one generation of speakers is required to form a new language by means of relexification and the use of the parametric

values and other principles of the native grammars. The claim that these processes are at work in creole genesis accounts for the fact that creole languages can be created relatively quickly as compared with regular cases of linguistic change (e.g. Voorhoeve 1973; Hancock 1987; etc.).

Finally, as is observed in Lefebvre and Lumsden (1994a), the fact that creoles are generally isolating languages can also be deduced from the above proposal. Since the minor category lexical entries of creole languages derive their phonological forms from major category lexical items in the superstratum language, or from reanalysis, and since these categories are typically free morphemes, it follows that creoles will tend to be isolating languages.

3.1.6. Summary

The account of creole genesis presented in this section can be reduced to three major processes that interact in a specific way: relexification, a central process in language genesis, and reanalysis and dialect levelling, which apply to the output of relexification. The following section discusses the methodology that was developed in order to test this hypothesis. The evaluation of the hypothesis against the data is presented in the remaining sections.

3.2. The test of the hypothesis

The hypothesis was tested using Haitian Creole. The research program involved two dimensions, historical and linguistic. These will be discussed in turn.

3.2.1. *The historical research*

The historical research was designed to answer the following questions: When was Haitian Creole formed? What were the salient demographic characteristics of the Haitian population during that period? Who were the people present at the relevant time? What was their linguistic background? (see Lefebvre 1993a). The historical research in the colonial archives of France was carried out by John Singler (see Singler 1993a, 1993b, 1996). In short, Singler establishes the following points. Haitian Creole was formed between 1680 and 1740. This period is characterised by the following features. As a consequence of a shift from a tobacco and cotton economy to a sugar economy, the number of colonists decreased and the number of slaves exploded; this had the effect of modifying the slave population's exposure to French (Singler 1996). The bulk of the Caribbean population at the time Haitian Creole was formed was adult. As for the languages that these adults were speaking, Singler (1993b) shows that they were all Niger-Congo languages, more particularly Kwa (Gbe and Akan) and Bantu. During the formative period of Haitian Creole, Gbe speakers made up more than 50% of the French Caribbean slave-export population. As is pointed out in Lefebvre and Lumsden (1994b), the overall situation found in Haiti between 1680 and 1740 presented all the prerequisites for the emergence of a creole language: there was a multilingual community, in need of a *lingua franca*, and the bulk of the population, the speakers of the substratum languages, had only reduced access to the superstratum language (for further discussion, see Lefebvre 1998a: 52–58).

3.2.2. *The linguistic test*

The linguistic test consists in a detailed comparison of the lexicon and grammar of Haitian Creole with those of its contributing languages: French, its superstratum language, and West African languages, its substratum languages. Due to time and resource constraints, the detailed study of the substratum languages of Haitian was limited to one language. Because of the importance of the influence of the Fon culture on that of Haiti (with respect to religion and art, see e.g. Bastide 1967; Herskovits 1975), Fongbe, a language of the Gbe cluster, was chosen as the substratum language to be studied in detail (see Lefebvre 1986, 1993a; Lefebvre and Kaye (eds) 1986). Note that in no way does this methodological choice entail that the formation of Haitian can be reduced to the relexification of Fongbe alone. Our choice of Fongbe turned out to be a good one, in view of Singler's finding that the Gbe speakers outnumbered speakers of the other West African languages at the time Haitian Creole was formed. Furthermore, as is discussed at length in Lefebvre (1998a: 58–62), although the African languages spoken in Haiti at the time Haitian Creole was formed were numerous, they share a significant number of typological properties such that they constitute a relatively homogeneous group. As has been pointed out in Lefebvre and Lumsden (1994a), the methodological choices that we had to make had the effect of making the relexification hypothesis easier to falsify. (For a thorough discussion of the methodology of the research and the validity of the linguistic test, see Lefebvre 1998a: 52–77, and the references cited therein.)

The linguistic test involves a global comparison of the lexicons, parametric values, semantic interpretation rules and concatenation principles of the languages involved. As has been emphasised in Lefebvre and Lumsden (1994a, 1994b), one or two examples either way are not enough to support or falsify the hypothesis.[5] The test must involve quantity as well as quality. The comparison of the three lexicons is summarised in sections 3.3 and that of the parametric options in section 3.4. The conclusions to the detailed analyses layed out in the book are simply stated here, and the reader is referred to the various sections of the book for the analyses themselves.

3.3. The lexicon

This section summarises the findings pertaining to the role of relexification, reanalysis, and levelling in the formation of the Haitian Creole lexicon. Section 3.3.1 is dedicated to lexical semantics, section 3.3.2 to the syntactic properties of verbs, section 3.3.3. to derivational affixes. Sections 3.3.4 and 3.3.5 discuss functional category lexical entries involved in nominal structure and in clause structure, respectively. Rules and principles of concatenation of morphemes and lexemes will be mentioned throughout this section whenever pertinent.

3.3.1. Lexical semantics

This section brings together data illustrating the fact that, while the forms of the Haitian major category lexical items are derived from French, the semantic properties of these Haitian words are derived from the

substratum languages. Nouns, pronouns, reflexives, wh-words and verbs will be discussed in turn.

3.3.1.1. Simplex and compound nouns

Consider the nouns in (6). The Haitian lexical entries all have two meanings. For example, the noun *plim* means both 'feather' and 'hair'. Its form is derived from that of the corresponding French lexical entry *plume*. However, the French lexical entry has only one meaning, and therefore it cannot be the source of the extra meaning associated with the Haitian lexical entry. The corresponding Fongbe lexical entry, however, has the same two meanings as the Haitian one. This shows that the substratum lexical entry is the source of the semantic properties of the Haitian entry. The nature of the process of relexification predicts the properties of the Haitian lexical entries in (6): these lexical entries have a phonological representation derived from French but semantic properties derived from the substratum language.

(6) HAITIAN | FRENCH | FONGBE
plim | *plume* | *fún*
    'feather' | 'feather' | 'feather'
    'hair' | | 'hair'
vyann | *viande* | *làn*
    'meat' | 'meat' | 'meat'
    'edible animals' | | 'edible animals'
    (complement of | | (complement of
    the verb 'to kill') | | the verb 'to kill')
dife | (*du*) *feu* | *myɔ̀n*
    'fire' | 'fire' | 'fire'
    'brand' | | 'brand'
tèt | *tête* | *tà*
    'head' | 'head' | 'head'
    'roof' | | 'roof'
van | *vent* | *jɔ̀hɔ̀n*
    'wind' | 'wind' | 'wind'
    'air' | | 'air'

(from Lefebvre 1998a: 71)

The process of relexification also explains why some French lexical entries have not made their way into Haitian Creole. For example, as is shown in (7), while French BODY-parts are referred to by means of simplexes, Haitian BODY-parts are referred to by means of compounds. The words that are compounded are all phonologically derived from French but the French simplexes refering to BODY-parts did not make their way into Haitian. As is shown in (7), BODY-parts in Fongbe are referred by means of compounds. On the one hand, the data show that the Haitian compounds are formed on the model of the Fongbe ones. (For a discussion on the ordering of words in Haitian and Fongbe compounds, see Lefebvre 1998a: 339–342, and the references therein.) On the other hand, the distribution in (7) suggests that the French simplexes referring to BODY-parts did not make their way into Haitian because the creators of Haitian did not have simplexes to relexify in these cases.

(7) FRENCH   HAITIAN   FONGBE
     lèvre   *po-bouch*   *nù-fló*   'lip'
        'lip'   'skin-mouth'   'mouth-skin'
     narine   *twou-ne*   *àòntín-dó*   'nostril'
        'nostril'   'hole-nose'   'nose-hole'
     cil   *plim-je*   *wùn-ɖà*   'eyelash'
        'eyelash'   'hair-eye'   'eye-hair'
     nuque   *dèyè-kou*   *kɔ̀-gùdó*   'nape'
        'nape'   'back-neck'   'neck-back'
     crâne   *kalbas-tèt*   *tà-ká*   'skull'
        'skull'   'calabash-head'   'head-calabash'
                       or *tèt-kalbas*   (from Brousseau 1989)

In a similar fashion, in (8), where French has simplexes referring to people having certain characteristics, Haitian has compounds referring to people having the same characteristics. Again, the Haitian compounds are built on the model of the substratum language.

(8)   FRENCH   HAITIAN   FONGBE

a. *chauve* *tèt-chòv* *tà-súnsún* 'bald (person)'
(*tête-chauve*)
'head-bald' 'head-bald'

b. *personne-* *tèt-chaje* *tà-gbà* 'problematic
problème (*tête-troublé*) (person)'
'head-troubled' 'head-troubled'

c. *aveugle* *je-pete* *nùkún-tón-nò* 'blind (person)'
(*oeil-pété*)
'eye-burst' 'eye-burst-ATT'

d. *audacieux* *je-chèch* *hòn-wùn* 'audacious (person)'
(*oeil-sec*)
'eye-dry' 'clear-eye'

e. *prétentieux* *je-fò* *nùkún-kèn* 'pretentious
(person)'
(*oeil-fort*)
'eye-strong' 'eye-strong'

f. *entêté* *tèt-di* *tà-mè-sién-tó* 'stubborn (person)'
or *tête-dure* (*tête-dure*)
'head-hard' 'head-in-hard-AG'

(from Lefebvre 1998a: 336)

The fact that the French simplexes in (8) did not make their way into Haitian is accounted for by the relexification hypothesis.

The data in (7) and (8) further show that concepts that are rendered as compounds in Fongbe are often also rendered as compounds in Haitian where French has simplexes. Furthermore, in Haitian, simplexes are compounded following the semantics of the substratum language rather than the superstratum language. These facts argue for the claim that the creators of the creole used the principles of their own grammar in concatenating simplexes. Finally, as is shown in Brousseau (1988, 1989), with the exception of synthetic compounds, the types of compounds found in Haitian parallel the types in Fongbe rather than in French. (For further discussion, see Lefebvre 1998a: 334–348.)

3.3.1.2. Pronouns

The paradigms of tonic personal pronouns, possessive adjectives and pronouns, logophoric pronouns and expletives will be discussed in turn.

3.3.1.2.1. Personal pronouns. The paradigm of French tonic pronouns is as in (9). Gender (masculine and feminine) is distinguised in the third person singular and plural.

(9) *moi*   1st person singular 'I, me'   FRENCH

 toi   2nd person singular 'you (sg)'

 lui/elle   3rd person singular 'he (m)/she (f)'

 nous   1st person plural   'we/us'

 vous   2nd person plural   'you (pl)'

 eux/elles 3rd person plural   'they, them (m)/they, them (f)'

The paradigm of Haitian tonic pronouns in (10) has forms that are all derived from the French ones in (9). Gender is not encoded in this paradigm. The most striking fact about this paradigm is that the same form is used for both first and second person plural. This contrast with French, which has two distinct forms to encode first and second person plural.

(10) *mwen*   1st person singular   'I, me'   HAITIAN
 ou/[wu]   2nd person singular   'you (sg)'
 li   3rd person singular   'he/she/it/him/her'
 nou   1st and 2nd person plural 'we/us/you (pl)'
 yo   3rd person plural   'they/them'
                                       (from Valdman *et al.* 1981)

In the Fongbe paradigm of personal pronouns in (11), there is no gender distinction. Interestingly enough, the same form is used to encode both first and second person plural (see Lefebvre and Brousseau 2002: 61).

(11) *nyὲ*   1st person singular   'I, me'   FONGBE
 hwὲ   2nd person singular   'you (sg)'
 é(yὲ)   3rd person singular   'he/she/it/him/her'
 mí   1st and 2nd person plural 'we/us/you (pl)'
 yé   3rd person plural   'they/them'
                                       (=(18) in Brousseau 1995a)

The discrepancies between the Haitian and the French paradigms of personal pronouns appear to come from the substratum language and thus to follow

in a straightforward way from the relexification hypothesis. The morpheme *yo* is further discussed in 3.3.4.2.

Furthermore, the distribution of the tonic pronouns is not the same in all three languages. In Fongbe, tonic pronouns participate in the possessive construction. In this construction, the possessed noun is followed by the possessor; the latter can surface either as a noun or as a tonic pronoun followed by the genitive case marker, as is shown in (12). (The analysis according to which *tɔ̀n* is the genitive case marker in (12) is due to Brousseau and Lumsden 1992).

(12) a. [*xwé* [*Bàyí tɔ̀n*]]   FONGBE
          house   Bayi GEN
          'Bayi's house'
      b. [*xwé* [*nyɛ̀*/ *hwɛ̀* / *é*   / *mí*   / *yé*   *tɔ̀n*]]   FONGBE
          house me / you / (s)he / we, you / they GEN
          'my/your/his, her/our, your/their house'
                                              (=(30) in Brousseau 1995a)

In contrast, French pronouns do not occur in this context: *maison à/de moi* (lit.: 'house of me') is impossible in all French dialects (see Lefebvre 1998a: 143–147 for further discussion). Haitian follows the Fongbe pattern in using strong pronouns in possessive constructions, as is exemplified in (13). Note, however, that the case marker following the possessor in (13) is phonologically null. As per the analysis in Lumsden (1991), this null form has the properties of genitive case (see also Lefebvre 1998a: 101–110).

(13) a. [*kay* [*Jan*   ø]]   HAITIAN
          house John   GEN
          'John's house'   (from (8a) in Lefebvre 1998a: 145)
      b. [*kay* [*mwen* / *u*   / ... ø]]   HAITIAN
          house me   / you / ... GEN
          'my/your house'   (from (8b) in Lefebvre 1998a: 145)

Fongbe also makes use of tonic pronouns in possessive constructions where the possessed is not specified. This is illustrated in (14)

where the non-specified possessed NP is followed by the possessor which can be expressed either as a noun or as a personal pronoun marked for genitive case.

(14) *Kòkú sɔ́* [— [*À síbá* / *nyɛ̀ tɔ̀n*]]   FONGBE
Koku take   Asiba   me   GEN
'Koku took Asiba's/mine.'   (=(11) in Lefebvre 1998a: 146)

French tonic pronouns cannot appear in this type of construction, as the sentence **Koku a pris de moi* (lit.: 'Koku took of me') is not licit. Again, Haitian follows the Fongbe pattern as it encodes reference to a whole possessive NP by means of the genitive construction involving a noun or a personal pronoun followed by the phonologically null genitive case marker, as is illustrated in (15).

(15) *Jan   pran* [*pa* [*Mari* /*mwen* ø]]   HAITIAN
John take   thing Mary   me   GEN
'John took Mary's/mine.'   (=(12) in Lefebvre 1998a: 146)

The Haitian structure in (15) is of the same type as the Fongbe one in (14), except for the fact that the possessed NP in Haitian is realised as *pa*, a head filler. Haitian *pa* is phonologically derived from the French form *part* 'share' (Goodman 1964). However, it is most appropriately glossed as 'thing' since it may refer to any possible antecedent that may be possessed. This contrasts with Fongbe, where the possessed NP is phonologically null. The difference between the two languages thus appears to be that, while Fongbe allows the possessed to be null, Haitian does not (Brousseau 1995a; Kinyalolo 1994). This discrepancy may be attributable to the fact that, while in Fongbe, genitive case is phonologically overt, in Haitian it is not. (For further discussion see Lefebvre 1998a: 143–147).

So far, we see that the Haitian paradigm of personal pronouns follows the semantic division of the substratum language in having five

pronominal forms instead of six. We also see that the distribution of these Haitian pronominal forms follows that of the Fongbe tonic pronouns and departs in a significant way from that of the French tonic pronouns. Since French tonic personal pronouns do not occur in possessive constructions, as was shown above, the following questions arise: (i) How does French encode these possessive relationships? (ii) Does Fongbe offer a parallel way of encoding these relationships? And finally, (iii), is the French way of encoding these relationships replicated in Haitian? These questions are addressed in the following section.

3.3.1.2.2. Possessive adjectives and pronouns. As we saw in the preceeding section, French tonic personal pronouns do not occur in possessive constructions. This is because French has paradigms of possessive adjectives and pronouns. These paradigms will be discussed in turn, and compared with Fongbe and Haitian.

French has a paradigm of possessive adjectives in which forms are distinguished by gender (masculine and feminine) and by number (singular and plural). This is shown in (16).

(16)	Possessed singular		Possessed plural	FRENCH
	masculine	feminine		
1st sg	*mon*	*ma*	*mes*	'my'
2nd sg	*ton*	*ta*	*tes*	'your'
3rd sg	*son*	*sa*	*ses*	'his/her'
1st pl	*notre*		*nos*	'our'
2nd pl	*votre*		*vos*	'your'
3rd pl	*leur*		*leurs*	'their'

These possessive adjectives precede the possessed noun: *mon livre* 'my book', *ma table* 'my table'.

Fongbe has a defective paradigm of possessive adjectives that contains only two terms. As is shown in (17), these possessive adjectives follow the noun..

(17) *xwé   cè / tòwè*   FONGBE
      house my / your
      'my/your house'   (=(31) in Brousseau 1995a)

As we saw in the preceding section (see (12)), the regular way of encoding possession in Fongbe is by means of the genitive construction where the possessor, a noun or a tonic personal pronoun, is followed by the genitive case marker.

The Haitian lexicon has no possessive adjectives. As is extensively discussed in Lefebvre (1998a: 143–147), this follows from the relexification hypothesis of creole genesis. The French forms in (16) which have no Fongbe counterparts were not incorporated into Haitian because there were no such entries in the original lexicon to be relexified. Brousseau (1995a) further suggests that the Fongbe forms *cè* and *tòwè* in (17) were not relexified for the following reasons: First, the native grammar already offered another regular option for encoding the same relationships, namely personal pronouns used in the genitive construction (see (12)). Second, the fact that the Fongbe paradigm of possessive adjectives was defective probably played a role in leading the creators of Haitian to abandon these two lexical entries in creating the new lexicon. This is a likely explanation in light of the fact that, in some Gbe languages, the paradigm of possessive adjectives is not only defective but lacking all together. Hazoumê's (1990) description of possessive constructions in several Gbe dialects reveals the following similarities and differences between them. First, no Gbe dialect has a complete paradigm of possessive adjectives: Like Fongbe, Gungbe

only has two forms corresponding to those in (17). Ajagbe and Gengbe only have a form for first person singular, and Tɔfingbe, for second person singular. Other Gbe dialects such as Xwedagbe have no such forms at all. Second, in all Gbe dialects possession may be expressed by means of a genitive construction of the type illustrated in (12b) for Fongbe.

In contexts corresponding to those in (14) and (15), where the possessor is not specified, French has a paradigm of possessive pronouns presented in (18) (from Grevisse 1975; Haase 1975). These pronominal forms encode person, number and gender features. Number and gender features must match those of the antecedent NP.

(18)

	Possessed singular		Possessed plural		FRENCH
	masculine	feminine	masculine	feminine	
1st sg	*mien*	*mienne*	*miens*	*miennes*	'mine'
2nd sg	*tien*	*tienne*	*tiens*	*tiennes*	'yours'
3rd sg	*sien*	*sienne*	*siens*	*siennes*	'his/hers/its'
1st pl	*nôtre*		*nôtres*		'ours'
2nd pl	*vôtre*		*vôtres*		'yours'
3rd pl	*leur*		*leurs*		'theirs'

Gbe languages do not have possessive pronouns (Hazoumê 1990). As we saw in section 3.3.1.2.1, in Fongbe, the type of possessive construction involving possessive pronouns in French is rendered by means of a tonic personal pronoun followed by the genitive case. The possessed NP is phonologically null. As is shown in (14), Haitian does not have possessive pronouns either. This follows from the relexification account of creole genesis: the creators of Haitian simply had no possessive pronouns to relexify.

3.3.1.2.3. Logophoric pronouns. Some West African languages have a form of personal pronoun which, unlike other pronominal forms, has no independent reference (e.g. Clements 1975; Hagège 1974; Hyman and

Comrie 1981; etc.). This kind of pronoun is referred to as logophoric. A logophoric pronoun is morphologically distinct from the other pronouns in a given language and it must have an antecedent in a higher clause.

In addition to the personal pronouns in 3.3.1.2.1, Fongbe has a logophoric pronoun. The form of this pronoun is *émì*. It is morphologically distinct from the personal pronouns in (11). Furthermore, as is shown by the ungrammaticality of (19), *émì* has no independent reference.

(19) **Émì hwlá Àsíbá sín   gbɔ́*   FONGBE
     LOG hide Asiba OBJ   goat
     '(S)he hid Asiba's goat.'   (=(6) in Kinyalolo 1993c)

Émì has to be interpreted based on the context in which it appears. The data in (20) show that, in Fongbe, the antecedent of *émì* may be second person, as in (20a), or third person, as in (20b) and (20c), but not first person (Kinyalolo 1993b, 1993c).

(20) *Sìká tùn   ɖɔ̀ yé ɖɔ̀ à flín   ɖɔ̀ émì hwlá* FONGBE
     Sika know say they say you remember say LOG hide
     Àsíbá sín gbɔ́.
     Asiba   OBJ goat
     a. 'Sika knows that they said that you*ᵢ* remember that you*ᵢ* hid A's goat.'
     b. 'Sika knows that they*ᵢ* said that you remember that they*ᵢ* hid A's goat.'
     c. 'Sika*ᵢ* knows that they said that you remember that she*ᵢ* hid A's goat.'

                     (=(13) in Kinyalolo 1993c)

Haitian does not have a logophoric pronoun. In Lefebvre (1998a: 147–148), it is claimed that this follows from the semantic constraint imposed on the process of relabelling in relexification: since relabelling is semantically driven, and, since logophoric pronouns do not have independent semantic content, it follows that logophoric pronouns will not be relabelled in creolisation. Since there has been no data presented to argue for a

phonologically null logophoric pronoun in Haitian, it is logical to assume that the logophoric pronoun of the substratum language has not made its way into the creole.

3.3.1.2.4. Expletives. In all three languages under comparison, the form of the expletive subject is the same as that of the third person singular personal pronoun: *li* in Haitian, *il* in French and *é* in Fongbe, as is shown in (21).

(21) a.   *Li bon   pou   Jan pati.*   HAITIAN
            it   good   COMP John leave
            'It is good that John will leave.'
      b.   *Il   est   bon   que   Jean   parte.*   FRENCH
            it   AUX good COMP John   leave
            'It is good that John will leave.'
      c.   *É nyɔ́   ɖɔ̀   Kòkú ní   yì.*   FONGBE
            it be.good COMP Koku IRR leave
            'It is good that Koku will leave.'
                            (=(36) in Lefebvre 1998a: 157)

     The Haitian expletive is not always overt (e.g. Koopman 1986; Massam 1989; DeGraff 1992a, 1992d, 1993b, 1994; Déprez 1992a; Vinet 1991; Law 1992; etc.). This is illustrated in (22).

(22)   (*Li*) *sanble Jan   te   malad.*   HAITIAN
         it   seem John ANT sick
         'It seems that John has been sick.'   (=(37) in Lefebvre 1998a: 158)

Koopman (1986), Massam (1989), Vinet (1991) and Déprez (1992a) all proposed that, in addition to an overt expletive subject, Haitian has a phonologically null expletive subject. Not all languages have this option. For example, as is shown by the ungrammaticality of (23), French does not have this option. (For further discussion, see Lefebvre 1998a: 157–159.)

(23)   **semble que   Jean soit malade*   FRENCH
       seem   COMP John be   sick   (=(38) in Lefebvre 1998a: 158)

Fongbe, however, does have this option, as is illustrated in (24).

(24) (É) ḍì ḍɔ̀ Kɔ̀kú j'àzɔ̀n.   FONGBE
    it seem COMP Koku sick
    'It seems that Koku is sick.'   (=(42) in Lefebvre 1998a: 159)

So, in both Haitian and Fongbe, but not in French, a phonologically null expletive is available. Assuming that a phonologically null expletive constitutes a lexical entry, the creators of Haitian would have reproduced it in the creole lexicon.

3.3.1.3. Reflexives

Haitian lacks an overt morphological reflexive form of the type of *self* in English. Some nouns and pronouns, however, are involved in the interpretation of reflexivity. In fact, Haitian offers three possibilities for expressing this notion, as is illustrated below. The sentence in (25a) shows that a bare personal pronoun may be assigned a reflexive interpretation. The sentences in (25b) and (25c) show that nouns such as *tèt* 'head' and *kò* 'body', followed by a possessor phrase containing a personal pronoun, may also be assigned a reflexive interpretation.

(25) a.   *Mwen$_i$ wè mwen$_i$ nan glas la*   HAITIAN
           I   see   me   in   mirror DEF
           'I saw myself in the mirror.'   (=(1a) in Brousseau 1995b)
    b.   *M$_i$ ap touye tèt mwen$_i$*   HAITIAN
           I   DEF.FUT kill   head me
           'I will kill myself.'   (=(2a) in Brousseau 1995b)
    c.   *Li$_i$ blese kò li$_i$*   HAITIAN
           he   hurt body him
           'He hurt himself.'   (=(6d) in Brousseau 1995b)

In contrast to Haitian, French does not allow a reflexive interpretation of bare pronominal forms, as is shown by the ungrammaticality of (26a). For a reflexive interpretation to obtain, a syntactic clitic has to be used, for the first and second person, as is shown in (26b); in the third person, the reflexive clitic *se* has to be used as in (26c).

(26)   a.   *Je vois   moi   dans   le   miroir   FRENCH
                 1st   see   me   in   DEF   miror
                                       (=(48a) in Lefebvre 1998a: 161)

       b.   *Je me   vois   dans   le   miroir   FRENCH
                 1st 1st   see   in   DEF   miror
                 'I see myself in the miror.'

       c.   *Ils se   voient   FRENCH
                 3rd REF   see
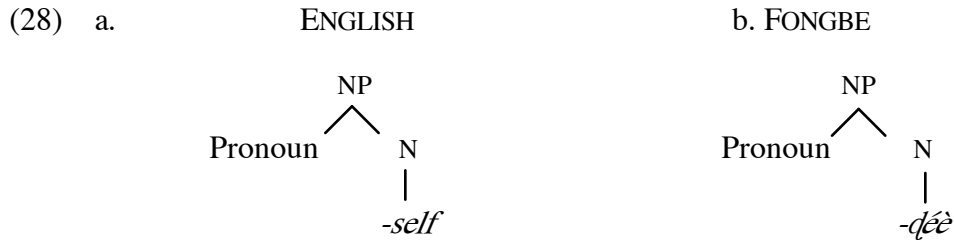   'They see themselves.'

In Lefebvre (1998a: 162–166), it is extensively argued that French has played no role in determining the reflexive interpretation of the Haitian personal pronouns as in (25a). This conclusion accords with Muysken and Smith's (1995) observation that the lexifier languages can only play a limited role in the historical derivation of reflexives in creole languages in general.

      In Lefebvre (1998a: 159–171), it is argued, however, that the patterns in (25) find a straightforward explanation in the substratum languages of Haitian. All Gbe languages encode reflexivisation by means of a personal pronoun + SELF (Hazoumê 1990). In Fongbe, this lexical item is -*ɖéè* and it has semantic and distributional properties that are similar to those of the English -*self* (Kinyalolo 1994). For example, in English, pronouns combine with -*self* (e.g. *He washes him-self*). Likewise, in Fongbe, the strong pronominal forms discussed in section 3.3.1.2.1, but not the syntactic clitics (Kinyalolo 1994; Brousseau 1995a), combine with -*ɖéè*, as is illustrated in (27).
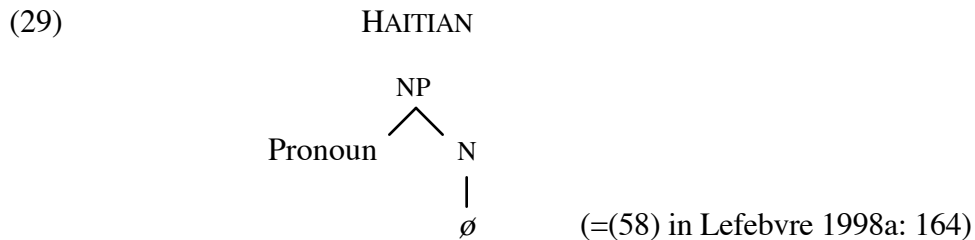
(27) a. *N*ᵢ *ná*   *hù* *nyὲ-ɖéè*ᵢ   b. *Bàyí*ᵢ *mɔ̀ é-ɖéè*ᵢ FONGBE
          1sg DEF.FUT kill me-SELF   Bayi   see she-SELF
          'I will kill myself.'   'Bayi saw herself.'
                                          (=(45) in Brousseau 1995a)

In English, the construction pronoun + *self* is assigned an analysis such as that in (28a), where -*self* is the head of NP, and the pronoun occurs in the

specifier position of the projection (Chomsky 1981). Kinyalolo (1994) proposes to account for the Fongbe construction pronoun + *ɖéè* in the same way, as is illustrated in (28b).
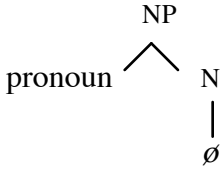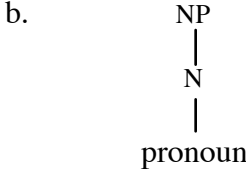
(28)   a.   ENGLISH   b. FONGBE

```
                 NP                                        NP
                /\                                        /\
        Pronoun    N                            Pronoun      N
                   |                                         |
                 -self                                     -ɖéè
```

In Haitian, there is no overt form corresponding to Fongbe *-ɖéè*. Nonetheless, Lefebvre (1998a: 164) proposes that the representation of the!Haitian reflexive phrase is as in Fongbe, with the difference that, in Haitian, the head noun of the construction is phonologically null, as is illustrated in (29).

(29)   HAITIAN

```
                NP
               /\
       Pronoun    N
                  |
                  ø              (=(58) in Lefebvre 1998a: 164)
```

In terms of the relexification hypothesis, this amounts to saying that the lexical entry copied from Fongbe *-ɖéè* was assigned a null form at relabelling.[6] In Lefebvre (1998a: 160–167), it is hypothesised that this is because the superstratum language did not offer a form that could provide a new label for the original lexical entry. As we saw above, French does not have a lexical anaphor. In this view, then, the Haitian lexicon would have a lexical entry corresponding to Fongbe *-ɖéè* with a phonologically null representation. In this analysis, a personal pronoun is assigned a reflexive interpretation when it is interpreted from the specifier position of an NP headed by a phonologically null reflexive anaphor, as in (30a), and a free

interpretation when it is interpreted from the head position of an NP, as in (30b).

(30)　a.

NP　　　　　　　　　　　　b.　　　　NP

pronoun　　N　　　　　　　　　　　　　N

ø　　　　　　　　　　　　pronoun

(from Lefebvre 1998a: 164)

Two independent arguments support this analysis. First, a reciprocal interpretation of the construction may also obtain in both Haitian (e.g. Koopman 1986; Déchaine and Manfredi 1994) and Fongbe (e.g. Kinyalolo 1994), as is shown in (31).

(31)　　*Yo　wè　yo　ø.*　　　　　　　HAITIAN
　　　　Yé　mɔ̀　yé　ɖéè　　　　　　FONGBE
　　　　they　see　they　SELF
　　　　'They saw themselves/each other .'
　　　　　　　　　　　　　　(from Lefebvre 1998a: 167)

The reciprocal interpretation of the Haitian sentence in (31) must result from the fact that Haitian has a covert form corresponding to *-ɖéè* in Fongbe. Haitian and Fongbe both contrast with French, which requires the clitic *se* in this context.

(32)　a.　**Ils voient　eux/eux-mêmes*　　　　FRENCH
　　　　　[Lit.: 'They see them/themselves.']
　　　　　　　　　　　　(=(69a) in Lefebvre 1998a: 167)
　　　b.　*Ils　se　voient.*　　　　　　　　FRENCH
　　　　　'They see themselves/each other.'
　　　　　　　　　　　　(=(69b) in Lefebvre 1998a: 167)

The second argument supporting the above analysis is that Caribbean creoles whose lexifier language has a SELF anaphor have an overt SELF anaphor. This is the case of English- or Dutch-based creoles. For example, Berbice Dutch has the form *-selfu* derived from Dutch *-zelf* (Robertson

1993: 307); Gullah has -*self* from English -*self* (Mufwene 1992: 169), and Saramaccan has -*seéi* (Veenstra 1996a: 43).

I now turn to the discussion of BODY-part reflexives as they occur in (25a) and (25b). The phonological representation of Haitian *tèt* is derived from French *tête* 'head', and that of *kò* from French *corps* 'body'. But in French, these two words cannot be assigned a reflexive interpretation (see Lefebvre 1998a: 167–170). Consequently, the reflexive interpretation of BODY-parts cannot come from French. Are there BODY-part reflexives in Fongbe? Both Kinyalolo (1994) and Brousseau (1995a) report that, in Fongbe, the word meaning 'head' is never assigned a reflexive interpretation, and that, the Fongbe word meaning 'body' *wú* cannot be assigned a reflexive interpretation either. Consequently, Fongbe cannot be the source of the reflexive interpretation of Haitian *kò* and *tèt*.

In Lefebvre (1998a: 167–170), it is shown that the reflexive interpretation of BODY-parts may be traced to other substratum languages. More precisely, it is shown that BODY-part reflexives of the type we find in Haitian constitute a widespread phenomenon in Kwa languages (e.g. Awoyale 1986; Faltz 1985; Sylvain 1936). By hypothesis then, speakers of these languages would have used the relexified words for BODY-parts in reflexive constructions. Assuming that this is the correct way of looking at the data, there is no need to appeal to independent development of the Haitian BODY-part forms, as is claimed by Carden and Stewart (1988:!32).

The relexification hypothesis provides a straightforward account of the fact that we find several reflexive forms in Haitian. Speakers who had lexicons with reflexive anaphors would use pronominal forms and a phonologically null anaphor when speaking the creole. Speakers who had

lexicons with BODY-part reflexives would use BODY-part reflexives when speaking the creole. The variation in the creole reflects differences among the substratum lexicons. This situation suggests that, in the early creole, there were different Haitian dialects reflecting the differences among the substratum languages. The availability of several forms to encode the same notion constitutes an ideal situation for dialect levelling to occur. This topic is taken up in chapter 9.

3.3.1.4. Wh-words

In the languages of the world, Wh-expressions may be generated either by syntactic or morphological rules. In the first case, the Wh-phrase is headed by a noun that is modified by a Wh-adjective. In the second case, the Wh-phrase is realised as a Wh-word. On the basis of tests distinguishing between Wh-phrases and Wh-words (see Lefebvre 1998a: 171–182), it can be established that Haitian Creole has four Wh-words listed in (33) (phonetic variants are not considered here). Of these four forms, the first two contain the Wh-morphological element *ki-*. The other two forms are unanalysable simplexes.

(33) *ki-lès*   'which one'   HAITIAN
      (*ki-*)*sa*   'what'
      kouman   'how'
      konbyen   'how much, how many'   (=(5) in Brousseau 1995a)

As is shown in (33), the form *ki-sa* 'what' may simply surface as *sa* as in *Sa ou fè?* 'What did you do?' (see Valdman *et al.* 1981; Koopman 1982b; Lefebvre 1986; Brousseau 1995a). A specific property of the form *ki-lès* 'which one' is that it occurs with the plural marker *yo* when a plural meaning is intended.

(34) *Ki-lès   yo   ou   achte*?   HAITIAN
     which-one PL   you buy
     'Which ones did you buy?'   (=(6) in Brousseau 1995a)

The form *konbyen* 'how much/how many' may occur as the sole element of

the Wh-phrase, as in (35a), or it may co-occur with a noun, as in (35b).

(35) a.   *Konbyen   ou   achte*?   HAITIAN
           how-much/many   you buy
           'How much/many did you buy?'
      b.   *Konbyen   pwason ou   achte*?   HAITIAN
           how-much/many   fish   you buy
           'How much fish did you buy?' or
           'How many fishes did you buy?'
           (=(7) in Brousseau 1995a)

Questions made out of other positions are encoded by means of syntactic

phrases made up of the Wh-adjective *ki* and a noun, as in (36a). Finally, the

Haitian expression meaning 'why' in (36b) is made up of the preposition

pou 'for' and the word *ki-sa* 'what'. In this case, *ki-sa* may simply be

realised as *ki* as in *Pou ki ou fè sa?* 'Why did you do that?' (see Lefebvre

1986; Brousseau 1995a).

(36) a.   *ki moun*   'which person/who'   HAITIAN
           ki bagay   'which thing/what'
           (*ki*) *kote*/*ki bò* 'which place/where'
           ki jan   'which manner/how'
           ki kalite   'which kind/how'
           ki lè   'which time, moment/when'
      b.   *pou ki*(*-sa*)   'for what/why'   HAITIAN
                (from Koopman 1982b; Lefebvre 1986; Brousseau 1995a)

Why do Haitian Wh-expressions divide up as they do between Wh-words,

as in (33), and syntactically derived Wh-expressions, as in (36)? Why does

Haitian have only four Wh-words? And why does it have the particular set it

has?

       Let us first consider the data from the superstratum language. Like

Haitian, French has both Wh-words and syntactically derived Wh-phrases.

The inventory of French Wh-words used in questions is given in (37).

(37) *lequel/laquelle/lesquels/lesquelles* 'which one(s)' FRENCH
      qui   'who'
      que/quoi   'what'
      où   'where'
      quand   'when'
      comment   'how'
      combien   'how much/how many'
      pourquoi   'why'

Abstracting away from the morphological variants of a single form, the inventory of French Wh-words in (37) comprises eight lexical entries. In contrast, Haitian has only four Wh-words (see (33)). Consequently, in several cases where French has a Wh-word, Haitian has recourse to a syntactically derived Wh-phrase. For example, where French has the lexeme *où* 'where', Haitian has the syntactic phrase *ki kote* 'which place'. Like Haitian, French also has Wh-phrases made up of a Wh-adjective and a noun. These are listed in (38a). The Wh-expression in (38b) is made up of the preposition *pour* 'for' and a Wh-phrase meaning 'which reason'.

(38) a.   *quelle personne*   'which person'   FRENCH
           ?quelle chose   'which thing'[7]
           (*de*) *quel côté/bord*   'which side'
           (*de*) *quelle manière*   'which manner'
           quelle sorte (*de*)   'which kind'
           quel moment   'which time'
      b.   (*pour*) *quelle raison* '(for) which reason' FRENCH

The structure of the French Wh-phrases in (38a) parallels that of the Haitian Wh-phrases in (36a). In both languages, the Wh-phrase consists of a Wh-adjective meaning 'which', *quel* and *ki*, respectively, and a noun. The structure of the French Wh-expression in (38b), however, is not parallel to that of the Haitian one in (36b). While French has an expression meaning 'for what reason', Haitian has an expression meaning 'for what'. A thorough comparison of the Haitian and French Wh-forms and Wh-expressions in Lefebvre (1998a: 173–182) shows that the details of the

Haitian forms in (33) and (36) do not correspond to those of the French ones in (37) and (38). The details of the Haitian forms, however, do follow those of the Fongbe substratum language, to which we now turn.

The Wh-words and Wh-phrases of Fongbe (from Anonymous 1983; Brousseau 1995a; Lefebvre 1986 and further data that I collected) are listed in (39).

(39)

		FONGBE	LITERAL GLOSSES (from Segurola 1963)	MEANING
a.	Wh-words:	*ɖè-té*	one-which	'which one'
		(é)-té/àní	that-which	'what'
		négbɔ̀n		'how'
		nàbí		'how much/ many'
b.	Wh-phrases:	*mè té*	person which	'who'
		nú té	thing which	'what'
		fí (té)	place which	'where'
		àlɔ̀ té	manner which	'how'
		àlɔ̀kpà té	kind which	'what kind'
		hwènù té	moment/time which	'when'
		(é)té (w)ú(tú)/ àní (w)ú(tú)	what cause	'why'

(=(92) in Lefebvre 1998a: 177)

Fongbe thus has five Wh-words, two of which are made up of a noun/pronoun and the Wh-affix *-té*. It has two words meaning 'what': *(é-)té* and *àní*. Brousseau (1995a) points out that the two forms do not seem to have any distinguishing semantic or syntactic properties except for the fact that *àní* is less acceptable than *(é-)té* in echo questions. The other two Wh-words do not contain the Wh-affix *-té*. The remaining Wh-expressions are syntactic phrases comprised of a noun and the Wh-adjective *té* 'which'. The Wh-phrase meaning 'why' is made up of the Wh-word meaning 'what' and the postposition *(w)ú(tú)* 'cause' (see Anonymous 1983).

The Fongbe Wh-expressions in (39) are compared with the Haitian ones in (40).

(40)   HAITIAN   FONGBE

    a.   Wh-words: *ki-lès*   *ɖè-té*   'which one'

                         (ki-)sa   *(é-)té/àní*   'what'

                         kouman   *négbɔ̀n*   'how'

                         konbyen   *nàbí*   'how many/much'

    b.   Wh-phrases: *ki moun*   *mè té*   'which person/who'

                         ki bagay   *nú té*   'which thing/what'

                         (ki) kote/ki bò   *fí (té)*   'which place/where'

                         ki jan   *àlɔ̀ té*   'which manner/how'

                         ki kalite   *àlɔkpà té*   'which kind/how'

                         ki lè   *hwènù té*   'which moment/

                                                     time/when'

                         pu ki(-sa)   *(é)té (w)ú(tú)/* 'what, cause/why'

                                        àní (w)ú(tú)

                                      (=(93) in Lefebvre 1998a: 178)

Haitian and Fongbe have inventories of only four and five Wh-words, respectively. Except for *àní* 'what', which has no corresponding form in Haitian, each of the Fongbe forms has a Haitian equivalent. Furthermore, the morphological makeup of these forms is similar in the two languages. The Fongbe forms which include the Wh-affix *-té* correspond to the Haitian forms with the Wh-affix *ki-*. In both languages, the other two Wh-words do not contain this Wh-morpheme. Like its Haitian counterpart, the Fongbe form *ɖè-té* 'which one' is unmarked for gender and requires the plural marker *lɛ́* when a plural meaning is intended. The Fongbe data in (41) correspond to the Haitian data in (34).

(41)   *Ɖè-té lɛ́*   *à*   *xɔ̀?*   FONGBE

       which one   PL   you   buy

       'Which ones did you buy?'   (=(11) in Brousseau 1995a)

Like the Haitian form *konbyen* 'how much/many', the Fongbe form *nàbí* 'how much/many' may be the sole lexical element in its projection, or it may occur with a noun, as in (42), which parallels the Haitian data in (35).

(42) a. *Nàbí*   *à* *xɔ̀?*   FONGBE
     how-much/many you buy
     'How much/many did you buy?'

   b. *Hwèví nàbí*   *à* *xɔ̀?*   FONGBE
     fish how-much/many you buy
     'How many fish did you buy?'
     or 'How much fish did you buy?' (=(12) in Brousseau 1995a)

In both languages, all the other Wh-expressions are syntactic expressions involving the Wh-adjectives *kí* and *tɛ́*, respectively, plus a noun. Furthermore, in both languages, the Wh-expressions have the same meaning. Finally, the forms (*é*)*tɛ́* (*w*)*ú*(*tú*) and *pou ki-*(*sa*) 'why' parallel each other in an interesting way: both involve a Wh-word, meaning 'what', and a lexical element of the category P: the postposition (*w*)*ú*(*tú*) in Fongbe, meaning 'cause', and the preposition *pou* in Haitian meaning 'for'.

  Thus, the reason why the Haitian Wh-expressions divide up as they do, between Wh-words and Wh-phrases, follows from the relexification hypothesis of creole genesis. Haitian has Wh-words which correspond to lexical entries in the substratum lexicon. This supports the argument that the creators of Haitian relabelled their own lexical entries using French phonetic matrices, and that they ignored the French forms that they did not have in their own lexicon. This explains why the French simplexes *qui* 'who', *que* 'what', *où* 'where', *quand* 'when' and *pourquoi* 'why' did not make their way into Haitian. The relexification hypothesis also explains why the morphological makeup of the Haitian Wh-words is so similar to that of the corresponding Fongbe words (see (40)). Finally, Haitian has Wh-phrases exactly where the substratum language has Wh-phrases, showing that the creators of Haitian used the concatenating properties of their own grammar and lexicon in creating the Haitian Creole Wh-phrases.

In Lefebvre (1998a: 171–182), it is further argued that the semantic, syntactic and distributional properties of the Wh-expressions of Haitian Creole follow the details of its substratum languages. One exception to this general state of affairs is discussed: the relative position of the Wh-element and the head of the construction in which it appears. While *ki* precedes the head of the construction in Haitian, *té* follows it in Fongbe. This discrepancy, however, is exactly what is expected under the theory of how word order is established in creole genesis (see section 3.1.4). For lexical categories, the word order of the creole is predicted to follow that of the superstratum language. In French, the Wh-adjective *quel* 'which' precedes the noun. The position of Haitian *ki* follows the French pattern. Likewise, while the Fongbe Wh-phrase meaning 'why' makes use of the postposition (*w*)*út*(*tú*), the corresponding Haitian expression makes use of a preposition, in accordance with the French word order.

The three-way comparison presented above shows that the semantic and syntactic properties of the Haitian Wh-expressions are derived from those of the corresponding lexical entries in the substratum language. Their phonological representations are derived from phonetic strings found in the superstratum language. This division of properties is exactly what is predicted by the relexification hypothesis.

3.3.1.5. Verbs

As is the case of the nouns in (6), the Haitian verbs in (43) have two meanings. Their phonological representations are derived from corresponding French verbs. These French verbs, however, lack one of the two meanings associated with the Haitian verbs. This shows that French

cannot be the source of the extra meaning associated with the Haitian verbs. Fongbe verbs, however, appear to be the source of the extra meaning associated with the Haitian verbs. Again, this follows from the relexification hypothesis.

(43) HAITIAN | FRENCH | FONGBE
ansasinen | *assassiner* | *hù*
   'to murder' | 'to murder' | 'to murder'
   'to mutilate' | | 'to mutilate'
gade | *garder* | *kpɔ́n*
   '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 look' | *regarder* 'to | 'to look'
   'to imitate' | look' | 'to imitate'
| *imiter* 'to imitate' |
gade | *regarder* | *kán*
   'to concern' | 'to concern' | 'to concern'
| 'to look' |
kase | *casser* | *gbà* (*-kpɔ́*)
   'to slim down' | | 'to slim down'
   'to break' | 'to break' | 'to break'
kraze | *écraser* | *kíjá*
   'to break to | 'to destroy' | 'to break to pieces'
pieces' | 'to crush' | 'to break by
   'to break by | | spreading'
   spreading' | | 'to disperse'
   'to disperse' | |

(from Lefebvre 1999a: 69–79)

Many other examples of this type illustrating cases of substratum semantics in Haitian Creole resulting from relexification can be found in Brousseau (1989), Lefebvre (1998a, 1999a), Lumsden (1999a, 1999b). Furthermore, in Lefebvre (1999a, and the references therein), it is shown that, where the aspectual properties of verbs are not the same in the three languages under comparison, Haitian generally pairs with Fongbe rather than with French. Likewise, thematic properties of Haitian verbs (with respect to agentiveness) are shown to follow those of Fongbe rather than those of French, in cases where Fongbe and French differ.

In spite of these extensive similarities between Haitian and Fongbe, there are also some differences between the two languages. For example, as is discussed in Lefebvre (1999, and the references cited therein), there are more verbs in Haitian than there are in Fongbe. This situation is hypothesised to result from the acquisition, by the creators of Haitian, of French verbs that have no counterpart in the Haitian substratum languages. The consequences of this state of affairs on the makeup of the creole is a topic for future research.

3.3.1.6. Summary

The data presented in this section illustrate various effects of the role of the process of relexification in creole genesis. First, they illustrate the systematic division of properties of the creole lexical entries between its contributing languages: while the label of the creole's lexical entries are derived from its superstratum language, its semantic properties are derived from the substratum languages. Second, they illustrate the fact that some French lexical entries did not make it into the creole because the creators of the creole did not have corresponding lexical entries to relexify (e.g. the second person plural personal pronoun, the possessive adjectives and pronouns, etc.). Third, they show that lexical entries that do not have independent semantic content cannot be relabelled (e.g. the logophoric pronouns of the Haitian substratum languages). Fourth, they show that the concatenation of words into compounds follows the principles of the substratum languages rather than those of the superstratum.

Given this conclusion, one might wonder why Haitian Creole appears to make fewer lexical distinctions, in some areas of the lexicon, than

its substratum languages. For example, as is shown in Lefebvre (1989), while Fongbe has several verbs of cutting encoding various manners or cutting, Haitian has fewer verbs participating in the paradigm of cutting verbs. In Lefebvre (1989) and in Lefebvre (1998a), it is extensively shown that, as a result of the discrepancy between the substratum and the superstratum lexicons, several substratum lexical entries may end up being relabelled by the same superstratum form. On the surface, such cases may appear as counterexamples to the relexification hypothesis of creole genesis. Through deeper analysis, however, such cases illustrate the constraints imposed by the superstratum language on the process of relabelling.

3.3.2. *The syntactic properties of verbs*

Although the semantic and syntactic properties of verbs are not always easy to distinguish from each other, there are properties of verbs that are generally considered to be syntactic, such as selectional, raising, control, and case-assigning properties. Verbs' syntactic properties are specified in their lexical entries. The relexification hypothesis predicts that the syntactic properties of verbal lexical entries in the substratum languages will be reproduced in the corresponding lexical entries in the creole. The comparison of the syntactic properties of Haitian, French and Fongbe verbs shows that, to a great extent, this prediction is borne out.

3.3.2.1. *Types of argument structures*

Detailed discussions of types of argument structures in Haitian and Fongbe can be found in Massam (1989) and Lefebvre (1991a), respectively. A preliminary comparison of argument structures in Haitian, French and

West African languages may be found in Koopman (1986). Building on these findings and on further work, Lefebvre (1998a: 248–250) provides a short overview of the types of argument structures in Haitian, French and Fongbe, pointing out their similarities and differences.

All three languages have monadic verbs. These include unaccusative verbs such as 'to go', 'to come', etc. While such Haitian and Fongbe verbs occur in their bare form, as in (44a), the corresponding French verbs are conjugated with the auxiliary 'to be', as in (44b).

(44) a.   *Li   ale / rive.*   HAITIAN
          É   yì   / wá.   FONGBE
          'He left/arrived.'
      b.   *Il   est   parti / arrivé.*   FRENCH
          'He left/arrived.' (=(1) in Lefebvre 1998a: 249)

In both Haitian and Fongbe the locative argument of these verbs need not be introduced by a case marker or a pre- or postposition, whereas in French, the locative object has to be introduced by *à* 'at'. This contrast is shown in (45) a and b, respectively.

(45) a.   *Li   ale / rive Pòtoprens.*   HAITIAN
          É   yì   / wá Kùtónû.   FONGBE
          'He went to/arrived in Port au Prince/Cotonou.'
      b.   *Il   est   allé / arrivé à Paris.*   FRENCH
          'He went to/arrived in Paris.' (=(2) in Lefebvre 1998a: 249)

Single-variable verbs also include unergative verbs such as 'to bark' and 'to jump', as shown in (46). While such Haitian and Fongbe verbs occur in their bare form, the French equivalents are conjugated with the auxiliary 'to have'.

(46) a.   *Li   abwaye / sote.*   HAITIAN
          É   hó   / lón.   FONGBE
          'He barked/jumped.'
      b.   *Il   a   aboyé / sauté.*   FRENCH
          'He barked/jumped.'   (=(3) in Lefebvre 1998a: 249)

As is pointed out in Lefebvre (1998a: 249), the range of single-variable verbs is smaller in Fongbe than in French and Haitian. This is because a concept rendered by a single-variable verb in Haitian and French is sometimes expressed by a light verb construction or an inherent object verb in Fongbe (see below). Single-variable predicates also include WEATHER verbs, some verbs selecting expletive subjects, some raising verbs, and existential verbs.These will be discussed below.

The second type of argument structure consists in two-variable (or transitive) verbs as in *He ate bread*. All three languages have a large class of these verbs.

Finally, all three languages have three-variable (or ditransitive) verbs. These include predicates of transfer such as 'to give'. In Haitian and Fongbe, these predicates are rendered by a double-object construction, as in *John gave Mary a book*, or a serial verb construction. As will be shown below, French does not have such constructions and three-variable predicates are rendered by a construction of the type *John gave a book to Mary*. Three-variable predicates also include some control verbs, discussed below. It will be shown that the properties of Haitian and Fongbe verbs are quite similar and contrast with those of the corresponding French verbs.

3.3.2.2. BODY-state verbs

In Haitian, BODY-state expressions such as *I have a headache* are built on the model BODY-part + VERB + PRONOUN, as shown in the following examples.

(47) a.   *Vant   mwen   ap   fè   m   mal.*   HAITIAN
            stomach   me   IMP   do   me   hurt
            'I have a stomachache.' [Lit.: 'My stomach hurts me.']
                                                        (=(29) in Koopman 1986)

    b.   *Tèt   mwen ap   fè   m   mal.*   HAITIAN
             head   me   IMP do   me   hurt
             'I have a headache.'   (=(29) in Koopman 1986)

    c.   *Dan ap   manje   m.*   HAITIAN
             tooth at   eat   me
             'I have a toothache.' [Lit.: 'My tooth is eating me.']
                                        (=(4c) in Lefebvre 1998a: 250)

French also allows BODY-state expressions on the model of the Haitian ones

in (47). For example, it is possible to say *L'estomac me brûle* (lit.: 'The

stomach burns me'), *La tête me fait mal* (lit.: 'The head hurts me').

However, BODY-state expressions are typically built on the model *X HAVE*

PAIN at BODY-PART.

(48) a.   *J' ai   mal   à   la   tête.*   FRENCH
            I   have pain at   DEF head
            'I have a headache.'

    b.   *J' ai   mal   au   ventre.*   FRENCH
            I   have pain at   belly
            'I have a stomachache.'

    c.   *J' ai   mal   aux   dents.*   FRENCH
            I   have pain at   teeth
            'I have a toothache.'   (=(5) in Lefebvre 1998a: 250)

The French expressions in (48) have no counterpart in Haitian. As is pointed

out by Koopman (1986), the structure of the Haitian expressions in (47) is

similar to corresponding expressions in the West African languages, which

are also built on the model BODY-part + VERB + PRONOUN. Examples from

Fongbe are provided in (49).

(49) a.   *Xómè wlí   mì.*   FONGBE
            stomach hold   me
            'I have a stomachache.' [Lit.: 'My stomach is holding me.']

    b.   *Tà   ɖù   mì.*   FONGBE
            head eat   me
            'I have a headache.' [Lit.: 'My head is eating me.']

    c.   *À ɖú ɖò   ɖùɖù   mì   wè.*   FONGBE
            tooth be.at eat   me   POST
            'I have a toothache.' [Lit.: 'My tooth is eating me.']
                                 (=(6) in Lefebvre 1998a: 251)

BODY-state verbs in Haitian (see (47)) and Fongbe (see (49)) typically select BODY-parts as their subject. This contrasts with French BODY-state verbs, which typically take a pronominal subject (see (48)). This should come as no surprise given the relexification hypothesis.

3.3.2.3. WEATHER verbs

As has been pointed out by Koopman (1986) and documented in detail by Dumais (1988), Haitian expresses various atmospheric phenomena by means of a construction that uses verbs (which occur in other contexts as well) selecting a lexical subject referring to a natural element. This is shown in (50).

(50)   a.   *Lapli tonbe*.   HAITIAN
            rain   fall
            'It is raining.' [Lit.: 'Rain falls.']   (=(1) in Dumais 1988)
    b.   *Laglas*   *tonbe*.
                 HAITIAN
            ice   fall
            'It is hailing.'
            [Lit.: 'Ice falls.']   (=(2) in Dumais 1988)
    c.   *Yon ti-   van vante*.   HAITIAN
            a   little   wind   wind
            'It is windy.'
            [Lit.: 'The wind winds.']   (=(3) in Dumais 1988)
    d.   *Lòraj   gwonde*.
            HAITIAN
            storm   growls
            'It is thundering.'
            [Lit.: 'The storm growls.']   (=(4) in Dumais 1988)
    e.   *Lapli ap   farinen*.   HAITIAN
            rain   IMP   drizzle
            'It is drizzling.' [Lit.: 'Rain is drizzling.']
                                      (from Valdman *et al.* 1981)

Both authors point out that the above Haitan data contrast with French, where the same concepts are rendered by means of WEATHER verbs selecting an expletive subject, as shown in (51). An expletive subject is not allowed in Haitian in the context of the WEATHER verbs in (50).

(51) a. *Il pleut.*   b. *Il grêle.*   FRENCH
      'It is raining.'   'It is hailing.'
      c. *Il vente.*   d. *Il fait un orage./Il tonne.*   FRENCH
      'It is windy.'   'It is stormy./It is thundering.'
      e. *Il bruine.*   FRENCH
      'It is drizzling.'

As is pointed out in Lefebvre (1998a: 252), some French expressions built on the model of the Haitian ones in (50) may be grammatical; for example, one may find *La pluie tombe* 'Rain is falling', *L'orage gronde* 'The storm is growling' but not **Un petit vent vente* 'A little wind is blowing' nor **La bruine bruine* 'Drizzle is drizzling.' As the translations show, however, these expressions can only be interpreted literally. Furthermore, the first two expressions can only be used in specific contexts for stylistic effects (e.g. in poetry). The standard way of using WEATHER verbs in Haitian (see (50)) thus differs from the standard way of using WEATHER verbs in French (see (51)). Again, the properties of the Haitian WEATHER expressions will be shown to follow the pattern of the substratum languages.

Koopman (1986: 245) points out that WEATHER verbs selecting an expletive subject do not exist in West African languages any more than they do in Haitian. On the basis of examples from Vata and Abe, she shows that West African languages generally express the various atmospheric phenomena in a construction involving verbs (that occur in other contexts as well) selecting a lexical subject referring to a natural element. The Fongbe data in (52) illustrate this pattern.

(52) a.   *Jí   jà.*   FONGBE
            rain   falls
            'It is raining.' [Lit.: 'Rain falls.']   (=(1) in Dumais 1988)
      b.   *Láglásì   jà.*   FONGBE
            ice   fall
            'It is hailing.' [Lit.: 'Ice falls.']   (=(2) in Dumais 1988)

c.	*Jòhɔ̀n nyì.*		FONGBE
	wind blow		
	'It is windy.'		(=(3) in Dumais 1988)
d.	*Hɛ̀byòsò dó-gbè.*		FONGBE
	thunder growl		
	'It is thundering.'		(=(9d) in Lefebvre 1998a: 252)
e.	*Jí ɖè-àtán.*		FONGBE
	rain drizzle		
	'It is drizzling.'		(=(9e) in Lefebvre 1998a: 252)

The Haitian expressions in (50) are built on the model of expressions in the West African languages like those in (52). The data in (50) and (52) reflect the selectional properties of the verbs involved. In both Haitian and Fongbe, but not in French, verbs meaning 'to fall', 'to be windy', 'to thunder', 'to drizzle' take an argument which is a natural element such as 'rain'/'ice'/'wind', etc. The Haitian facts are predicted by the relexification hypothesis. (For further discussion, see Lefebvre 1998a: 253.)

3.3.2.4. *Reflexive verbs*

Recall from section 3.3.1.3 that, in Haitian, a reflexive interpretation may be induced by a pronoun + SELF (where SELF is phonologically null), *tèt-* + PRONOUN (lit.: 'X's head'), or *kò-* + PRONOUN (lit.: 'X's body'). A few verbs also allow for a reflexive interpretation (without any overt reflexive form) when their internal argument is not realised in the syntax (e.g. *abiye* 'to dress oneself'). Recall also that the various ways of encoding reflexivity in Haitian come from various substratum languages. This suggests that more than one reflexive form may be selected by a given verb in Haitian. As is shown in the literature on Haitian, this is the case (see Carden and Stewart 1988; Faine 1937; Goodman 1964; Sylvain 1936). As is shown in Brousseau (1995b), there are even verbs (e.g. *blese* 'to hurt') which may select all four forms. The same situation is also observed in other Caribbean

creoles (see Muysken and Smith 1995). Lefebvre (1998a: 255) points out that this is probably due to the fact that, as we saw in section 3.3.1.3, the different reflexive forms found in a given creole have been transferred into it from a variety of substratum languages through relexification. Since each individual substratum language has a different subset of the total inventory of forms found in the substratum languages as a group, the prediction is that the subcategorisation properties of verbs (considered as a whole) for reflexive forms in a given creole should not necessarily match those of the corresponding verbs in any of the substratum languages taken individually. Brousseau's (1995b) comparison of the subcategorisation properties of verbs for reflexive forms in Haitian and Fongbe shows that this prediction is borne out. Lefebvre (1998a: 253–262) extensively argues that this situation follows from the relexification hypothesis and subsequent levelling.

3.3.2.5.   *Verbs licensing expletive subjects*

As we saw in section 3.3.1.2.4, all three languages under comparison allow for expletive subjects. In Lefebvre (1998a: 259–260), it is shown that the verbs allowing for expletive subjects are the same in all three languages (i.e. 'to seem', 'to remain', 'to be missing', 'to be good'). In addition to having an overt expletive, Haitian and Fongbe, but not French, have a covert one, as we saw in section 3.3.1.2.4. Are the selectional properties of verbs the same in Haitian and Fongbe with respect to overt/covert expletives? Lefebvre (1998a: 261–262) shows that only two out of seven pairs of Haitian/Fongbe verbs have the same selectional properties. The other pairs show various type mismatches, and more Haitian verbs allow for a null expletive. Considering that the covert expletive option is a property of

Haitian inherited from the substratum languages, the latter observation may be considered surprising. It is suggested that there is probably variation across Haitian speakers and across West African languages with respect to which kind of expletive subjects (overt or covert) verbs select. This is an area of the lexicon where dialect levelling is likely to occur. As is pointed out in Lefebvre (1998a: 262), further documentation of the pertinent facts needs to be done.

3.3.2.6. Raising verbs

Verbs which licence expletive subjects also allow for argument raising to subject position. Argument raising may proceed from an object position, as in *An apple remains in the basket* (<*There remains an apple in the basket*), or from an embedded subject position, as in *John seems to be sick* (<*It seems that John is sick*). These will be discussed in turn.

As will be shown below, with respect to object-to-subject raising, Haitian and French differ, and Haitian is patterned after Fongbe. In Haitian, the argument of the verb *rete* 'to remain/to be left over' may appear in two surface positions, as is shown in (53). In the (a) sentence, the argument follows the verb and the subject position is optionally filled with the expletive pronoun *li*. In the (b) sentence, the argument appears in the subject position and the object position is empty.

(53) a.   *Li rete   yon sèpan* (*nan pannye an*).   HAITIAN
          it   remain a   snake in   basket   DEF
          'There remains a snake (in the basket).'
                                             (=(14) in Dumais 1988)
     b.   *Yon sèpan rete   nan pannye an.*   HAITIAN
          a   snake be.left.over   in   basket   DEF
          'A snake remains in the basket.'
                                             (=(15) in Dumais 1988)

Dumais (1988) points out that the Haitian data in (53) contrast with the French data involving the verb *rester* 'to remain'. As is shown in (54a), the argument of the French verb *rester* appears in the position following the verb and the subject position is obligatorily filled by the expletive form *il*. The ungrammaticality of the (b) sentence shows that the argument of *rester* cannot appear in the subject position when the verb establishes a locative relation.

(54)   a.   *Il reste un serpent dans le panier.*   FRENCH
             it remain a   snake in   DEF basket
             'There remains a snake in the basket.'
       b.   **Un serpent reste dans le panier*   FRENCH
             a   snake remain in   DEF basket
                           (=(30) in Lefebvre 1998a: 263)

The ungrammaticality of the French sentence (54b) contrasts with the grammaticality of the Haitian sentence (53b). Thus, although the French verb *rester* is the phonetic source of *rete*, it did not contribute its syntactic properties. These properties, however, may be argued to come from the substratum languages. For example, in Fongbe, there is a verb *kpò*, which means both 'to remain' and 'to be left over' (Segurola 1963). As is the case in Haitian, the argument of this verb may occupy two surface positions. In (55a), it occurs after the verb and the subject position is filled with the pleonastic form *é*. In (55b), it occurs in the verb's subject position.

(55)   a.   *É kpò dàn ɖókpó (ɖò xàsùn ɔ́ mὲ).*   FONGBE
             it remain snake one   (be.at basket DEF in)
             'There remains a snake in the basket.'
                             (=(14) in Dumais 1988)
       b.   *Dàn ɖókpó kpò (ɖò xàsùn ɔ́ mὲ).*   FONGBE
             snake one   remain (be.at basket DEF in)
             'A snake remains in the basket.'
                             (=(15) in Dumais 1988)

As Dumais (1988) shows, in Fongbe, the locative phrase is optional regardless of the surface position of the argument. The optionality of the

locative phrase in (55b) contrasts with its obligatoriness in the Haitian example in (53b). Except for this difference, however, both Haitian *rete* and Fongbe *kpò* allow the argument to occupy two surface positions. It thus appears that the syntactic properties of the Haitian verb *rete* follow those of the corresponding verb *kpò* in the substratum language rather than those of the French verb *rester* which is its phonetic source. Similar data involving the verbs meaning 'to be missing' in the three languages under comparison present a similar pattern: while the Haitian and Fongbe verbs allow object to subject raising, the French verb does not (see Lefebvre 1998a: 262–269).

As for subject to subject raising, French is like English in allowing it only out of an infinitival clause. As is extensively discussed in Lefebvre (1988a: 266–269), based on Dumais (1988), Massam (1989) and Law (1992), Haitian is like Fongbe, allowing subject raising out of tensed clauses. Massam (1989) observes that the type of subject raising manifested in Haitian (and in Fongbe) is extremely rare. This makes it a marked phenomenon. The fact that parallel data exist in Fongbe shows that a marked feature of the substratum language has been transferred into the creole. On the assumption that subject raising out of an infinitival clause is the unmarked option, we are left with the fact that Haitian has retained the marked option from the substratum languages instead of adopting the unmarked option from the superstratum language. The syntactic properties of the Haitian raising verbs thus appear to follow in a straightforward way from the relexification hypothesis.

3.3.2.7. Existential verbs

A detailed comparison of the three existential verbs in the languages under comparison in Lefebvre (1998a: 269–271) shows that the Haitian existential verb *gen* has properties that differ from the corresponding verbs in both of its source languages. Given that the properties of *gen* resemble neither those of French nor those of Fongbe, we may ask whether they could be derived from an equivalent lexical entry in some other West African language. Koopman (1986:!248) points out, however, that no West African language has a form with the properties of Haitian *gen*. Following the methodology adopted for the research, we therefore have to conclude that *gen* is an innovation. This conclusion is in agreement with that in DeGraff (1992b).

3.3.2.8. Control verbs

Control verbs are verbs which allow an argument of a matrix sentence to be coindexed with an empty argument position in the complement clause of the matrix verb. The three-way comparison of Haitian, French and Fongbe shows striking similarities between Haitian and Fongbe, both of which contrast with French in the same way.

Two-variable Haitian control verbs of the WANT-class may select either a tensed or an infinitival complement. For example, the tensed complement of *vle* 'to want' is introduced by the complementiser *pou* (see section 3.3.5.2). The embedded subject may be either coreferential with the matrix subject or disjoint in reference from it (see Koopman 1986; Sterlin 1988, 1989). This is shown in (56).

(56)   *Li* ᵢ   *vle*   *pou*   *l* ᵢ/ⱼ   *vini.*   HAITIAN
  he want COMP he come
  'He wants to come.' or 'He wants him to come.'
            (=(18b) in Koopman 1986)

Koopman (1986:!240) points out that only one of the two interpretations available in Haitian is available in French. In contrast to Haitian, the tensed complement of *vouloir* 'to want' only allows for disjoint reference of the subject, as shown in (57).

(57)   *Il* ᵢ   *veut*   *qu'*   *il* ⱼ   *vienne.*   FRENCH
  3rd want COMP 3rd come
  'He wants him to come.'/#'He wants to come.'
            (=(15b) in Koopman 1986)

The Haitian data in (56) are, however, parallel to the Fongbe data. The Fongbe verb *jló* 'to want', in (58), selects a tensed complement introduced by the form *nú*, which corresponds to Haitian *pou* (see section 3.3.5.2). As is the case in Haitian, the embedded subject can be either coreferential with the matrix subject or disjoint in reference from it.

(58)   *É* ᵢ   *jló*   *nú*   *é* ᵢ/ⱼ   *ní*   *yì.*   FONGBE
  3rd want COMP 3rd SUB leave
  'He wants to leave.' or 'He wants him to leave.'
          (=(49) in Lefebvre 1998a: 272)

Koopman (1986:!241) provides similar examples from Vata and Akan, other substratum languages of Haitian. Thus, the Haitian verbs of the WANT-class do not have the syntactic properties of the French verbs that they were phonologically derived from. They do, however, have the same properties as the Fongbe verbs that they were relexified from.

   In all three languages under comparison, verbs of the WANT-class may also take an infinitival complement in which the matrix subject binds a position in the embedded clause (for Haitian, see Koopman 1986; Sterlin 1988, 1989; for Fongbe, see Kinyalolo 1992, Lefebvre 1993a). In the

examples in (59), the controlled position is represented as PRO, a label which stands for an abstract pronoun that is not pronounced but that has referential properties.

(59) a.   *Jan*ᵢ *vle* PROᵢ *kraze* *manchin-nan.*   HAITIAN
          John want   destroy car   DEF
          'John wants to destroy the car.'
                               (=(50a) in Lefebvre 1998a: 272)

      b.   *Jean*ᵢ *veut* PROᵢ *détruire l'*   *auto.*   FRENCH
          John want   destroy DEF   car
          'John wants to destroy the car.'
                               (=(50b) in Lefebvre 1998a: 272)

      c.   *Kɔ̀kú*ᵢ *jló* PROᵢ *ná*   *gbà*   *mótò ɔ́.*   FONGBE
          Koku want   DEF.FUT destroy car   DEF
          'Koku wants to destroy the car.'
                               (=(50c) in Lefebvre 1998a: 272)

The most interesting facts about the infinitival complements of verbs of the WANT-class in the three languages under comparison are shown in (60). In addition to taking an infinitival complement of the type in (59), both Haitian and Fongbe verbs, but not the French verb, may select an infinitival complement containing an overt subject. Unlike the embedded covert subject in (59), however, the embedded overt subject in (60) must be referentially disjoint from the matrix subject.

(60) a.   *Li*ᵢ *vle* *l*ⱼ   *vini.*   HAITIAN
          'He wants him to come.'   (=(8) in Sterlin 1988)

      b.   **Il* *veut* *lui*   *venir*   FRENCH
          [Lit.: 'He wants him to come.']
                               (=(51b) in Lefebvre 1998a: 273)

      c.   *É*ᵢ   *bà* *è*ⱼ *yì.*   FONGBE
          'He wants him to come.' (=(51c) in Lefebvre 1998a: 273)

In Lefebvre (1998a: 272–276, and the references therein), it is extensively argued that the Haitian and Fongbe data in (60) can be accounted for in a unified way: the subject of the embedded clause is assigned accusative case by the matrix verb under Exceptional Case Marking.

Thus, while French verbs of the WANT-class can select only one type of infinitival complement (without an overt subject), both Haitian and Fongbe select two types of such complements. In the first type, there is no overt subject but the subject of the embedded verb is understood as being coreferential with that of the matrix clause (see (59)). In the second type, there is an overt subject and, in both languages, this subject must be referentially disjoint from the matrix subject (see (60)). The selectional properties of Haitian verbs must follow from the relexification hypothesis. Furthermore, the availability of an overt subject is attributable to the fact that the Haitian and Fongbe verbs can assign accusative case to the subject of the embedded clause, a property that French verbs do not have. This syntactic property of Haitian verbs must follow from the relexification hypothesis since it is a property of substratum but not superstratum verbs.

As for the selectional properties of three-variable control verbs, such as 'to promise', 'to ask/request', in Haitian, French and West African languages, Koopman (1986:!242) remarks: "The picture that emerges is clear: although the phonetic shape of the Haitian verbs is clearly derived from French, their selectional properties are rather different from those of French, and strikingly similar to those observed in West African languages." Data illustrating this state of affair are provided in Lefebvre (1998a: 276–278).

The data show that three-place control verbs in Haitian and Fongbe share the same selectional properties and contrast with the corresponding French verbs. This follows straightforwardly from the relexification hypothesis. Koopman (1986:!240) further remarks that three-place control verbs corresponding to French verbs such as *convaincre* 'to convince',

ordonner 'to order', and *persuader* 'to persuade' are difficult or impossible to find in both Haitian and the West African languages. This gap in the Haitian lexicon also follows from the relexification hypothesis: the creators of Haitian simply did not have such lexical entries to relexify.

While the selectional properties of Haitian control verbs differ from those of the corresponding French verbs, they are the same as those of the Fongbe verbs. In both Haitian and Fongbe, but not in French, the subject of the tensed complement of verbs of the WANT-class may be coreferential with the matrix subject. In both Haitian and Fongbe, but not in French, verbs of the WANT-class may select an infinitival complement with an overt subject which is assigned accusative case by the main verb under Exceptional Case Marking. Finally, three-variable control verbs in Haitian and Fongbe share properties which distinguish them from French. The syntactic properties of Haitian verbs thus must have been transferred into the creole through relexification.

3.3.2.9. Light verbs

Light verb constructions involve a verb and an object as in *take a walk* in English. A major characteristic of these constructions is that the verb contributes very little to the semantics of the construction; rather, it is the object that is determinative. All three languages under comparison have light verb constructions, as shown in (61).

(61) FONGBE   FRENCH   HAITIAN
      fùn àhwàn   *faire la guerre*   *fè lagè*   'make war'

In Fongbe, however, there are a number of light verb constructions which correspond to simplexes in French and Haitian. Examples are provided in

(62). The Fongbe data are from Brousseau (1988), the Haitian data from my own field notes.

(62) FONGBE   FRENCH   HAITIAN
      wà   àzɔ̀   *travailler*   *travaye*   'to work'
      'do   work'
      kú   tɔ̀   *se noyer*   *nwaye*   'to drown'
      'die   river'
      jὲ   tàgbà   *s'inquiéter*   *enkyete*   'to worry'
      'fall problem'
      jὲ   àkpà   *se blesser*   *blèse*   'to hurt oneself'
      'fall wound'
      dó   gàn   *enchaîner*   *anchènnen*   'to chain up'
      'plant metal'
      jì   hàn   *chanter*   *chante*   'to sing'
      'give birth song'
      sú   xò   *crier*   *kriye*   'to shout'
      'close speech'
      blá   nù   *jeûner*   *jennen*   'to fast'
      'tie mouth'
      kán   wèzùn   *courir*   *kouri*   'to run'
      'pick up run'   (=(62) in Lefebvre 1998a: 279)

The question here is whether the data in (62) constitute evidence for or against the relexification hypothesis. The answer to this question rests on whether light verbs and their objects constitute lexical entries or not.

In the recent literature, light verbs have been analysed as complex predicates listed in the lexicon (e.g. Cattell 1984; Grimshaw and Meister 1988; Travis in press). On the basis of phonological and syntactic arguments (e.g. various types of extraction facts), Brousseau (1988) extensively argues that the objects of the light verbs in (62) differ from ordinary objects. She concludes that Fongbe light verb constructions must therefore be listed in the lexicon. Since they are listed in the lexicon, they should undergo relexification. How does relexification proceed in this case? Substratum speakers who had lexical entries like the Fongbe ones in (62) searched in the superstratum language for phonetic strings to relabel the

lexical entries copied from their own lexicon. They found the French simplexes in (62) and used them for this purpose, yielding the Haitian lexical entries in (62). The fact that simplexes in the superstratum language may be used to relabel light verb constructions during relexification is in line with the analysis that these constructions constitute lexical entries. In turn, this is additional evidence for analyses holding that light verb constructions are complex predicates that are listed in the lexicon. This conclusion is further reinforced by the fact that, when both the substratum and superstratum languages encode a notion with a light verb construction, the creole ends up with a light verb construction as well, as shown in (61).

3.3.2.10. Inherent object verbs

Inherent object verbs are verbs which are semantically autonomous. Unlike the objects of light verbs, their objects do not contribute to the meaning of the verb itself. These verbs can take different types of objects, but they cannot surface without an overt object of some kind. When no specific object is intended, these verbs will appear with the typical object that is appropriate for a given verb, or an object meaning 'thing'. Fongbe has several such verbs. Their objects may be cognate to the verb, as in *nɔ̀ ànɔ̀* (lit.: 'suck breast') 'to suckle', or not, as in *kùn hún* (lit.: 'drive vehicle') 'to drive'. On the basis of data from English, Massam (1990) argues that cognate objects behave like ordinary objects and consequently cognate object verbs are listed in the lexicon independently of their object. Based on Fongbe data, Brousseau (1988) argues that the objects of inherent object verbs share syntactic characteristics with ordinary direct objects, whether or not they are cognate to the verb. Her conclusion is thus the same as

Massam's. These analyses predict that, in relexification, inherent object verbs will be relexified independently of their objects. Since the property of taking an inherent object is a property of verbs, we expect the Haitian verbs corresponding to inherent object verbs in the substratum to reproduce this property. Is this prediction borne out by the data?

In Lefebvre (1998a: 280), it is shown that this prediction is only partially born out by the data, as only three Haitian verbs follow the pattern of the substratum language, requiring an inherent object (see (63a)). In (63b) the inherent objects of the substratum verbs are not reproduced in the creole any more than the cognate objects in (63c).

	FONGBE	FRENCH	HAITIAN	
(63)				
a.	*gbɔ̀ àzɔ̀n* 'calm disease'	*calmer douleur*	*kalme doulè*	'to heal'
	nyà gbé 'hunt animals'	*chasser*	*chase bèt*	'to hunt'
	ɖùn sín 'draw water'	*puiser*	*tire dlo* 'draw water'	'to draw (water)'
b.	*kùn hún* 'drive vehicle'	*conduire*	*kòndwi*	'to drive'
	ɖù nú 'eat thing'	*manger*	*manje*	'to eat'
	zà àyí 'sweep ground'	*balayer*	*bale*	'to sweep'
c.	*nɔ̀ ànɔ̀* 'suck breast'	*téter*	*tete*	'to suckle'
	ɖɔ̀ àɖɔ̀ 'pee piss'	*pisser*	*pise*	'to pee'
	kpέn àkpέn 'cough cough'	*tousser*	*touse*	'to cough'
	ɖì àɖì 'believe belief'	*croire*	*kwè*	'to believe'
	kwín àkwín 'whistle whistle'	*siffler*	*sifle*	'to whistle'
	ɖù àɖù 'eat food'	*gagner*	*genyen*	'to win'

(=(63) in Lefebvre 1998a: 280–281)

In Lefebvre (1998a: 281), it is proposed that the difference between the Fongbe verbs in (63a and b) and their corresponding verbs in French and in

Haitian may best be stated in terms of their transitivity properties: whereas the Fongbe verbs are necessarily transitive, the Haitian and French verbs may also be used intransitively. Lefebvre (1998a: 282–283) provides a theoretical account of discrepancy between Fongbe, on the one hand, and Haitian and French, on the other hand. She concludes that, with regard to this property, Haitian follows the option of the superstratum language rather than that of the substratum language.

3.3.2.11. The case-assigning properties of verbs

A comparison of the case properties of some hundred triplets of verbs in Lefebvre (1998a: 283–287) shows that the case-assigning properties of Haitian verbs are quite free as compared with the corresponding verbs in both its superstratum and substratum languages. A discussion of why this should be the case can be found in Lefebvre (1998a: 286).

3.3.2.12. Double-object verbs

John sent Mary a letter is an example of the recipient-theme construction (NP NP), whereas *John sent a letter to Mary* is an example of the theme-locative construction (NP PP). Like West African languages, Haitian Creole has the recipient-theme construction (e.g. Koopman 1986; Lumsden 1994; Veenstra 1992). It is a well-documented fact, however, that French does not (e.g. Kayne 1984; Tremblay 1991). Fongbe, however, does have the recipient-theme construction (e.g. Lefebvre 1994c). The contrast between the three languages is illustrated in (64), (65) and (66).

(64)   *Mwen bay / montre Pòl   liv   la.*   HAITIAN
        I   give / show   Paul book the
        'I gave/showed Paul the book.'

(=(19) and (25b) in Lumsden 1994)

(65) a.   *J' ai   donné / montré Paul le   livre   FRENCH
           I   AUX   give   / show   Paul DEF book
           [Lit.: 'I gave/showed Paul the book.']
                                              (=(81) in Lefebvre 1998a: 290)
      b.   J' ai   donné / montré le   livre à   Paul.   FRENCH
           I   AUX   give   / show   DEF book   to Paul
           'I gave/showed the book to Paul.'
                                              (=(82) in Lefebvre 1998a: 290)

(66) Kɔ̀kú ná   / xɛ́lɛ́ À síbá xwé   ɔ́.   FONGBE
      Koku give / show   Asiba house DEF
      'Koku gave/showed Asiba the house.'
                                              (=(1a, b) in Lefebvre 1994c)

These constructions are extensively discussed in Lefebvre (1998a: 287–301). In addition to addressing tests distinguishing between the NP NP and the NP PP constructions and the semantic differences between the two constructions, the discussion in Lefebvre considers the fact that Haitian Creole has a lot more double object verbs (NP NP) than Fongbe. This problem is addressed from the point of view of the case-assigning properties of the verbs involved in the construction.

3.3.2.13. Summary

The data reported on in this chapter show that the bulk of the syntactic properties of Haitian verbs take on the properties of the substratum language rather than those of the superstratum language. Hence, the properties of Haitian BODY-state, WEATHER-, raising and control verbs contrast with those of French and pair with those of the substratum languages. Furthermore, both Haitian and Fongbe have a class of double-object verbs in contrast to French, which does not. This situation follows directly from the relexification hypothesis. The selectional properties of Haitian reflexive verbs were shown to follow from relexification followed by

dialect levelling. The selectional properties of Haitian verbs that take overt/covert expletives do not perfectly match those of Fongbe; it is possible that dialect levelling has played a role in this case as well; but recall that the availability of a null expletive is a property of both Haitian and Fongbe, but not of French. The properties of the Haitian verb *gen* were hypothesised to result from an independent development within the creole. The subsets of verbs studied for case properties show that case-assigning properties constitute the syntactic properties that seem to be the most independent of the creole's source languages. The case-assigning properties of double-object verbs were shown to provide further support for this claim. The lack of inherent object verbs in Haitian was attributed to the influence of French. The conclusion is thus that, aside from a few exceptions, the bulk of the syntactic properties of Haitian verbs reproduce those of its substratum languages.

3.3.3. *Derivational affixes*

On the assumption that derivational affixes are listed in the lexicon as individual lexical entries that are minimally specified for categorial features and selectional and semantic properties (e.g. di Sciullo and Williams 1987; Lieber 1980, 1992; etc.) on the one hand, and on the hypothesis that relexification plays a central role in creole genesis, lexical entries of derivational affixes are expected to undergo relexification in a way similar to how nouns and verbs do. As is extensively argued for in Lefebvre (1998a: 303–334), the comparison of the derivational affixes of Haitian with those of its contributing languages does indeed show that their properties are

quite straightforwardly derivable from the process of relexification. The paragraphs below briefly summarise this analysis.

The inventory of the productive affixes of Haitian is as in Table 3.1. (Tests and methodologies for identifying a creole's productive affixes are extensively discussed in Lefebvre 1998a: 303–312, and the references therein. See also section 10.1 of this book.)

Table 3.1. The inventory of HC productive affixes

Agentive suffix	-è
base	V
output	N
Attributive suffix	-è
base	N
output	N
Verbalising suffix	-e
base	N
output	V
Inversive/privative prefix	de-
base	V
output	V
Diminutive prefix	ti-
base	N
output	N
Nominalising suffix	-ay
base	V
output	N
Conversion	–
base	V
output	N/A
Adverbial suffix	-man
base	A
output	Adv
Place of origin/residence suffixes	-wa/-yen
base	N
output	N
Ordinal suffix	-yèm
base	Q
output	A

(adapted from Lefebvre 1998a:!312)

Why is the Haitian inventory of derivational affixes the size it is? Why does Haitian have the particular affixes that it has?

The productive Haitian affixes with there semantically closest French equivalents are presented in Table 3.2. The French forms that are not in

parentheses are those hypothesised to have provided the phonetic matrices from which the phonological representations of the Haitian affixes were assigned; those in parentheses are forms that are synonymous, though they may differ as to subcategorisation and morphophonemic properties.

Table 3.2. The HC affixes and their closest French corresponding forms

	HAITIAN	FRENCH
Agentive suffix	*-è*	*-eur*
base	V	V
output	N	N
Attributive suffix	*-è*	*-eur* (*-ard, -ier, -ien*)
base	N	N
output	N	N
Verbalising suffix	*-e*	*-er, -é* (*-ir, -ifier, -iser*)
base	N	N/A
output	V	V
Inversive/privative prefix	*de-*	*dé-* (*é-, in-, ir-*)
base	V	V/A
output	V	V
Diminutive prefix	*tí-*	adjective *petit* [ti] (*-et, -ot, -on*)
base	N	N/A
output	N	N
Nominalising suffix	*-ay*	*-age* (*-ion, -ment, -ance, -ure*)
base	V	V
output	N	N
Conversion	–	– (*-i, -é, -ert, -u*)
base	V	V
output	N/A	N
Adverbial suffix	*-man*	*-ment*
base	A	A
output	Adv	Adv
Place of origin/residence suffixes	*-wa*/*-yen*	*-ois*/*-ien* (*-ais, -al, -and, -ain, -an*)
base	N	N
output	N	N
Ordinal suffix	*-yèm*	*-ième*
base	Q	Q
output	A	A

(adapted from Lefebvre 1998a: 313–4)

The data in Table 3.2 show that the derivational affixes of Haitian Creole all have at least one phonetically similar corresponding affix in French, except for the phonologically null affix (see below). But the most striking fact about the distribution in this table is that, in most cases, except for the agentive suffix and the phonologically null affix in cases of conversion, there

are several French affixes corresponding to a single Haitian affix (see also Brousseau, Filipovich and Lefebvre 1989:!18). For example, while French has several overt affixes converting verbs into nouns, Haitian has only one; similarly, while French has several affixes designating a place of origin, Haitian has only two. Why did the other French affixes not make their way into Haitian?

The Haitian affixes compare with the Fongbe ones (discussed in Lefebvre 1998a: 318–320, and the references therein), as in Table 3.3.

Table 3.3. The HC affixes and their Fongbe corresponding forms

	HAITIAN	FONGBE
Agentive suffix	*-è*	*-tɔ́*
base	V	V
output	N	N
Attributive suffix	*-è*	*-nɔ̀*
base	N	N
output	N	N
Verbalising suffix	*-e*	–
base	N	
output	V	
Inversive prefix	*de-*	*mà-*
base	V	V/A
output	V	V/A
Diminutive affix	*ti-*	*-ví*
base	N	N
output	N	N
Nominalising suffix	*-ay*	copy prefix
base	V	V
output	N	N
Conversion	–	copy prefix
base	V	V
output	N/A	N/A
Adverbial suffix	*-man*	–
base	A	
output	Adv	
Place of origin/residence suffixes	*-wa*/*-yen*	*-tɔ́*/*-nù*
base	N	N
output	N	N
Ordinal suffix	*-yèm*	*-gɔ́ɔ́*
base	Q	Q
output	A	A

(adapted from Lefebvre 1998a: 320–1)

The Haitian and Fongbe derivational affixes in Table 3.3 differ in their phonological representation and they may also differ in their position with respect to the base they attach to. As we saw in section 3.1, these properties of the Haitian affixes appear to have been largely provided by the superstratum language. In spite of these differences, however, there is a striking resemblance between the two inventories: in most cases, there is a one-to-one correspondence between the Haitian and Fongbe affixes. In both languages, there is one agentive, one attributive, one inversive, one diminutive and one ordinal affix. It is a remarkable fact that, in both Haitian and Fongbe, there are exactly two suffixes referring to a place of origin/residence. Furthermore, Haitian -*ø* is involved in both nominal and adjectival conversion, two constructions which require the copy prefix in Fongbe. The correspondence between the Haitian and Fongbe affixes enumerated above contrasts with the Haitian/French data compared in Table 3.2, where it was shown that the majority of the Haitian affixes correspond to more than one affix in French. How can the correspondences between the Haitian and Fongbe lexical entries be accounted for?

The similarity between the Haitian and Fongbe inventories in Table 3.3 can be accounted for in terms of the relexification hypothesis. The Haitian verbalising suffix -*e*, as well as the adverbial suffix -*man* have no counterpart in the substratum languages. They are analysed as innovations triggered by French morphology. (For a discussion of how relexification proceeds in the case of derivational affixes, of how the position of the morphological head is established in creole genesis, and of cases of dialect levelling in this area of the lexicon, see Lefebvre 1998a: 303–334, and the references therein. See also chapter 10 of this book.) Finally, in Lefebvre

(1998a: 303–334; 403–407), it is extensively argued that the derivational affixes of Haitian are concatenated with their bases in a way which patterns on the substratum languages rather than the superstratum language.

3.3.4. *Functional category lexical entries involved in nominal structure*

This section summarises the comparison of Haitian, French and Fongbe facts pertaining to the functional category lexical entries involved in nominal structure. The data in (67) provide an overview of French nominal structure. They show that, in this language, the definite, the possessive, and the demonstrative determiners all precede the head noun, and that there can be only one of these per noun phrase. Singular and plural forms are contrasted in (b) showing that plural is encoded in a bound morpheme in French.

(67) a. *le   mon ce   crabe   FRENCH
          DEF POSS DEM crab

      b.   ⎰ le/les   ⎱   crabe(s)   FRENCH
              ⎨ mon/mes   ⎬
              ⎱ ce/ces   ⎰

          '   ⎰ the   ⎱   crab(s)'
              ⎨ my   ⎬
              ⎱ this ⎰   (=(2) in Lefebvre 1998a: 78)

The Haitian and Fongbe nominal structures are illustrated in (68). In both languages, the determiners all follow the head noun. In both languages, a possessor phrase, a demonstrative term, the definite determiner and the plural marker may all co-occur within the same nominal structure. In both languages, the plural marker is an independent morpheme, as is shown in (68).

(68) *krab* [*mwen* ø] *sa* *a* *yo*   HAITIAN
      àsɔ́n [*nyɛ̀* *tɔ̀n*] *élɔ́* *ɔ́* *lɛ́*   FONGBE
      crab me   GEN DEM DEF PL
      'these/those crabs of mine (in question/that we know of)'
                                                (=(1) in Lefebvre 1998a: 78)

The Haitian and Fongbe nominal structures thus contrast in the same way with the French nominal structure with respect to word order, co-occurrence restrictions of determiners, and with respect to whether the plural marker is a free (in Haitian and Fongbe) or a bound (in French) morpheme. In the following sections, the properties of the definite determiner, the plural marker, the indefinite determiner, the deictic terms, and the case markers occurring within the noun phrase will be discussed in turn.

3.3.4.1. The definite determiner

The definite determiners of Haitian and Fongbe are shown in (69) and (70), respectively.

(69) *larivyè* *a*   HAITIAN
      river   DEF
      'the river (in question/that we know of)'

(70) *ví* *ɔ́*   FONGBE
      child DEF
      'the child (in question/that we know of)'

With the exception of their phonological representations, the properties of the definite determiners are the same in Haitian and in Fongbe; these properties contrast in a systematic way with those of the French definite determiner. These contrastive properties are summarised in (71) based on the detailed description in Lefebvre (1998a:!79–84).

(71) FRENCH   HAITIAN/FONGBE
      [+ definite] determiner   [+ definite] determiner

      – pre-nominal   – post-nominal
      – marked for gender   – unmarked for gender and
        and number   number
      – allomorphs: *le/la/les/l'*   – allomorphs: *la*, *a*, *an*, *nan*,
                                         lan/ɔ̃,ɔ̃n
      – anaphoric and cataphoric   – anaphoric
      – partitive *du/des*   – no partitive forms
      – obligatory with generic   – impossible with generic
        or mass nouns   or mass nouns
      – no bare NPs   – bare NPs
      – *Det [relative clause] N   – N [relative clause] Det

Moreover, the definite determiners involved in the Haitian and Fongbe nominal structures also play a crucial role in the clause structure of these two languages. In this case, the determiner has scope over the event denoted by the clause. This is exemplified in (72).

(72) a.   *Li   rive   a*   HAITIAN
      b.   *É   wá   ɔ́*   FONGBE
           'He has arrived' (as expected/as we knew he would)

The French definite determiner plays no role at all in the clause structure. The determiner in the clause will be further discussed in section 3.3.5.9. Furthermore, as will be seen in section 3.4.6, the same determiner may occur in verb-doubling constructions in both Haitian and in Fongbe. These constructions have no equivalent in French.

In Lefebvre (1998a: 82–84), it is argued that the postposed definite determiner of the substratum languages has been relabelled on the basis of the French deictic adverbial *là* occurring after noun phrases and clauses. It is also argued that if the two lexical entries that are associated in relexification share some properties, they are far from being identical.

3.3.4.2. The plural marker

A Haitian or Fongbe nominal structure may contain a noun followed by the plural marker only, as is shown in (73). In such a case, the structure is interpreted as definite.

(73) *krab yo*   HAITIAN
      àsɔ́n lɛ́   FONGBE
      crab   PL
      'the crabs'
      *'(some) crabs'   (=(31) in Lefebvre 1994a)

Comparable data are impossible in French. The data in (74) show that Haitian and Fongbe both allow for bare NPs.

(74) *M'   achte krab.*   HAITIAN
      N'   xɔ̀   àsɔ́n.   FONGBE
      I   buy   crab
      'I bought (some) crabs.'   (=(32) in Lefebvre 1994a)

Bare NPs are not allowed in French. The data in (75) show that, in both Haitian and Fongbe, when the definite determiner and the plural marker co-occur within the same nominal structure, the definite determiner must precede the plural marker.

(75) *krab la   yo / *yo a*[8]   HAITIAN
      *àsɔ́n ɔ́   lɛ́ / *lɛ́ ɔ́*   FONGBE
      crab   DEF PL   PL DEF
      'the crabs (in question)'   (=(33) in Lefebvre 1994a)

In both languages, there is variation among speakers with respect to the possibility of co-occurrence of the determiner and the plural marker. Crucially, the patterns of variation are the same in both languages. Two slightly different grammars have been reported on in the literature. They are summarised in (76).

(76)   HAITIAN   FONGBE

G$_1$ where *la* and *yo* can co-occur   where *ɔ́* and *lɛ́* can co-occur
       (d'Ans 1968:!105; Faine 1937:!83;   (Brousseau and Lumsden
       Fournier 1977:!43; Goodman 1964:   1992:!22; Lefebvre 1998a:!85)
       45; Joseph 1988:!201; Lefebvre
       and Massam 1988:!215; Ritter 1992:!
       207–209; Sylvain 1936:!55;
       Valdman 1978:!1994–1995)

G$_2$ where *la* and *yo* cannot co-occur   where *ɔ́* and *lɛ́* cannot co-occur
       (DeGraff 1992b:!107; Joseph   (Agbidinoukoun 1991:!149)
       1988:!201; Lumsden 1989:!65)

In spite of their remarkable similarity, Haitian *yo* and Fongbe *lɛ́* differ in that

yo, but not *lɛ́*, is also used as a third-person plural personal pronoun, as is

shown in (77).

(77)   a.   *krab   yo*   b.   *yo   pati*
            crab   PL   3rd.PL   leave
            'the crabs'   'they left'   (=(28) in Lefebvre 1998a: 85)

In Fongbe, the third-person plural personal pronoun is expressed by a

different morpheme, as shown in (78).

(78)   a.   *àsɔ́n   lɛ́*   b.   *yé   yì*
            crab   PL   3rd.PL   leave
            'the crabs'   'they left'   (=(29) in Lefebvre 1998a: 85)

In Lefebvre (1998a: 86–87), it is extensively argued that in spite of this

difference, Haitian *yo* has been created through relexification and dialect

levelling. In this analysis, the third person plural personal pronoun of the

substratum languages was relexified on the basis of the strong pronominal

French form *eux*, yielding *yo* (a predictable phonological derivation, as per

the analysis in Brousseau in preparation). The use of this form was extended

to the nominal structures following comparable lexical entries in other

substratum languages of Haitian such as Ewe, where the morpheme *wǒ*, the

third person plural pronoun, also encodes plural within the nominal

structure. (For a theoretical account of the use of the same morpheme in

these two environments, see Ritter 1992.) Speakers of languages of the Fongbe type who had two different morphemes, as in (78), had to conform to the dialect that had only one morpheme as a result of dialect levelling (for further discussion, see section 9.3).

3.3.4.3. The indefinite determiner

Fongbe has a postnominal indefinite determiner *ɖé*, as in *àsɔ́n ɖé* 'a crab'. Haitian has a prenominal indefinite determiner *yon*, as in *yon krab* 'a crab'. In Lefebvre (1998a: 88–89, and the references therein), it is shown that there was no French form available to relexify the substratum lexical entry. The Haitian prenominal numeral *younn* meaning 'one' is hypothesised to have been resyllabified as *yon* and reanalysed as a Haitian pernominal indefinite determiner.

3.3.4.4. The deictic terms

French has eleven deictic terms that can be involved in the nominal structure: *ce*(*t*) 'this/that', *cette* 'this/that', *ces* 'these/those', *ça* 'this/that', *cela* 'this/that', *ceci* 'this', *celui* 'this/that', *ceux* 'these/those', *celle*(*s*) 'this/that'; 'these/those', *là* 'there/here', *ci* 'here'. Speakers of Haitian divide into two groups with respect to the number of deictic terms: some speakers have two deictic terms and some have only one. These two lexicons will be discussed in turn. Haitian speakers who have two deictic terms in their lexicon pair with Fongbe speakers who also have two deictic terms. These are shown in (79).

(79) HAITIAN   FONGBE
      sa   (*é*)*lɔ́*
      sila   (*é*)*nɛ́*

In Lefebvre (1997, 1998a: 89–101), it is extensively argued that the two Haitian terms do have the same distributional and syntactic properties as the Fongbe corresponding ones. For example, as is shown in (68) the postnominal demonstrative terms of Haitian and Fongbe may occur within the same nominal structure as a possessor, the definite determiner and the plural marker. In both languages, they may appear in contexts where we expect an NP. In (80) (adapted from (4) and (26) in Lefebvre 1997), they appear as part of an argument of the verb. (In examples (80) and (81), the deictic terms are glossed as DEIC and they are translated as 'this/that'. More precise semantic interpretation patterns are identified in (82)).

(80) *M' wè – sa / sila.*   HAITIAN
      N' mɔ̀ – élɔ́ / éné   FONGBE
      I see one DEIC / DEIC
      'I saw this/that one.'   (=(4) in Lefebvre 1998b)

In (81) (adapted from (6) and (28) in Lefebvre 1997) they appear as part of the head of a relative clause. The examples also show that, when the head of the relative clause is plural, the deictic term is followed by the plural marker.

(81) a. – *sa yo ø-ki vini an.*   HAITIAN
          – *élɔ́ lɛ́ ɖé-é wá ɔ́*   FONGBE
          one DEIC PL OP-RES come DEF
          'These/those ones who came.'
      b. – *sila yo ø-ki vini an.*   HAITIAN
          – *éné lɛ́ ɖé-é wá ɔ́*   FONGBE
          one DEIC PL OP-RES come DEF
          'These/those who came.'

In (80) and (81) the head of the nominal structure determined by the demonstrative terms is phonologically null. This null head corresponds to 'one' in English. Arguments supporting this analysis are provided in Lefebvre 1998a: 91–97).

In Lefebvre (1998a: 91–97), it is extensively argued that the properties of the Haitian demonstrative terms discussed above differ from

those of all the French deictic terms. It is proposed that the Haitian deictic terms have been created through relexification of the substratum ones on the basis of French *ça* and *cela/celui-là* yielding Haitian *sa* and *sila*, respectively (Lefebvre 1998a: 97–101). This proposal also accounts in a straightforward way for the three semantic interpretation patterns of the two deictic terms identified in Lefebvre (2001a). These semantic patterns are reproduced in (82) as G1, G2 and G3, where α is a variable that ranges over + or −. Crucially, these patterns of interpretation are identical for Haitian and Fongbe.

(82) a. G1 *sa* [+ proximate] *sila* [− proximate] HAITIAN
           G2 *sa* [α proximate] *sila* [− proximate]
           G3 *sa* [α proximate] *sila* [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.

       b. G1 *(é)lɔ* [+ proximate] *(é)nɛ́* [− proximate] FONGBE
           G2 *(é)lɔ* [α proximate] *(é)nɛ́* [− proximate]
           G3 *(é)lɔ* [α proximate] *(é)nɛ́* [α proximate]

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

There are also Haitian speakers who have *sa* but not *sila* (e.g. Valdman 1996; Vilsaint 1992). As is discussed in detail in section 9.5, there are several substratum languages of Haitian that have only one general deictic term. There thus appears to be two Haitian lexicons!with respect to demonstrative terms: one that has two terms which can be assigned three different patterns of interpretation, and one that has one term used as a general deictic term. Each of these lexicons corresponds to a substratum lexicon: one that has two terms and three patterns of interpretation, and one that has one term used as a general deictic term.

3.3.4.5. Case markers within the noun phrase

The Fongbe case marker *tɔ́n* in (68) is glossed as genitive. Arguments supporting the analysis of *tɔ́n* as a genitive rather than as an objective case marker are provided by Brousseau and Lumsden (1992). Since case markers have no semantic content, they cannot be relabelled. The Haitian phonologically null case corresponding to Fongbe *tɔ́n* in (68) is glossed as genitive on the basis of arguments provided in Lumsden (1991). Both languages also have an objective case, overt in Fongbe, covert in Haitian. These facts are in harmony with the general perspective adopted in our account of creole genesis are discussed at length in Lefebvre (1998a: 101–110, and the references therein).

3.3.4.6. Summary

The data discussed in this section show that the creators of Haitian did not perceive the functional categories involved in French nominal structure as such. They relabelled the determiner and the demonstrative terms of their own lexicon with phonetic strings corresponding to major lexical category items in French. The plural marker has come into the language through the relabelling of the third person plural pronoun. Case markers were assigned a phonologically null form. The history of the so-called indefinite marker *yon* does not follow this general pattern, however, as it appears to have developed though reanalysis from within the creole.

3.3.5. Functional category lexical entries involved in clause structure

This section considers the functional categories involved in the structure of the clause. The tense, mood and aspect markers, the

complementisers, the relative operator, the clausal conjunction, the focus marker, the marker of negation, the markers expressing the speakers point of view and the determiner in the clause will be discussed in turn.

3.3.5.1. The tense, mood and aspect markers

In Haitian Creole, the verb of a finite clause is invariant. In French, however, the verb of a finite clause obligatorily bears inflectional morphology encoding tense, mood, aspect, and person and number. None of the verbal morphology found in French has made its way into Haitian. Haitian follows the pattern of its West African (non-Bantu) substratum languages in having invariant bare verbs.

In both Haitian and Fongbe, temporal relationships, mood and aspect are encoded by means of markers occurring between the subject and the verb. The inventory of the TMA markers[9] of Haitian and Fongbe is provided in Table 3.4 (Bentolila 1971; Lefebvre 1996b, 1998a: 11–140).

Table 3.4. *The inventory of TMA markers in Haitian and in Fongbe*

ANTERIOR		IRREALIS		NON-COMPLETE			
Past/Past perfect		Definite future		Habitual		Imperfective	
H	F	H	F	H	F	H	F
te	*kò*	*ap*	*ná*	—	*nɔ̀*	*ap*	*ɖò…wὲ*
		Indefinite future					
		H	F				
		a-va	*ná-wá*				
		Subjunctive					
		H	F				
		pou	*ní*				

(=(115) in Lefebvre 1996b:!281)

As can be seen from this table, the two inventories are remarkably similar. Both languages have a marker which encodes anteriority. Both lexically distinguish between definite and indefinite future. The definite future markers are used to convey the speaker's attitude that the event referred to

by the clause will definitely take place in the near future. By contrast, the indefinite future markers are used to convey the speaker's opinion that the event referred to by the clause might eventually or potentially take place at an undetermined point in the future. The fact that speakers of Haitian distinguish between definite and indefinite future has been widely documented in the literature (see Spears 1990, and the references therein; Valdman 1970, 1978). For Fongbe, this distinction is pointed out in Anonymous (1983:!V,!3). Both languages have a marker glossed as "subjunctive" for convenience. This term subsumes the three meanings of *pou* and *ní* respectively: both may be interpreted as 'must', 'should' or 'may'. Both languages have a form which encodes imperfective aspect. As can be seen in Table 3.4, there is a one-to-one correspondence between the preverbal markers in the two languages, except that Fongbe has one encoding the habitual aspect, and Haitian does not.

As is shown in Lefebvre (1998a: 111–140) the phonological representations of the tense, mood and aspect markers of Haitian are derived from French periphrastic froms. For example, the anterior marker *te* is phonologically derived from the French auxiliary *été*, the imperfective marker *ap* is phonologically derived from the French periphrastic form *après*, the subjunctive marker *pou* from the French periphrastic form *pour*, and so on and so forth. In Lefebvre (1998a: 111–140), it is extensively argued, however, that the syntactic and semantic properties of the Haitian forms follow the details of the corresponding substratum lexical entries rather than those of the French forms from which they are phonologically derived. For example, the form of the Haitian indefinite future *va* is phonologically derived from the form of the French periphrastic future *va*.

In French, however, the periphrastic future is used to encode definite future rather than indefinite future (Grevisse 1975: 731). The Haitian definite future marker is argued to have been created by the reanalysis of the clause initial adverb *apre* 'after' in much the same way as the Tok Pisin adverb *baimbai* 'after' (Sankoff and Laberge 1980). Three cases of relexification followed by levelling involving the anterior, the imperfective and the habitual markers are also discussed (Lefebvre 1998a: 127–129, 137–139).

In both languages, complex tenses are formed by a combination of the preverbal markers rather than with auxiliary verbs as in French. For example, the combination of the markers of anteriority and of definite future yields a conditional interpretation of the clause as is shown in (83). Whether the conditional is assigned a present or a past interpretation is determined by the context.

(83)   *Mari te   ap   prepare pat.*   HAITIAN
      Mari kò   ná   ɖà   wɔ́.   FONGBE
      Mary ANT DEF.FUT   prepare dough
      'Mary would prepare dough.'
      'Mary would have prepared dough.'   (=(123) in Lefebvre 1996a)

Lefebvre (1996a) provides an exhaustive list of the complex tenses of Haitian and Fongbe showing that the range of complex tenses is the same for both languages.

Both Haitian and Fongbe allow for bare sentences (that is, sentences in which there is no preverbal marker), in contrast to French which does not.

(84)   *Mari prepare pat   la.*   HAITIAN
      Mari ɖà   wɔ́   ɔ́.   FONGBE
      Mary prepare dough DEF
      'Mary has prepared the dough.' (=(56) and (110) in Lefebvre 1996a)

In both Haitian and Fongbe, the temporal interpretation of such sentences is computed from the various components that participate in establishing the

aspectual properties of a clause (see Déchaine 1991 for Haitian). These components are the aspectual class of the verb (Lumsden 1995a), the definiteness of the direct object of the verb (Damoiseau 1988), and the definiteness of the subject (see Bentolila 1987). For example, while a clause containing a dynamic verb and a definite object is assigned a present perfect interpretation as in (84) above, a clause containing a dynamic verb and a non-definite object is interpreted as past, as is illustrated in (85).

(85) *Mari prepare pat.*   HAITIAN
       Mari ɖà   wɔ.   FONGBE
       Mary prepare   dough
       'Mary prepared dough.'   (=(48) and (111) in Lefebvre 1996a)

It thus appears that the expression and interpretation of tense, mood and aspect in Haitian Creole follows the semantic and syntactic pattern of its substratum language rather than that of French, even though French has contributed the labels of the Haitian tense, mood and aspect markers.

3.3.5.2. *Complementisers and complementiser-like forms*

This section examines the forms introducing the tensed complements of verbs of the SAY- and WANT-classes.

In Haitian, the complementiser introducing sentential complements of verbs of the SAY-class is phonologically null, as can be seen in (86).

(86) *Li$_i$ kwè   / panse li$_{i/j}$ refè.*   HAITIAN
       he   believe / think he   cure
       'He believes/thinks that he is cured.'   (=(25) in Sterlin 1988)

On the basis of binding and extraction facts, Sterlin (1988, 1989) argues that there must be a null complementiser introducing the embedded clause in (86).

In French, the tensed complement of verbs such as *croire* 'to believe', *dire* 'to say', *penser* 'to think', etc., is introduced by the [+ tense]

complementiser *que* 'that' (e.g. Kayne 1976; Milner 1978), requiring that the verb in the embedded clause be marked for indicative mood.

(87)   *Jean croit   / dit / pense* [CP *que Marie est partie*]   FRENCH
       John believe / say / think   COMP Mary left
       'John believes/says/thinks that Mary left.'
                                         (=(55) in Lefebvre 1993a)

Haitian has no overt form corresponding to French *que*. This tells us that the creators of Haitian did not identify *que* as a [+ tense] complementiser.

In Fongbe, the tensed complement of verbs of the SAY-class is introduced either by a null complementiser, as per the analysis in Kinyalolo (1993b), or by *ɖɔ* (lit.: 'to say'), as per an analysis along the lines of Lord's (1976). These two analyses may be represented as (88a) and (88b), respectively.

(88) a.   *Kɔ̀kú   ɖì*   [*ɖɔ̀* [ø   [*Bàyí wá*]]]   FONGBE
           Koku   believe   say   COMP   Bayi   come
      b.   *Kɔ̀kú   ɖì*   [*ɖɔ̀* [*Bàyí   wá*]]   FONGBE
           Koku   believe   COMP   Bayi   come
                                         (=(6) in Lefebvre 1998a:186)

As is pointed out in Lefebvre (1998a: 186), these two analyses are not necessarily incompatible as they could be viewed as reflecting two competing dialects in the synchronic lexicon of Fongbe. From this perspective, the representation in (88a) would correspond to a conservative dialect, and that in (88b) to a more innovative dialect, where the serial verb *ɖɔ̀* 'to say' has been reanalysed as the phonological form of the previously null complementiser.

The Haitian data compare with the Fongbe data as follows. First, unlike the innovative dialect of Fongbe and like the conservative one, Haitian has a phonologically null complementiser. However, unlike the conservative dialect, it does not have a serial verb meaning 'to say' in the construction

under discussion. It thus appears that the difference between Haitian and the most conservative dialect of Fongbe resides not in the properties of the complementiser itself but rather in the availability of such a serial verb in the complement of SAY-class verbs. Possibly, the phonologically null complementiser of the conservative substratum lexicon was simply carried over into the Haitian Creole lexicon. (For a discussion of Saramaccan, which appears to reflect the more innovative Fongbe lexicon, see Lefebvre 1998a: 186–187.)

Complements of verbs of the WANT-class and of a small class of adjectives such as 'good' in Haitian are introduced by *pou*, as is illustrated below (see Koopman and Lefebvre 1981, 1982; Lefebvre 1993a; Sterlin 1988, 1989).

(89) *Yo te vle* [*pou m te antre nan troup Jakmèl*]   HAITIAN
      they ANT want COMP me ANT join in troops Jacmel
      'They wanted me to join Jacmel's troops.'
      [Lit.: 'They wanted that I joined Jacmel's troops.']
      (=(10) in Koopman and Lefebvre 1982)

(90) *Li bòn* [*pou m t a pati*]   HAITIAN
      it good COMP I ANT IND.FUT leave
      'It is good for me to leave.'
      [Lit.: 'It is good that I leave.']   (=(65) in Lefebvre 1993a)

Koopman and Lefebvre (1981, 1982) show that the complementiser *pou* is homophonous with the preposition *pou* which selects NP complements, as in (91), or purposive clauses as in (92).

(91) *Pòte sa pou mwen.*   HAITIAN
      bring this for me
      'Bring this for me.'   (=(4) in Koopman and Lefebvre 1982)

(92) *M te bezwen èskont sa a pou m te repati.*   HAITIAN
      I ANT need money this DEF for I ANT start.again
      'I needed this money for a new start.'
      [Lit.: 'I needed this money so that I could start again.']
      (=(6) in Koopman and Lefebvre 1982)

The complementiser *pou* is also homophonous with the mood marker of obligation *pou* discussed in section 3.3.5.1.

(93) *Mari pou   prepare pat.*   HAITIAN
      Mary SUB   prepare   dough
      'Mary should prepare dough.'

While the preposition *pou* derives its phonological form from the French preposition *pour* 'for' which selects NP complements, as well as purposive clausal complements, the Haitian mood marker *pou* derives its phonological form from the French form *pour* occurring in the periphrastic expression *être pour* 'to be about to'. However, and as is pointed out in Lefebvre (1993a: 118–119), in contrast to Haitian *pou*, French *pour* does not introduce complements of verbs of the WANT-class nor adjectives of the GOOD-class. In French, the tensed complements of verbs and adjectives of the WANT-class are introduced by the complementiser *que* bearing a special feature that Kayne (1976) represents as [+ F], standing for subjunctive mood. While the *que* selected by verbs of the SAY-class requires that the verb of the complement clause to be marked for indicative mood, the *que* selected by predicates of the WANT- and GOOD-classes requires the verb of the complement clause to be marked for subjunctive mood.[10] But the Haitian complementiser *pou* does not derive its properties from the corresponding French complementiser *que* [+ F]. This raises the question of the source of the properties of Haitian complementiser *pou*.

In Fongbe, verbs of the WANT-class and a small class of adjectives such as 'good' are introduced either by *nú* or by *ní*. The sentences in (94) and (95) show instantiations of the complementiser *nú*.

(94) *Ùn jló nú à ní wá.*   FONGBE
       I   want COMP 2nd SUB come
       'I want you to come.'
       [Lit.: 'I want that you come.']   (Anonymous 1983: X, 2)

(95) *É nyɔ́   nú ùn ní yì.*   FONGBE
       it be.good COMP 1st SUB leave
       'It is good for me to leave.'
       [Lit.: 'It is good that I leave.']   (Anonymous 1983: X, 2)

The complementiser *nú* in (94) and (95) is homophonous with the preposition *nú* 'for' which selects either NP complements, or purposive clausal complements. The complement of the same predicates may also be introduced by *ní*. This is shown in (96) and (97).

(96) *Ùn jló ní à ní wá.*   FONGBE
       I   want COMP 2nd SUB come
       'I want you to come.'
       [Lit.: 'I want that you come.']

(97) *É nyɔ́   ní ùn ní yì.*   FONGBE
       it be.good COMP 1st SUB leave
       'It is good for me to leave.'
       [Lit.: 'It is good that I leave.']   (Anonymous 1983: X, 2)

The complementiser *ní* is homophonous with the mood marker *ní* discussed in section 3.3.5.1. According to the Fongbe speakers with whom I did fieldwork, the complementisers *nú* and *ní* are mutually interchangeable, that is, the selection of one or the other of these forms does not entail a semantic difference.

     Once again, the relexification hypothesis of creole genesis accounts in a straightforward way for the Haitian Creole data. In this view, the lexical entry copied from Fongbe *nú*, preposition and complementiser was relabelled as *pou* on the basis of the French preposition *pour* 'for' introducing nominal or clausal complements, yielding Haitian *pou*, preposition and complementiser. The lexical entry copied from Fongbe *ní*, mood marker and complementiser, was relabelled as *pou* on the basis of

French *pour* occurring in the French periphrastic expression *être pour* 'to be about to', yielding Haitian *pou* preposition and complementiser. This is schematised in (98).

(98) Lexical entry   HAITIAN   FONGBE

Lexical entry	HAITIAN	FONGBE
preposition and complementiser	*pou*	*nú*
mood marker and complementiser	*pou*	*ní*

The two Haitian lexical entries signalled by *pou* are accidentally homophonous due to the superstratum forms that they were relabelled from: *pour* in both cases. The relexification hypothesis accounts in a straightforward way for the striking similarity between the properties of the substratum lexical entries and those of the corresponding ones in the creole. In this view, there is no need for recourse to reanalysis (of the preposition as complementiser or of the mood marker as complementiser) as was previously proposed in Koopman and Lefebvre (1981). (For much further discussion see Lefebvre 1998a: 186–193.)

3.3.5.3. Complementisers or resumptives in the context of extracted subjects?

Languages present subject/object asymmetries. They offer different strategies to rescue a sentence whose subject has been extracted. French has *qui*, a special form of the complementiser *que* (e.g. Moreau 1971; Kayne 1976; etc.). Fongbe has a resumptive pronoun in the extraction site: *é* in the singular and *yé* in the plural, as per the analysis in Law (1994a, 1994b). Haitian has the form *ki* phonologically derived from the French special form of the complementiser *qui* [ki]. (For numerous examples, see Lefebvre 1998a: 193–203.) The question is whether Haitian *ki* has the function of a complementiser (Koopman 1982a, 1982b) or that of a resumptive pronoun occurring in subject position (Law 1992, 1994b; Lumsden 1990; Manfredi

1993). In Lefebvre (1998a: 193–203), all the arguments supporting the above mentioned analyses are extensively layed out and evaluated. The conclusion of this study is that Haitian *ki* has the properties of a resumptive pronoun occurring in the position of extracted subjects thus following the syntactic pattern of the substratum languages. The fact that *ki* does not have the properties of French *qui* provides another piece of evidence showing that the creators of Haitian did not acquire these properties because they did not have enough exposure to French.

3.3.5.4. *The nominal operator in relative and factive clauses*

Like other Gbe languages, Fongbe has a lexical operator *ɖĕè* which shows up in relative and factive clauses, as shown in (99) and (100), respectively.

(99) *Xɔ̀ ɖé-é   mὲ ùn dɔ́ àmlɔ̀n ɖὲ ɔ́.*   FONGBE
house OP-RES in I   sleep sleep LOC DEF
'The house in which I slept.'   (=(14d) in Kinyalolo 1993a)

(100) *Wá ɖé-é   Jan wá ɔ́ víví   nú nɔ̀   tɔ̀n.* FONGBE
arrive OP-RES John arrive DEF make.happy for mother GEN
'The fact that John arrived made his mother happy.'
(=(3) in Lefebvre 1994b)

Kinyalolo (1993a) and Collins (1994) argue that this morpheme is an operator rather than a complementiser. The basis for their claim is that *ɖĕè* can pied-pipe postpositions. Since complementisers cannot pied-pipe material and *ɖĕè* does, *ɖĕè* cannot be a complementiser. The alternative is that it is an operator occurring in specifier of CP. Collins further argues that it is a nominal operator, since it can only be coindexed with nominal phrases (thus excluding postpositional phrases).

Operators have no semantic content. Since relabelling is semantically driven, we would expect operators to be assigned a null form at relabelling.

This prediction is borne out as Haitian has no overt operator, as shown in (101) and (102).

(101) *Fiy*ᵢ *ø*ᵢ *m sòti ak li*ᵢ *a.*   HAITIAN
     girl OP I go.out with her DEF
     'The girl I went out with.'   (=(44) in Koopman 1982a)

(102) *Wá ɖé-é Jan wá ɔ́ …*   FONGBE
     Rive ø Jan rive a …   HAITIAN
     arrive OP-RES John arrive DEF
     'The fact that John arrived …'   (=(3) in Lefebvre 1994b)

Since the operator is null in this language, pied-piping phenomena of the type observed in Fongbe are not attested in Haitian. The crucial question, however, is whether this null operator is nominal. Koopman (1982a) provides extensive evidence that the Haitian operator can only be coindexed with noun phrases and not with prepositional phrases. In relative clauses involving a PP, the operator in the specifier of CP is coindexed with a resumptive pronoun in the complement position of a preposition within the relative clause, as shown in (101). These facts make sense only if the null operator is nominal.

How does Haitian compare with French? In French, there is no overt operator. However, there appears to be a distinction between the properties of the operator in standard and popular French. Whereas in standard French the relative operator can be coindexed with a PP, in popular French, it cannot. This suggests that, whereas the relative operator in standard French is not nominal, it is nominal in popular French. As is extensively discussed in Bouchard (1982), popular French relative clauses were common in the variety of French spoken in the 17th century. Assuming an analysis where relative clauses and factive clauses require a phonologically null nominal operator in order to be interpreted, all three language varieties would be

similar in having a nominal operator. While this operator is overt in Fongbe, it is covert in both popular French and Haitian.

The following historical scenario is proposed in Lefebvre (1998a: 203–205). It is unlikely that the creators of Haitian acquired the properties of the French operator. It is assumed that they used the properties of their native lexical entry in creating the Haitian lexicon. Since operators have no semantic content, the original lexical entry could not be relabelled. By hypothesis, it was assigned a null form at relabelling. In this view, the Haitian lexical entry inherited the nominal property of the substratum lexical entry. Since the new nominal operator is phonologically null, it cannot pied-pipe lexical material, hence the discrepancy between Fongbe (99) and Haitian (101). By hypothesis, the first generation of Haitian native speakers have deduced the nominal character of the null operator on the basis of the fact that they were not exposed to an operator relating a PP to an empty position in the relative clause.

3.3.5.5. *Clausal conjunction*

Haitian has a conjunction (*e*)*pi* 'and then' used to conjoin clauses, as shown in (103).

(103) *Jan pati (e)pi Mari rive*. HAITIAN
John leave and.then Mary arrive
'John left and then Mary arrived.' (=(70) in Lefebvre 1993a)

This conjunction derives its phonological representation from the French sequence of words *et puis* (lit.: 'and then'), pronounced [(e)pi], which is used in complementary distribution with *et* 'and' to conjoin clauses and noun phrases, as shown in (104).

(104) a. *Jean est parti et/(e)pi Marie est arrivée*. FRENCH
John AUX leave and Mary AUX arrive

'John left and Mary arrived.'   (=(73) in Lefebvre 1993a)
    b.   *Jean et/(e)pi Marie*   FRENCH
        'John and Mary'
        (=(74) in Lefebvre 1993a)

In contrast to French, the Haitian conjunction (*e*)*pi* cannot be used to conjoin noun phrases (see (105a)). Conjunction of noun phrases is achieved by adjoining a prepositional phrase to the first noun. This phrase is headed by the preposition *ak* or (*kòl*)*ak* (<*kòle-ak* 'close with') as is shown in (105b) (see Gilles 1988).

(105) a.   **Jan (e)pi Mari*   HAITIAN
           [Lit.: 'John and.then Mary']
      b.   *Jan (kòl-)ak Mari*   HAITIAN
           'John and Mary'

Once again, the above distribution finds a straightforward explanation when we examine comparable data from the substratum languages. Koopman (1986) notes that in West African languages different lexical items are used to coordinate clauses and NPs. In Fongbe, for example, the conjunction *bɔ* is used to coordinate clauses but not NPs, as shown in (106).

(106) a.   *Jan yì bɔ Mari wá.*   FONGBE
           John leave and.then Mary arrive
           'John left and then Mary arrived.'   (=(70) in Lefebvre 1993a)
      b.   **Jan bɔ Mari*   FONGBE
           [Lit.: 'John and then Mary']   (=(71) in Lefebvre 1993a)

As is the case in Haitian, NPs are coordinated by adjoining a prepositional phrase headed by *kpódó* (lit.: 'with.at') to the first noun.

(107) *Jan kpódó Mari (kpó)*   FONGBE
      John with Mary with
      'John and Mary'   (=(72) in Lefebvre 1993a)

The properties of Haitian (*e*)*pi* 'and.then' and (*kòl-*)*ak* 'close.with' are derivable straightforwardly according to the relexification hypothesis. *Bɔ* 'and.then' was relexified as (*e*)*pi* 'and.then' on the basis of French *et puis* 'and then' and *kpódó* was relexified as (*kòl-*)*ak* on the basis of French

coller 'to be close to' and *avec* 'with'. (For an extensive discussion of conjunction in Fongbe with comparative data from Haitian, see Lefebvre in press).

3.3.5.6. *The cleft marker*

In Haitian clefts are introduced by *se*, phonologically derived from French *c'est* [se/sɛ] 'it is'. Both forms are illustrated in (108).

(108) a.   *Se   Jan   Mari   wè.*   HAITIAN
       b.   *C'est Jean que   Marie   a aperçu.*   FRENCH
             'It is John that Mary caught sight of.'
                                    (=(72) in Lefebvre 1998a: 206)

In spite of their apparent similarity, *se* and *c'est* have quite different properties (e.g. Lumsden 1990; Déprez and Vinet 1991; DeGraff 1992b, 1992c), and they are assigned different analyses. It thus appears that, although French *c'est* is the source of the phonological representation of Haitian *se*, it did not provide its other properties.

The closest Fongbe form to Haitian *se* is *wè*, which also occurs in clefts, as in (109).

(109) *Mari wè   Jan   mɔ̀.*   FONGBE
       Mary it.is   John catch sight of
       'It is Mary that John caught sight of.' (=(74) in Lefebvre 1998a: 207)

Se and *wè* differ in their distributional properties: *se* occurs at the beginning of the clefted constituent, whereas *wè* occurs at the end of it. They also differ in their other properties (see Lefebvre 1998a: 206–208). It thus appears that, in this case, the properties of *se* were not provided by the substratum language. Presumably, the creators of Haitian who had a lexical entry like Fongbe *wè* did not find an appropriate form with a suitable distribution in the superstratum language to relabel it. Given the methodology adopted for the comparative study, Lefebvre (1998a: 208)

concludes that the properties of *se* constitute an independent development
(see also DeGraff 1992b, for a similar claim).

3.3.5.7. *Negation markers*

The Haitian negation marker *pa* is homophonous with French *pas*
'not'. However, although French *pas* obviously supplied the form of the
Haitian negation marker, it did not contribute its other properties. One
contrast noted by DeGraff (1993a) is that, while Haitian *pa* generally
precedes the tense, mood and aspect markers, in French *pas* always occurs
after the finite verb. This contrast is illustrated in (110) and (111).

(110) a.   *Jan pa t' av-   ale nan mache.*   HAITIAN
           John NEG ANT IND.FUT go in   market
           'John would not have gone to the market.'
                                            (=(1a) in DeGraff 1993a)
    b.   **Jan t' av ale pa nan mache*   (=(1d) in DeGraff 1993a)

(111) a.   *Jean* (*ne*) *serait pas allé au   marché.*   FRENCH
           John (*ne*) would.be *pas* gone to.the market
           'John would not have gone to the market.'
                                            (=(2a) in DeGraff 1993a)
    b.   *Jean n' ira   pas au   cinéma.*   FRENCH
           John (*n'*) go.FUT *pas* to.the   movies
           'John will not go to the movies.'   (=(2c) in DeGraff 1993a)

Another contrast noted by DeGraff (1993a) is that, whereas Haitian *pa* must
occur between the subject and the verb, French *pas* may, in some contexts,
occur at the periphery of the clause that it modifies. Compare (112) and
(113).

(112) *Bouki fait   le   clown pour pas qu' ils s'ennuient.* FRENCH
      Bouki makes the clown for *pas* that 3pl bore + REF
      'Bouki is clowning around so that they don't get bored.'
                                            (=(11a) in DeGraff 1993a)

(113) **Bouki ap fè   komik pou pa yo   anniye*   HAITIAN
      Bouki IMP make clown for *pa* they bore
                                            (=(11b) in DeGraff 1993a)

A third difference is that French *pas*, but not Haitian *pa*, may occur in nominal structures, as shown in (114) and (115).

(114) *Voilà un type   pas bête.*   FRENCH
      there a   fellow *pas* stupid
      'There goes a man who is not stupid.'   (=(12a) in DeGraff 1993a)

(115) **Men   yon mounn pa   sòt*   HAITIAN
      here/there.is   a   fellow *pa* stupid
      'There goes a man who is not stupid.'   (=(12b) in DeGraff 1993a)

A fourth difference, discussed at length by both DeGraff (1993a) and Déprez (1999), has to do with the way Haitian *pa* and French *pas* interact with negative quantifiers. These data argue that, although French *pas* contributed the form of Haitian *pa*, it did not contribute its other properties. DeGraff (1993a) further claims that Haitian *pa* actually shares properties with French *ne* (see (111)).

    A comparison of Haitian *pa* with corresponding morphemes in the substratum languages reveals the source of the properties of *pa*. All Gbe languages have a negation marker that occurs between the subject and the verb (Hazoumê 1990). In Fongbe, this marker is *mà*. As is the case with Haitian *pa*, this marker generally precedes the tense, mood and aspect markers. Compare (116) with (110a).

(116) *Kɔ̀kú mà   ní   wá àxì   mὲ.*   FONGBE
      Koku NEG SUB go   market in
      'Koku does not have to go to the market.'
                              (=(85) in Lefebvre 1998a: 210)

In Haitian (for a subset of speakers) and in Fongbe, the mood markers can also precede *pa*/*mà*, as shown in (117). Note the effect of word order on the interpretation of the sentence.

(117) a.   *Mari pa pou   prepare pat.*   HAITIAN
            Mari mà ní   ɖà   wɔ̌.   FONGBE
            Mary NEG SUB   prepare dough
            'Mary does not have to prepare dough.'
                                            (=(86a) in Lefebvre 1998a: 210)

     b.   *Mari pou pa   prepare pat.*   HAITIAN
            Mari ní   mà   ɖà   wɔ̌.   FONGBE
            Mary SUB   NEG prepare dough
            'Mary should not prepare dough.' (=(132) in Lefebvre 1996a)

In Lefebvre (1998a: 210–211), it is further shown that like Haitian *pa*, Fongbe *mà* cannot occur at the periphery of the clause that it modifies, it is not allowed in nominal structures, and it interacts with negative quantifiers in a way similar to Haitian *pa*. On the basis of these facts, Lefebvre draws a twofold conclusion: Fongbe *mà* was relexified as *pa* on the basis of the French negation adverb *pas*; French *ne* was not identified as such by the creators of the creole and therefore, it did not enter Haitian Creole.

3.3.5.8. *Markers expressing the speaker's point of view*

Fongbe has a paradigm of functional items whose function is to express the speaker's point of view on the proposition. In the literature, lexical items of this type are referred to as evidentials or validators. Fongbe has three of these markers: the yes-no question marker *à*, the negative marker *ă* and the marker of insistence *ó* (see da Cruz 1994). All three occur only at the end of clauses. Evidentials are not part of the French lexicon. Joseph (1995) argues that Haitian Creole has a marker of insistence that has the properties of Fongbe *ó*. He proposes that *ó* has been relexified on the basis of French *non*. The bulk of the properties of French *non*, however, are not associated with Haitian *non*. This paradigm of lexical items is extensively discussed in Lefebvre (1998a: 213–217), where it is also shown

that the substratum question and negative markers have not been relexified due to lack of available appropriate material in the superstratum language.

3.3.5.9. *The determiner in the clause*

The definite determiner found in the nominal structure of Haitian and Fongbe also plays a central role in the structure of the Haitian and Fongbe clause (see Lefebvre 1982, 1991b, 1992, 1996b, 1998b; Lefebvre and Massam 1988; Law and Lefebvre 1995). As shown in (118), when the determiner occurs in the context of a clause, it may be assigned three slightly different interpretations.

(118) *Moun   nan kraze   manchinn nan   an.*   HAITIAN$_1$
 Súnù   ɔ́ gbà   mɔ́tò   ɔ́   ɔ́.   FONGBE$_1$
 man   DEF destroy car   DEF   DEF
 a. 'The man destroyed the car (as was said earlier).'
 b. 'The man has destroyed the car, as we knew he would.'
 c. 'The man has destroyed the car, as we knew it would be
      destroyed.'   (=(2) in Lefebvre 1998b)

In (118a), the determiner asserts the content of the proposition, relating it to something that has been said earlier in the conversation. In (118b) and (118c), the determiner identifies an event that is already part of the shared knowledge of the participants. It literally means 'this event in question/this event that we know of'. The determiner with this meaning has been referred to in earlier work as the event determiner (e.g. Lefebvre 1992). As such, it may trigger an interpretation which is subject-oriented, as in (118b), or object-oriented, as in (118c). Lefebvre (1998b) proposes that the clausal determiner may head one of four functional category projections in the clause. The position of the determiner in the syntactic tree determines its scope and therefore its specific interpretations.

In Lefebvre (1998a: 219–248) it is shown that the properties of the determiner in the clause are the same in both languages. As an assertive marker, the determiner in the clause interacts with the evidential markers discussed in 3.3.5.9. As an event determiner, the determiner in the clause interacts with the aspectual properties of the clause determined by the aspectual class of the verb, the overt manifestation of aspect, etc. In this case, it is licensed by the definiteness of the two arguments that delimit the event denoted by the clause: the subject and the affected object. Furthermore, in both languages, the surface distribution of the determiner in the clause is constrained by the same factors. Finally, and as is documented in detail in Lefebvre (1998a:119–148), there is variation among speakers in each language. In both languages three patterns of variation have been identifed and they appear to be the same for both languages. The examples in (118) illustrate one of the three patterns. This finds no parallel in French, for, in this language, the determiner plays no role at all in clause structure.

3.3.5.10. Summary

The bulk of the properties of the functional lexical items involved in clause structure follows rather straightforwardly from the theory of creole genesis outlined in section 3.1. The inventory and properties of the tense, mood and aspect markers of Haitian, though phonologically derived from French periphrastic expressions, correspond to those of Fongbe (with one case of reanalysis and a few cases of dialect levelling). The null complementiser introducing complements of verbs of the SAY-class in Fongbe has a null counterpart in Haitian. In both Haitian and Fongbe, there are two underspecified lexical entries: one which can be used as mood

marker and complementiser, and another which serves as preposition and complementiser. Haitian and Fongbe are also similar in having a resumptive pronoun in the basic position of extracted subjects, unlike French, which has a special form of the complementiser that licences the empty subject position. In both Haitian and Fongbe, the conjunction used to conjoin clauses cannot be used to conjoin NPs, in contrast to French where the same lexical item can conjoin both clauses and NPs. The negation marker in Haitian was argued to have the same semantic and distributional properties as the negation markers of the substratum languages, but not the French adverbial form from which it was phonologically derived. The lexical operator *ɖĕè* of Fongbe could not be relabelled because it has no semantic content. This lexical entry was assigned a null form in the Haitian lexicon. The interrogative marker *à* and the negative marker *ǎ* were not relexified because there were no available forms in the superstratum language to provide them with a new phonological representation. The Haitian marker of insistence *non* was shown to have the same properties as Fongbe *ó*. These data show that, as in the substratum languages, and in contrast to French, Haitian has grammatical markers which express the speaker's point of view on the proposition. The determiner which plays a role in nominal structure also plays a role in the clause structure. Again, this unites Haitian and Fongbe against French, where the determiner occurring in a nominal strcuture plays no role at all in the structure of the clause. The sole Haitian lexical entry playing a role in the clause structure that appears to have had an independent developement is *se*. Indeed, its properties correspond to those of neither the substratum nor the superstratum language. So, for this area of the lexicon as well, we have to conclude that the relexification account of

creole genesis accounts for the bulk of the lexical items involved. Appendix 2 provides an overview of the types of Haitian Creole lexical entries with respect to origin.

3.4. Parameters

By hypothesis, the creators of the creole use the parametric values of their own grammar in assigning a value to the parameters of the language that they are creating. This hypothesis predicts that, where the parametric values of the substratum and superstratum differ, the creole should have the same value as the substratum languages. In the case of Haitian Creole, with one exception, this prediction is borne out. As will be seen below, this is largely due to the fact that the properties of the functional categories have been reproduced in the creole through relexification. The following parameters will be discussed: availability of null subjects, verb raising, serial verbs and double-objects, negative quantifiers and verb-doubling phenomena.[11] The content of this section summarises chapter 12 of Lefebvre (1998a: 349–375).

3.4.1. The null subject parameter

One of the parametric options of UG relates to whether null subjects are available in particular languages. In point of fact, this parameter represents the remains of the former PRO-DROP parameter expressed in Chomsky (1981) (e.g. Bennis 1982; Safir 1982; Hulk 1986; Law 1992). In recent literature, it has been proposed that languages with syntactic clitics should be considered null subject languages (e.g. Jaeggli 1984; Hulk 1986;

Roberge 1990). The theory goes as follows: subject clitics are not generated in NP positions but in a functional category projection (INFL(ection) or AGR(eement)) as the spelling-out of person, number, gender and case features. In languages which have syntactic clitics, the subject position is thus phonologically null, but it is bound by the clitic. In this view, both French and Fongbe would be null subject languages, since both languages have syntactic clitics, as is extensively argued for in Lefebvre (1998a: 148–157).

In the recent literature on Haitian Creole, there has been some debate as to whether Haitian is a null subject language (see Cadely 1994; DeGraff 1992a, 1992b, 1992d, 1993b, 1996; Déprez 1992a; Law 1992). This debate depends on whether Haitian has null subjects of the type we find, for example, in Italian. DeGraff (1992a) claims that there are empty subjects in Haitian. Déprez (1992a) and Cadely (1994) argue against this position. They both argue that Haitian clitics are not syntactic but phonological. Having evaluated the arguments presented to support each of these analyses, I also conclude that Haitian is not a null subject language. Both sets of arguments are fully presented and extensively discussed in Lefebvre (1998a: 148–157).

Assuming the analysis whereby the availability of syntactic clitics defines a language as a null subject language, we have to conclude that Haitian differs from both of its source languages on this parameter. While both French and Fongbe have a positive value for the null subject parameter, Haitian has a negative one. Thus, in this case, it appears that the creators of Haitian had to reset the value of the original parameter. This situation is a consequence of the fact that they have abandoned the syntactic clitics of their

original lexicon. As is extensively discussed in Lefebvre (1998a: 148–157), based on Brousseau (1995a), it is shown that syntactic clitics were not reproduced in the early creole due to the way relexification proceeds in creole genesis. As a consequence of this situation, it is likely that the first generation of Haitian native speakers assigned the null subject parameter a negative value since they were exposed only to strong subject pronouns. In terms of the markedness issue, this is extremely interesting. On the basis of work by Hyams (1986, 1987), DeGraff (1992a) points out that availability of null subjects is the unmarked option of UG. If this is correct, while both the substratum and the superstratum languages of Haitian present the unmarked option of this parameter, Haitian exemplifies the marked one. This is a major drawback for theories advocating that creole languages systematically present the unmarked parametric options of Universal Grammar (e.g. Bickerton 1984).

3.4.2. *Verb raising*

In recent literature, it has been proposed that languages vary based on whether they allow verb raising (Chomsky 1981; Pollock 1989, and related literature). On the basis of facts involving, among other phenomena, negative placement, question formation and adverb placement, Pollock (1989) argues that while French has verb raising, English does not. In Pollock's (1989) analysis, this cluster of differential properties between English and French can be accounted for by a parametric difference between the two languages, depending on whether or not the language allows verb raising. In French, the verb must raise to a higher position in the syntactic tree (from V through AGR to tense, or even to CP). By contrast, verb raising

is not available in English, and hence, the verb stays in its basic position within the VP. Pollock's analysis also captures the relationship between the availability of verb raising and rich verbal morphology in a given language: only languages with rich verbal morphology, such as French, have verb raising. It is argued that this inflectional morphology is picked up by the verb as the verb moves through AGR to tense.

Both Haitian and Fongbe contrast with French with respect to this parametric option. Unlike French, neither Haitian nor Fongbe has inflectional morphology (see section 3.3.5.1). Furthermore, neither Haitian nor Fongbe present any of the characteristics of the verb raising languages (see Lefebvre 1998a: 351–355), a conclusion which accords with DeGraff (1992b) and Avolonto (1992), for Haitian and Fongbe, respectively. This contrasts with French, which is a verb raising language *par excellence*. Thus, for this parameter, Haitian has the same value as the Gbe languages, and the Kwa languages more generally (e.g. Givón 1971; Baker 1991).[12]

It thus appears that the value of the verb raising parameter in Haitian pairs with Fongbe and differs from French. As is pointed out in Lefebvre (1998a: 355), it appears that the first generation of Haitian native speakers were able to identify the properties of INFL and AGR in the language they were exposed to on the basis of the primary data that were submitted to them. On the basis of these properties, they deduced that verb raising is not available in that language.

3.4.3. Serial verbs

Like several West African languages, Haitian Creole has serial verbs, as shown in (119).

(119) É sɔ́ àsɔ́n yì àxì mὲ.   FONGBE
      Li pran crab ale nan mache.   HAITIAN
      3rd take crab go in market in
      'He brought the crab to the market.'   (=(8) in Lefebvre 1986)

In contrast to Haitian and Fongbe, French does not have serial verbs.

In recent literature, several parameters/correlations have been proposed to account for the availability of serial verbs in particular languages. Among the proposals that have been made, two are borne out by the data. (For a discussion of the other proposals, see Lefebvre 1998a: 355–357.) A first proposal is that there is a correlation between the availability of verb serialisation in particular grammars and the lack of derivational verbal morphology (e.g. Baker 1991:!79). This correlation holds true for verbs in the Caribbean creoles and in West African languages, which are largely mono-morphemic (see Muysken 1988d). Data from the three languages under comparison here also support this claim. As was shown in section 3.3.3, French has many derivational affixes which modify the meaning of base verbs. For example, the base verb *porter* 'to carry' is part of the derived verb *ap-porter* 'to bring'. The latter concept is expressed by a serial verb construction in both Haitian and Fongbe, as is shown in (119). Both Haitian and Fongbe lack derivational affixes of the type we find in French. Hence, this correlation is supported by data drawn from the three languages being examined here. This correlation would account for the fact that, while French has no serial verbs, Haitian and Fongbe do have this construction. The correlation has further been extended to the lack of inflectional verbal morphology. In this view, the availability of verb serialisation correlates with the lack of inflectional morphology, and hence, with the absence of verb raising to INFL, as discussed in section 3.4.3 (e.g.

Baker and Stewart 1996; Déchaine 1993; Muysken 1988d). This correlation accounts for the differential properties of the three languages under comparison here. French has inflectional morphology (see section 3.3.5.1) that the verb picks up while raising to INFL (see section 3.4.2). By contrast, Haitian and Fongbe do not have inflectional morphology (see section 3.3.5.1) and verb raising is not available in these languages (see section 3.4.2). In French, there are no serial verbs whereas in Haitian and Fongbe this option is available.

According to the correlation presented above, the creators of Haitian, who were native speakers of languages of the Kwa family, kept the parametric value of their original language in creating the creole: they did not have derivational verbal morphology, and they did not have verb raising to INFL due to lack of inflectional morphology, and hence verb serialisation was available to them. The first generation of native speakers of Haitian would have identified the absence of verb raising in the language that they were presented with. Having identified this parametric value, they deduced the availability of verb serialisation in the grammar (see Lefebvre 1998a: 355–357).

3.4.4. *The double-object construction*

As we saw in section 3.3.2.12, in contrast to French, both Haitian and Fongbe have the recipient-theme construction (NP NP). Among the numerous correlations proposed to account for the availability of the double object construction (all discussed in Lefebvre 1998a: 357–360), there is only one that is supported by the three languages under scrutiny here. Johnson (1991) proposes a direct correlation between the availability of the double-

object construction and the availability of structural genitive case (e.g. *'s* in English) in nominal structures. According to this proposal, the double-object construction, as in (120a), is available in a given grammar because structural genitive case, exhibited in (120b), is also available in the nominal structure of that grammar.

(120) a. John gave Mary a book.   ENGLISH
      b. Mary's book

The motivation for Johnson's proposal is the claim that the two NPs involved in the double-object construction are in a possession relationship which parallels the relationship observed in nominal structures between the possessed and the possessor marked for genitive case. This correlation is borne out by data from the three languages under comparison. The double-object construction is not available in French because genitive case is not available in French nominal structures. The double-object construction is available in Haitian and Fongbe because, as we saw in section 3.3.4.5, in both Fongbe and Haitian nominal structures, genitive case is available. The correlation proposed in Johnson (1991) between the availability of the double-object construction and the availability of structural genitive case in nominal structures is thus supported by these data. In Lefebvre (1998a: 359), it is hypothesised that the creators of the creole used their knowledge of their own grammars and lexicons in setting the value of the parametric option which allows for double-object constructions. They had a genitive construction which they reproduced in the creole. This allowed them to have the double-object construction, which they also reproduced in the creole. The first generation of Haitian native speakers identified the genitive case in the nominal structure of the language they were presented with. On the basis of

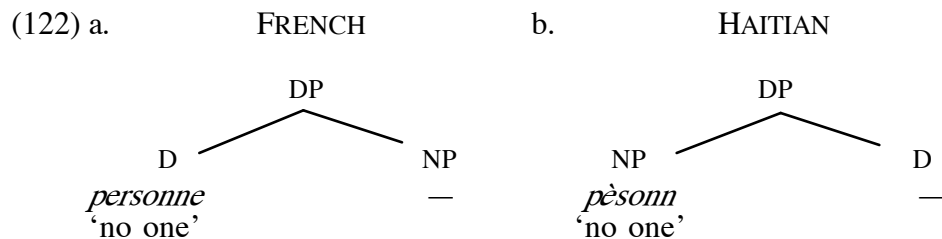this property, they deduced the availability of the double-object construction in that language.

3.4.5. *The interpretation of negative quantifiers*

Haitian negative quantifiers derive their phonological form from French phonetic sequences; for example, *pèsonn* is phonologically derived from French *personne* 'nobody', and *anyen* from French *rien* 'nothing'. However, the properties of these quantifiers are not derived from the corresponding French forms. First, DeGraff (1993a:!67) points out that negative quantifiers interact differently with Haitian *pa* than with French *pas*. Second, he observes that, in French, "co-occurring negative elements cancel each other, giving rise to a net positive statement." This contrasts with Haitian where the two negative elements "are immediately construed as net negative statements." Third, Déprez (1999) points out that, in Haitian, negative quantifiers usually require the presence of a negative marker. This is shown in (121) where *pa* must occur.

(121) a. *M   *(pa) te   wè   pèsonn / anyen.*   HAITIAN
          I   not   ANT   see   no one / nothing
          'I did not see anyone/anything.'   (=(1a) in Déprez 1999)
    b. *Pèsonn *(pa) rive.*   HAITIAN
          'No one arrived.'   (=(2) in Déprez 1999)

As noted by Déprez (1999), this contrasts with standard French, where *pas* cannot occur in this context. The Haitian data also contrast with popular French (Déprez 1999 and Lefebvre 1998a: 79–84). Déprez (1999) discusses several other differences between the two languages. She concludes that the properties of the Haitian negative quantifiers cannot be attributed to French. On the basis of very careful and thorough argumentation, Déprez (1999) proposes accounting for the difference between Haitian and French in terms

of their determiner systems. French does not have bare NPs (see section 3.3.4) but it has a partitive determiner *de*, *du* and *des*. Based upon Déprez's account, French negative quantifiers behave like indefinite determiners (or numerals) with empty nouns. By contrast, Haitian has bare NPs (see section 3.3.4), and negative quantifiers are nouns with empty Ds. These two structures are illustrated in (122) (adapted from (93) in Déprez 1999).

(122) a.   FRENCH   b.   HAITIAN

                     DP   DP

    D   NP   NP   D

 personne   —   *pèsonn*   —

 'no one'   'no one'

In addition, Déprez (1999) presents extensive arguments showing that 17th century French is not the source of bare NPs in Haitian Creole, a conclusion which is in agreement with my own (see Lefebvre 1998a: 79–89).

In Fongbe, the negative quantifiers are *mɛ̀tí* 'nobody' and *nǔtí* 'nothing' corresponding to Haitian *pèsonn* and *anyen*, respectively. In Lefebvre (1998a: 360–363) it is shown that the negative quantifiers co-occur with negative or negation markers in sentences that are interpreted as negative statements. This contrasts with French but parallels the Haitian data. Furthermore, as is the case in Haitian, a clause containing a negative quantifier requires the presence of a negation or negative marker. According to Déprez's general proposal based on Haitian, Fongbe negative quantifiers would thus be like Haitian negative quantifiers, that is, NPs rather than determiners. Interestingly enough, and as we saw in section 3.3.4, Fongbe, like Haitian, allows for bare NPs. The Fongbe data thus appear to provide independent support for the formulation of the parameter proposed in Déprez (1999). On the basis of this comparison, Lefebvre concludes that,

although the phonological representations of the negative quantifiers in Haitian are derived from French, their semantic and syntactic properties are derived from those of the corresponding lexical entries in substratum languages such as Fongbe. Using the parameter defined by Déprez (1999), Lefebvre (1998a: 362) proposes to account for the history of the Haitian facts as follows. The forms *pèsonn* and *anyen* were incorporated into the early Haitian lexicon as nouns rather than as determiners. The first generation of Haitian native speakers encountered bare NPs in the language they were exposed to and deduced that negative quantifiers were NPs, rather than determiners, in this language.

3.4.6. *Verb-doubling phenomena*

Verb-doubling phenomena are involved in four constructions which contain what looks like an exact copy of the predicate (henceforth "the copy"). Koopman (1986) points out that constructions involving a copy of the verb are attested in Haitian and in West African languages but not in French. Clauses containing what looks like a copy of the predicate involve four constructions: temporal adverbial, as in (123), causal adverbial, as in (124), factive clauses, as in (125) and the predicate cleft construction, as in (126). In the examples below, the first occurrence of the verb is an exact replica of the second one.

(123) Temporal adverbial

Wá	*Jan*	*wá*	(*tróló*)		*bɔ̀*	*Mari*	*yì*.	FONGBE
Rive	*Jan*	*rive*		(*epi*)	*Mari*	*pati*.	HAITIAN
arrive	John	arrive	as.soon.as	and	Mary	leave

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

(124) Causal adverbial

Wá	*Jan*	*wá*	*wútú*	*Mari*	*yì.*	FONGBE
Rive	*Jan*	*rive*		*Mari*	*pati.*	HAITIAN
arrive	John	arrive	cause	Mary	leave	

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

(125) Factive

Wá	*ɖé-è*	*Jan*	*wá*	*ɔ́*	*víví*	*nú*	FONGBE
Rive	*ɸ*	*Jan*	*rive*	*a,*	*fè*		HAITIAN
arrive	OP-RES	John	arrive	DEF	make(-happy)	for	

nɔ̀	*tɔ̀n.*
manman	*li*	*kòntan.*
mother	GEN	happy

'The fact that John arrived made his mother happy.'

(=(3) in Lefebvre 1994b)

(126) Predicate cleft

Wá	*wè*	*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)

The informants whose data are reported on in Lefebvre (1990), and Law and Lefebvre (1995) allow various contrastive interpretations of the clefted constituents. In the above examples, the contrastive reading relates to the V alone. In the examples below, even though the clefted constituent consists only of the copy of the verb, the contrastive reading involves the whole VP.

(127) a.

Se	*manje*	*Jan*	*manje*	*pen*	*an.*	HAITIAN
it.is	eat	John	eat	bread	DEF	

'It is eat the bread that John did.' (not e.g. drink the water)

(=(44) in Lefebvre 1990)

b.

Xò	*wè*	*Àsíbá*	*xò*	*Kɔ̀kú.*	FONGBE
hit	it.is	Asiba	hit	Koku	

'It is hit Koku that Asiba did.' (not e.g. kill Sika)

(=(66) in Law and Lefebvre 1995)

Likewise, for these speakers, when the delimiting object is clefted, the contrastive reading may bear on this argument alone or on the whole VP, as shown in (128).

(128) a.   *Se   pen   an   Jan   manje.*   HAITIAN
           it.is   bread   DEF   John   eat
           'It is the bread that John ate.' (not e.g. the meat)
     or 'It is eat the bread that John did.' (not e.g. drink the water)
                                               (=(53) in Lefebvre 1990)

       b.   *Mɔ́tò ɔ́   wὲ   súnù ɖέ gbà.*   FONGBE
           car   DEF   it.is   man   a   destroy
           'It is the car that a man destroyed.' (not e.g. the bicycle)
     or 'It is destroy the car that a man did.' (not e.g. build the house)
                                      (=(72) in Law and Lefebvre 1995)

The semantic interpretation facts in (127) and (128) are remarkable and they show a striking parallel between the grammars of these subsets of Haitian and Fongbe speakers. Various accounts of these facts may be found in Lefebvre (1990), Larson and Lefebvre (1991), Collins (1994) and Law and Lefebvre (1995).

Although these constructions differ in their semantic and syntactic properties (see Lefebvre 1998a:!363–374), they all share the fact that they contain a copy of the verb, and that, unlike deverbal nominals, the copy is deprived of an argument structure. For a subset of both Haitian and Fongbe speakers (identified below as Haitian$_1$ and Fongbe$_1$), the copy can be followed by the determiner which otherwise occurs in nominal structures (see section 3.3.4.1), as is shown in (129)– (132).

(129) Temporal adverbial
       Wá *ɔ́   Jan wá   (trólố)   bɔ̀   Mari yì.*   FONGBE$_1$
       Rive *a   Jan rive   (epi) Mari pati.*   HAITIAN$_1$
       arrive DEF John arrive as.soon.as   and   Mary leave
       'As soon as John arrived (as we knew he would), Mary left.'
                                   (=(19) in Lefebvre 1994b)

(130) Causal adverbial
       Wá *ɔ́   Jan wá   wútú Mari   yì.*   FONGBE$_1$
       Rive *a   Jan rive   Mari   pati.*   HAITIAN$_1$
       arrive DEF John arrive cause Mary   leave
       'Because John arrived (as we knew he would), Mary left.'
                                   (=(20) in Lefebvre 1994b)

(131) Factive

Wá *ɔ́* *ɖé-è* *Jan* *wá* *ɔ́* *víví* *nú* FONGBE₁
Rive *a* *ø* *Jan* *rive* *a,* *fè* HAITIAN₁
arrive DEF OP-RES John arrive DEF make(-happy) for
nɔ̀ tɔ̀n.
manman li kontan.
mother 3rd GEN happy
'The fact that John arrived (as expected) made his mother happy.'
'The (very) fact that John arrived made his mother happy.'
(=(21) in Lefebvre 1994b)

(132) Predicate cleft

Yì *ɔ́* *wὲ* *Jan* *yì.* FONGBE₁
Se *ale* *a* *Jan* *ale.* HAITIAN₁
it.is leave DEF it.is John leave
'It is leave (as expected) that John did.' (not e.g. stay home)
(=(22) in Lefebvre 1994b)

In contrast to speakers of Haitian₁, speakers of what I will call Haitian₂ accept the determiner only at the end of the clause containing the copy. The judgments of these speakers are illustrated in (133)–(136). (Similar judgments are also reported in Lefebvre and Ritter 1993.)

(133) Temporal adverbial
Rive *Jan* *rive* *a* (*epi*) *Mari* *pati.* HAITIAN₂
arrive John arrive DEF and Mary leave
'As soon as John arrived (as we knew he would), Mary left.'

(134) Causal adverbial
Rive *Jan* *rive* *a* *Mari* *pati.* HAITIAN₂
arrive John arrive DEF Mary leave
'Because John arrived (as we knew he would), Mary left.'

(135) Factive
Rive *ø* *Jan* *rive* *a,* *fè* *manman* *li* *kontan.*
HAITIAN₂
arrive OP John arrive DEF make(-happy) mother his happy
'The fact that John arrived (as expected) made his mother happy.'
'The (very) fact that John arrived made his mother happy.'

(136) Predicate cleft
Se *ale* *Jan* *ale* *a.* HAITIAN₂
it.is leave John leave DEF
'It is leave (as expected) that John did.' (not e.g. stay home)

Some speakers of the first group ((129)–(132)) even accept sentences where the event determiner occurs both with the copy (as in (129)–(132)) and at the end of the clause containing the copy (as in (133)–(136)). The variation observed among speakers is akin to the variation observed between West African languages with respect to whether they allow determiners to appear immediately after the head of a relative clause or a factive construction or at the end of the clause (for an extensive discussion of these facts, see Collins 1994). The additional data in (129)–(132) further illustrate the parallelism between the grammars of Haitian and Fongbe.

Availability of verb-doubling phenomena in particular grammars has received some attention (see Lefebvre 1998a: 371–373). For the purpose of the present discussion, I will assume the proposal that availability of verb-doubling phenomena is linked to the properties of the determiner system. In this analysis, the properties that distinguish the Fongbe/Haitian definite determiner from the French determiner may account for the fact that, in the former type of language, the verb copy is available while, in the latter, it is not. There is plenty of evidence showing that the French and Haitian/Fongbe determiners do not have identical properties (see section 3.3.4.1). Whatever the precise characterisation of the parameter accounting for the availability of verb-doubling phenomena in particular grammars, it is clear from the data presented above that Haitian shares with its substratum languages the option that allows for these phenomena, whereas French has the opposite value for this parametric option. (For further discussion, see Lefebvre 1998a: 363–374.)

From this perspective, it is hypothesised that verb-doubling phenomena became part of the Haitian Creole grammar in the following

way: Speakers of the Kwa languages used the parametric value of their own grammar in setting the value for this parameter in the incipient creole. On the basis of the primary data that they were exposed to, the first generation of Haitian native speakers identified the properties of the determiner in the language they were exposed to and deduced the availability of verb-doubling constructions. This is a reasonable hypothesis since, after 200 years of independent evolution, verb-doubling phenomena remain an important feature of the grammar of Haitian. The claim that this parameter setting was carried over into the creole by the substratum speakers is further reinforced by the fact that verb-doubling phenomena of the type described here are found only in those creoles which have substratum languages with this feature. For example, they are not found in the Pacific creoles. Verb-doubling phenomena thus do not constitute a general feature of creole languages; this constitutes a strong argument against the claim that all creole languages are alike (e.g. Bickerton 1984). Furthermore, given the rarity of verb-doubling phenomena among the languages of the world, the availability of such phenomena would be a marked option (e.g. Koopman 1986, for an extensive discussion of this issue). This conclusion runs counter to the claim by Bickerton (1984) and others who state that creole genesis involves setting the parametric options of UG for their unmarked values.

3.4.7. Summary

As a result of the fact that syntactic clitics did not make their way into the creole, the value of the null subject parameter in the substratum grammar had to be reset. In all the other cases, the parametric values of the substratum grammars were transferred into the creole. As was shown

throughout this section, this is largely due to the fact that the properties of the functional categories of the substratum lexicons have been reproduced in the creole through relexification. The absence of verb raising is linked to the absence of inflectional morphology. The availability of serial verbs is linked to the lack of derivational and inflectional morphology. The availability of the double-object construction is linked to the availability of the genitive case. The interpretation of negative quantifiers is linked to the availability of bare NPs. The availability of verb-doubling phenomena is hypothesised to be related to the properties of the determiner system. While the bulk of the parametric options of Haitian correspond to those of the substratum languages, none correspond to French parametric options. This fact strongly supports the view that the creators of a radical creole use the parametric values of their native languages in setting the parametric values of the creole.

3.5. Conclusion and consequences

The data presented in sections 3.3 and 3.4 do support in a significant way the hypothesis of creole genesis outlined in section 3.2. They show that the bulk of the creole's lexicon has been created by relexification; they also illustrate the fact that two other processes, reanalysis and levelling, play a role in the development of the creole. Lefebvre (1998a: 375–395) provides a detailed overall evaluation of the relexification hypothesis of creole genesis with respect to the lexicon, the semantic component and the parametric options. Several further questions for research pertaining to major category lexical entries, e.g. the Bantu component of early Haitian, the issue of the

homogeneity of the substratum languages in creole genesis and the issue of dialect levelling, etc., are being addressed in a preliminary fashion.

The data presented in this chapter call into question a number of assumptions in the field. For example, it has been claimed that a property that is shared by all contributing languages is more likely to enter the creole grammar than when the sources compete (see e.g. Singler 1988: 29). Some data discussed in this chapter constitute clear cases of the sources competing in different ways. For example, in section 3.3.1.3 on reflexivity, it was shown that the superstratum and substratum languages of Haitian do not have much in common in terms of how they encode reflexivity, and that furthermore, the substratum languages manifest variation as to how they encode reflexivity. Nonetheless, the idiosyncratic properties of the substratum languages have made their way into the creole. These data show that a creole's source languages may contribute differential features in a principled way. Another example of data challenging shared assumptions in the field concerns the issue of markedness. Even since Bickerton (1984), it has been widely assumed that creole languages represent the unmarked case. Several subsets of data discussed in this chapter challenge this assumption. The verb-doubling phenomena discussed in section 3.4.6, the raising phenomena discussed in section 3.3.2.6, the availability of verb doubling phenomena discussed in 3.4, etc. constitute examples in point.

The data presented in this chapter strongly support the claim that relexification has played a major role in the formation of Haitian Creole. By hypothesis, this process plays a significant role in the formation of other creole languages as well. The fact that it can be demonstrated that relexification plays a role in the formation of various types of languages

(e.g. mixed languages, pidgins, creoles) supplies evidence that this process is available to human cognition. It is a means of creating new languages (and new language varieties) in a relatively short time. The fact that it exists and the very nature of the process support Sproat's (1985) and Pranka's (1983) proposal that phonological representations are stored independently in the brain.

The nature of relexification, the fact that it is available to human cognition and the fact that it is effectively used in the rapid creation of new languages have consequences for the theory of the transmission and acquisition of lexicons in situations where new languages, like creoles, are formed. Indeed, it is in the nature of this process that lexical entries created in this way have phonological representations derived from phonetic strings in the lexifier language (thus showing discontinuity) but syntactic and semantic properties derived from the substratum language(s) (thus showing continuity). On the surface, then, it looks as if a totally new language has been created. In reality, however, the semantic and syntactic properties of the new lexicon are those of the substratum language lexicon(s). The properties of the original lexicon(s) are transmitted by adults and acquired by children even when the latter are presented with a relexified lexicon. Consequently, although situations where new languages are created by relexification involve a break in the transmission and acquisition of a language, there is no such break in the transmission and acquisition of semantic and grammatical properties (e.g. Lefebvre 1993b, 1996a, and section 3 of this chapter).

As has been pointed out by Hopper and Traugott (1993:!211), the linguistic changes observed in the creation of pidgins and creoles "call into question the hypothesis that change occurs primarily in the transmission

between generations, and is attibutable primarily to children." The very nature of relexification requires that those who apply it be adult native speakers in possession of a mature lexicon. Hence, the type of change resulting from relexification is initiated by adults. This constitutes a major piece of evidence against Bickerton's (1984) Language Bioprogram Hypothesis of creole genesis.

The very fact that relexification exists as a cognitive process used to form new languages poses a problem for the genetic classification of the languages so formed. For example, Hall (1950:!203) classifies Haitian as a French dialect: "Haitian Creole is to be classified among the Romance languages, and especially among the northern group of the Gallo-Romance branch, on the basis of its systematic phonological, morphological, syntactical and lexical correspondences." Goodman (1964:!136) makes the following statement: "I do feel impelled to restate, however, that on the basis of no purely linguistic criteria for genetic relationship which have thus far been advanced, including that of 'parenté syntaxique' advanced by Sylvain (see 121–122), can Creole French be classified with any specific language other than French." The data presented here, however, cast considerable doubt on conclusions of this nature. Even though the phonological representations of Haitian Creole lexical entries can be associated with French phonetic strings, Haitian shares its lexical properties, morpho-syntax, concatenation principles and salient features of its parametric values with its substratum languages. Hence, it would appear that, from a typological point of view, Haitian Creole should be classified with its substratum languages. (For further discussion of the genetic classification of creole languages, see chapter 8). As a consequence of this state of affairs, scholars working on the

reconstruction of language families should be aware that some languages (and not necessarily only those known as creoles) may have been created by relexification, thereby straying from the normal course of gradual linguistic change.

The hypothesis of creole genesis presented here and supported by Haitian data also calls into question the assumption that all creole languages are alike, as is advocated by Bickerton (1981, 1984). To the best of my knowledge, this assumption was first challenged by Muysken (1988b) on the basis of a comparison of subsets of data drawn from various creole languages. In light of the hypothesis presented here, I would like to go one step further and claim that all radical creoles should show the division of properties between their source languages argued to exist in Haitian. Therefore, such creoles should have lexical entries with phonological representations derived from phonetic matrices of their superstratum language; the semantic and syntactic properties of these lexical entries, as well as the principles of concatenation and parametric values, should reproduce those of their substratum languages. While Pacific pidgins and creoles reproduce the specific features of the Austronesian languages (e.g. Keesing 1988), the Atlantic creoles reproduce those of their West African substratum languages. For example, while the pronominal system of Solomons Pidgin reproduces that of its Austronesian substratum languages in distinguishing singular, dual and plural, inclusive and exclusive first-person plural, etc (see Keesing 1988), the pronominal system of Haitian reproduces that of its West African substratum languages by not distinguishing first and second person plural (see section 3.3.1.2.1). Likewise, while the tense, mood and aspect system of Solomons Pidgin

reproduces the details of the substratum languages, including preverbal and postverbal particles as well as a predicate marker (see Keesing 1988: 215; Sankoff 1991), the tense, mood and aspect system of Haitian reproduces the details of its substratum languages (see section 3.3.5.1). In a similar fashion, verb-doubling phenomena are only found in creoles that have a West African substrate. Systematic comparisons of other creole languages with their source languages should yield similar results.

Notes to chapter 3

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1 The history of this research is summarised in the Preface to Lefebvre (1998a).

2 The relationship between transfer, calquing and relexification is discussed in Lefebvre (1998a: 33–35). The literature bearing on the contexts where relexification may apply (e.g. in the formation of mixed languages, of pidgin languages and in second language acquisition) is reviewed in Lefebvre (1998a: 19–41). The differences between mixed and pidgin/creole languages are discussed in Lefebvre (1998a: 29–30).

3 See Lefebvre 1986, 1993a; Lefebvre and Kaye (eds) 1986; Lefebvre and Lumsden 1989, 1994a, 1994b.

4 Creoles which present little similarity with their superstratum languages are referred to as radical creoles.

5 A thorough discussion of the research methodology can be found in Lefebvre (1998a: 52–78) where the following methodological points are raised: the typological features of the source languages of Haitian, the superstratum data the creators of Haitian were exposed to, the linguistic test designed to test the relexification hypothesis of creole genesis, what counts as evidence for the hypothesis and how it can be falsified, the source of data and the mode of data analysis.

6 This idea is attributable to John Lumsden (research seminar, Fall 1993). Its implementation is mine.

7 In spoken French, *quelle chose* is grammatical but it is very unusual to use it in questions of the following type: *Quelles choses as-tu achetées?* 'What things did you buy?' The complex phrase *qu'est-ce que* (lit.: 'what is it that') is the expression generally used to question objects.

8 Note that in Haitian, the surface sequence *krab yo a* [crab 3pl DEF] is licit with the interpretation 'their crab' where *yo* is interpreted as the possessor (see section 3.3.1.2.1 on pronouns), rather than as the plural marker.

9 The inventory of TMA markers in Haitian and Fongbe is established in Lefebvre (1996b) on the basis of syntactic tests which set the preverbal markers apart from modal and aspectual verbs. First, they all occur between the subject and the verb.

Second, preverbal markers occurring in the same column in Table 3.4 are mutually exclusive, showing that they are in a paradigmatic relationship. Third, while modal verbs do allow for deletion of their VP complement, preverbal markers do not (for Haitian, see Koopman and Lefebvre 1982; Magloire-Holly 1982; Spears 1990; for Fongbe, see Lefebvre 1996b). Fourth, most of the preverbal markers in Table 3.4 have no meaning outside of the TMA system. Finally, the TMA markers may combine to form complex tenses.

[10] For extensive discussions on the properties of the two French homophonous complementisers *que*, see Goldsmith 1978; Hirschbühler 1978; Kayne 1976, 1978; etc.

[11] The discussion is based on a comparison of Haitian, French and Fongbe (and other Gbe and Kwa languages). The Bantu languages have parametric values which are sometimes quite different from those of the Kwa languages. They are not considered here (for a discussion on this issue, see Lefebvre 1998a: 390–393).

[12] On the basis of facts involving adverb placement in Haitian and Fongbe, DeGraff (1994) challenges the conclusion that Haitian and Fongbe are alike with respect to verb raising. A rebuttal of his analysis can be found in Lefebvre (1998a: 353–355).