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# The respective contributions of L1 and L2 in the creation of L3: The genesis of creoles, a particular case of second language acquisition*

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Abstract

Creole languages have long been claimed to constitute a particular case of second language acquisition. While these languages are often considered to constitute a crystallised incomplete stage of second language acquisition, it is also the case that their properties are not distributed randomly between their source languages. While the phonological representations of words tend to be derived from the superstratum language, the semantic and syntactic properties of creole lexical entries tend to follow those of the substratum languages. This raises the question of why and how creole languages have crystallised in the way they have. This question is the focus of this paper. It is argued that, in creole genesis, speakers of the substratum languages use the properties of their native languages (L1) in creating the creole (L3) as they attempt to acquire the superstratum language (L2) in a situation where they have reduced exposure to L2. It is shown that recourse to the process of relexification is essential in building a new lexicon in such situations.

## 1. Creole genesis: A particular case of L2 acquisition

Creole languages have long been claimed to constitute a particular case of second language acquisition (*cf.* e.g. Thomason & Kaufman 1991). They generally emerge in multilingual societies (e.g. Whinnom 1971) where there are several substratum languages, which I will refer to collectively as L1, and a single supertratum language which I will refer to as L2. This situation creates the need for a *lingua franca* (e.g. Hymes 1971a; Foley 1988; Singler 1988; Thomason & Kaufman 1991; etc.), not only for the substratum and superstratum speakers to communicate but also for the speakers of the various substratum languages to communicate with each other. This *lingua franca* is the creole or L3. Compared with regular cases of linguistic change, creoles are created in a relatively short span of time (e.g. Hall 1958; Voorhoeve 1973; Alleyne 1966; etc.).

Crucially, in the genesis of radical creoles (that is, those that are least like their superstratum languages), speakers of the substratum languages have very limited access to the superstratum language (e.g. Thomason & Kaufman 1991; etc.). As a consequence, they fail to identify the semantic and syntactic properties of the lexical entries that they are exposed to; for example, although they are exposed to the functional categories of the superstratum language (*cf.* Alleyne 1971; Lefebvre in press), they do not identify them as such, a fact that has been noted several times in the literature (Lefebvre 1984; Carden & Stewart 1988; Lefebvre & Lumsden 1989a; etc.). Creole languages are often considered to constitute a crystallised incomplete stage of second language acquisition (*cf.* Alleyne 1971; Schumann 1978; Valdman 1980; Andersen 1983a; Thomason & Kaufman 1991; etc.). This is because, unlike in other cases of L2 acquisition, there

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is no revision of the learners' primary assumptions about L2 due to their insufficient exposure to that language. The degree of radicalness of a creole is thus considered to be a function of the amount of exposure to L2 (Bickerton 1977; Baker & Corne 1982; Andersen 1983a; Thomason & Kaufman 1991; Baker 1993; Valdman 1978, 1993).

It has long been noted in the literature that creole languages show properties of both L1 and L2 (e.g. Alleyne 1966; Holm 1988; etc.). The presence of L1 features in L3 is generally claimed to be the result of transfer (e.g. Weinreich 1953) or of calquing (e.g. Keesing 1988). As has been pointed out in several instances, however, the properties of L1 and L2 in L3 are not distributed randomly between the source languages. While the phonological representations of words tend to be derived from the superstratum language, the semantic and syntactic properties of creole lexical entries tend to follow those of the substratum languages (*cf.* Adam 1883; Sylvain 1936; Goodman 1964; Huttar 1971; Voorhoeve 1973; etc.). This raises the question of why and how creole languages have crystallised in the way they have.

This question is the focus of this paper. It is addressed on the basis of data drawn from an extensive comparative study of Haitian creole with two of its major contributing languages: Fongbe, one of its West African substratum languages (*cf.* Singler 1996), and French, its superstratum language. The comparative analysis is cast within the framework of recent developments in generative linguistics (*cf.* e.g. Chomsky 1981, 1986, 1989, and related work).

Since creole languages are natural languages, we should be able to account for their properties within the framework of the processes otherwise known to be involved in language genesis and change in general. The major processes that have been shown to play a role in language genesis and language change are relexification, argued to be crucial in the genesis of mixed languages (*cf.* Muysken 1981; Bakker & Mous 1994a, b), reanalysis (e.g. Lightfoot 1979) and dialect levelling (*cf.* e.g. Domingue 1980, 1981; Trudgill 1986; etc.). All three processes have been shown to play a role in creole genesis (for relexification, see Lefebvre in press and the references therein; for reanalysis, see Sankoff 1991; Bruyn 1996; for dialect levelling, see Mühlhäusler 1980; Mufwene 1990, 1993a; Harris 1991; Siegel to appear; Lumsden & Lefebvre 1994; etc.). Due to space limitations, this paper will only examine the role of relexification. This process is defined as follows by Muysken (1981: 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." As will be shown in the data sections, the cases of transfer or calquing referred to earlier are in fact produced by relexification.

Section 2 outlines the hypothesis underlying the research reported on in this paper. Section 3 discusses the formal representation of the process of relexification and how it is hypothesised to apply in creole genesis and provides data illustrating the phenomenon. Sections 4 and 5 discuss parameters and interpretive data, respectively. A concluding section shows how the theory of creole genesis outlined in section 2 accounts for the general properties of creole languages as a particular type of second language acquisition.

## 2. The hypothesis[1]

The general hypothesis underlying the research reported on here is that the creators of a radical creole are adult native speakers of the substratum languages who use the properties of their native lexicons and grammars in attempting to acquire the superstratum language. This results in the creation of a third language: the creole. The research is cast within the framework of a model of grammar such as that in Chomsky (1986, 1989). Part of knowledge of language is universal (and thus need not be learned) and part is language-specific (and thus needs to be learned). In this framework, the components of grammar which allow for variation between languages are the lexicon, the parameters, the interpretive component and the phonological component. Within this model, the hypothesis predicts that the properties of language that are universal will also be found in creoles. Differences between creoles and their source languages should be reflected in the components of the grammar that allow for variation between languages. Thus, the hypothesis may be formulated as follows:

(A) Adult native speakers of the substratum languages use the syntactic and semantic properties of their own lexicons in creating a common lexicon on the basis of superstratum phonetic strings; this is mainly achieved by relexification;

(B) They use the parametric values of their native grammars in establishing those of the creole; as we will see below, this is related to the fact that the functional categories of creole languages reproduce those of their substratum languages either through relexification or reanalysis;

(C) They use the interpretive rules of their own grammar in concatenating morphemes and words (that is, in forming derived words and compounds);

(D) They use the phonological inventories and principles of their own grammar in interpreting the phonetic sequences of the superstratum language that they are exposed to.

The methodology used to test this hypothesis consists in a detailed comparison of a creole with its source languages. Section 3.4. provides examples showing the properties of the Haitian lexicon (point (A) of the hypothesis). Sections 4 and 5 discuss points (B) and (C), respectively. Point (D) is not discussed in this paper (*cf.* Brousseau, in preparation).

## 3. Building a lexicon by means of relexification in creole genesis

### *3.1. The formal representations of the process*

The first formal definition of relexification was provided by Muysken (1981: 61).

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1 The hypothesis of creole genesis was formulated jointly with Jonathan Kaye within the framework of an FCAR project.

(1) SOURCE LANGUAGE

$$\begin{bmatrix} /\text{phon}/_i \\ \text{SYN}_i \\ \text{SUB}_i \\ \text{SEM}_i \\ \text{SEL}_i \end{bmatrix}$$

TARGET LANGUAGE[2]

$$\begin{bmatrix} /\text{phon}/_j \\ \text{SYN}_j \\ \text{SUB}_j \\ \text{SEM}_j \\ \text{SEL}_j \end{bmatrix}$$

NEW LANGUAGE

$$\begin{bmatrix} /\text{phon}/_{j'} \\ \text{SYN}_i \\ \text{SUB}_i \\ \text{SEM}_i \\ \text{SEL}_i \end{bmatrix}$$

(=(17) in Muysken 1981)

On this view, 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. Following the terminology in Lefebvre & Lumsden (1994a, b), I will refer to the second step of relexification as relabelling. According to Muysken's (1981: 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."

Lefebvre & Lumsden (1994a, b) propose a slightly different representation.

(2) ORIGINAL LEXICAL ENTRY

$$\begin{bmatrix} [\text{phonology}]_i \\ [\text{semantic feature}]_k \\ [\text{syntactic feature}]_n \end{bmatrix}$$

LEXIFIER LANGUAGE

$[\text{phonetic string}]_j$ used in specific semantic and pragmatic contexts

NEW LEXICAL ENTRY

$$\begin{bmatrix} [\text{phonology}]_{j'} \text{ or } [\emptyset] \\ [\text{semantic feature}]_k \\ [\text{syntactic feature}]_n \end{bmatrix}$$

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

In the above representation, relabelling proceeds on the basis of *phonetic strings* found in the superstratum language rather than the phonological representations of the superstratum lexical entries. There are numerous examples in the literature showing that a phonetic string used to relabel a copied lexical entry does not necessarily correspond to a word in the lexifier language. Instead, it may correspond to a sequence of words; for example, the Tok Pisin lexical entry *baimbai* > *bai* is derived from the English expression *by and by* (*cf.* Sankoff & Laberge 1973). Cases like this are

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2 The term *target* language might not be the most appropriate one given the various circumstances in which relexification applies. Mühlhäusler (1986), Thomason & Kaufman (1991), and Baker (1990) have discussed this issue extensively. In this text, I will use the term *lexifier language* instead.

known as "freezing" in the literature on languages in contact. Furthermore, as is argued by Brousseau (in preparation), 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 superstratum form. And although the phonological system of the 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 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 because relexifiers either do not have access to this information (as in creole genesis) or, if they do, they do not use it in creating the new lexical entry (as in mixed language genesis). For example, a verb may be relabelled on the basis of a noun in the superstratum language (e.g. the Haitian verb *bezwen* 'to need' which takes its phonological representation from the French noun *besoin* 'need'). Furthermore, the representation in (2) allows for a functional category lexical entry to be relabelled on the basis of a major category lexical entry in the superstratum language. For example, as will be shown below, the determiner of the substratum languages of Haitian has been relabelled on the basis of the French adverb *là* (lit. 'there'). 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) is a process which consists in copying the properties of a lexical entry and relabelling it. In Lefebvre (in press), it is assumed that copying applies to all lexical entries and that it is relabelling which is semantically driven. Thus, only lexical entries that have some semantic content may be assigned a new label. Those lexical entries which have no semantic content (e.g. Case markers, operators, etc.) are copied but not relabelled. They are assigned a null form in the new lexicon (*cf.* (2)). As has been pointed out by Lefebvre & Lumsden (1994b), practically speaking, this means that, when required in a sentence, these lexical entries are not pronounced. The claim that functional categories may be assigned a null form at relabelling is independently motivated by the fact that, in natural languages, functional categories required by Universal Grammar are not always spelled out. The category Case is an example in point. While some languages, such as Latin, Turkish or Quechua, do exhibit overt morphological cases, other languages, such as English, do not. Noun phrases are universally required to bear Case, however, by virtue of the Case Filter (*cf.* Chomsky 1981). It has been argued that, in languages which do not have overt Case markers, the category Case is projected in the syntax, as in other languages (as K(ase)P, in Travis & Lamontagne's 1992 proposal), but that Case is null in these languages. The claim that functional category lexical entries may be assigned a phonologically null form thus finds independent motivation in the fact that, in some languages not known to be creoles, functional category items may in fact be null. Lefebvre (in press) extensively argues that the properties of the phonologically null forms of a creole can be deduced by the language learners on the basis of the data that they are presented with.

In his account of the genesis of Inner Mbugu or Ma'a,[3] Mous (1995: 1) proposes yet another representation of the process of relexification. In his view, the process is seen as paralexification, which creates a new phonological form for a given lexical entry. "Paralexification is the addition of a word form to a lexical entry. This added form is on a par with the existent 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) $\begin{bmatrix} [\text{phonology}]_i \ / \ [\text{phonology}]_j \\ [\text{semantic feature}]_k \\ [\text{syntactic feature}]_n \end{bmatrix}$

In my view, paralexification (as in (3)) and relexification (as in (1) or (2)) constitute 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 representations in (1) or (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), on the other hand, speakers have a single lexicon wherein each lexical entry has two phonological representations which can be used alternately. Whichever representation we choose, the process produces lexical entries that have the semantic and syntactic properties of lexical entries in L1 and phonological representations drawn from L2.

### 3.2. *Does relexification apply throughout the lexicon?*

By definition, relexification is a process that applies to lexical entries. By hypothesis, the process should be able to apply to all types of lexical entries. Of course, in order to determine what constitutes a lexical entry, we need a theory of the lexicon. Current theories distinguish between major category lexical items, defined by the major syntactic features [±N, ±V] (i.e. nouns, verbs, adjectives, prepositions and derivational affixes identified for major categorial features), and minor or functional category lexical items, defined by minor syntactic features such as [±WH], [±T], etc. (i.e. determiners, complementisers, tense markers, etc.) (*cf.* Chomsky 1972, 1986, 1989; Jackendoff 1977, and related work). The lexicon of a language is currently assumed to contain nouns, adjectives, verbs, prepositions, derivational affixes, determiners, complementisers, etc., and idiosyncratic or unpredictable compounds. Words that are productively derived and productive compounds are not listed in the lexicon (*cf.* Lieber 1980, 1992). Given the definition of relexification and assuming a theory of the lexicon such as that summarised above, it should be

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3 Inner Mbugu or Ma'a is a mixed language spoken in Tanzania.

possible to relexify all of the former types of lexical items (i.e. those listed in the lexicon) but not the productively derived words and compounds.

Since the process is semantically driven, however, only lexical entries with some semantic content will be relabelled. As we saw above, lexical entries that have no semantic content will be carried over into the creole as null forms. Moreover, relabelling is also constrained by what the superstratum language has to offer, as we will see below.

### 3.3. How does relexification apply in creole genesis?

As Lefebvre & Lumsden (1994a) show, from the point of view of the relexifiers, relabelling consists in identifying, in the superstratum language, an appropriate phonetic string to provide a phonological representation for a copied lexical entry (*cf.* (2)). For major category lexical entries, an appropriate form in the superstratum language is a phonetic string which shares some meaning with the corresponding lexical entry in the copied lexicon. The meaning of the superstratum form is assumed to be deduced from its occurrence in semantic and pragmatic contexts (*cf.* (2)). For functional categories, the process is slightly more complex.

Recall that the creators of a radical creole cannot identify the functional categories of the superstratum language because they do not have enough exposure to the language. Consequently, relexifiers do not relexify the functional category lexical entries of their own lexicons on the basis of those of the superstratum language. In Lefebvre & Lumsden (1994a), it is proposed that the functional category lexical entries of L1 are relabelled on the basis of *major* category lexical items of L2 (e.g. nouns, adjectives, verbs, adverbs and prepositions). For example, the postnominal determiner of the substratum languages of Haitian has been relabelled on the basis of a French adverb (*cf.* section 4). Furthermore, Lefebvre & Lumsden (1994b) propose that relabelling of a functional category lexical entry responds to three types of cues. First, as is the case for major category lexical entries, there must be some semantic overlap between the lexical entry copied from the substratum lexicon and the superstratum form (*cf.* (2)). Hence, only those functional category lexical entries which have some semantic content can be relabelled. Functional category lexical entries without semantic content are assigned a null form at relabelling (see above). Second, the distributional properties of the superstratum form must be similar to those of the original lexical entry. For example, a postnominal determiner may be relabelled on the basis of a superstratum form which also occurs postnominally. Relabelling of functional category lexical entries is thus constrained by what the superstratum language has to offer in terms of major category lexical items whose semantics and distribution are appropriate to provide a phonetic matrix for a copied functional category lexical entry. The limits imposed by the superstratum lexicon predict that a given subset of substratum lexicons relexified using data from different superstratum languages may end up with slightly different inventories of overt functional categories. Third, relabelling of a functional category lexical entry may also respond to a phonological similarity between the substratum and superstratum lexical entries. This is the phenomenon of phonological conflation discussed by Kihm (1989, 1994). In other words, phonetic similarity of the superstratum string and the substratum lexical entry may trigger relabelling. For example, as Kihm (1989) shows, where Manjaku, a West African language, has the forms *dika*, an unaccomplished negation marker, and *kats*, a negative auxiliary meaning 'no longer', and Portuguese has *nunca* 'never',

Kriol – a West African Portuguese creole – has *ka*, a sentential negative marker (*cf.* Kihm 1989). (See also Mühlhäusler 1986, for several examples of conflated forms in Tok Pisin.)

What happens if speakers of the substratum languages do not find any appropriate string in the superstratum language to relabel a lexical entry from their own lexicon? One possible option is to abandon the lexical entry. Another option, discussed in Lefebvre & Lumsden (1992, 1994b), is to assign the copied functional category lexical entry a phonologically null form (represented as ø in the schema in (2)). That is, when this item is used in a sentence, it is not pronounced. The difference between the two options is visible in the syntax of the creole as compared with that of its substratum languages. As is extensively discussed in Lefebvre (in press), a substratum lexical entry is considered not to have been reproduced if nothing in the syntax of the creole signals its presence. By contrast, a substratum lexical entry is considered to have been assigned a null form if it is "visible" in the syntax of the creole. Furthermore, as has been pointed out in Lefebvre & Lumsden (1992, 1994b), a functional category lexical entry that has been assigned a null form at relabelling may be signalled by a periphrastic expression. For example, a lexical entry with a temporal / aspectual meaning but a null phonological representation may be signalled by the use of an adverb with a similar meaning. The periphrastic expression may later become the phonological representation of the lexical entry initially assigned a null form, through the process of reanalysis (*cf.* Lefebvre & Lumsden 1994b; Lefebvre in press; etc.).

### *3.4. The Haitian lexicon*

An extensive evaluation of the relexification hypothesis against the data is provided in Lefebvre (in press). In this section, I provide a few examples illustrating the division of properties predicted by the relexification hypothesis.

*Nouns*

In the examples below, the Haitian nouns have phonological representations derived from French. In each case, however, there is an extra meaning associated with the Haitian lexical entry which is also associated with the corresponding entry in Fongbe. The division of properties observed in the Haitian lexical entries follows from the process of relexification.

(4)

| 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 in press)

*Verbs*

Likewise, while the Haitian verbs in (5) have the same semantic specifications as the substratum lexical entries, they derive their phonological representation from semantically related French verbs. Note that the Haitian lexical entry *gade* has the same range of meanings as the corresponding Fongbe verb. These meanings are encoded in French in three different lexical entries. The source of the properties of the Haitian lexical entries in (5) follows from the relexification hypothesis.

(5)

| 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 look' | 'to look' |
| 'to imitate' | imiter: 'to imitate' | 'to imitate' |

(from Lefebvre in preparation)

An extensive study of the semantic properties of verbs in Lefebvre (in preparation) shows that the above pattern recurs throughout Haitian. Furthermore, the detailed comparison of the sytactic properties of verbs in Lefebvre (in press) shows that Haitian verbs also share their syntactic properties with substratum verbs rather than with the French verbs from which they derive their phonological representations.

*Derivational affixes*

Brousseau, Filipovich & Lefebvre (1989) and Lefebvre & Lumsden (1994a) argue that the derivational affixes of Haitian must have been produced by relexification: both the size and the specific inventory of these affixes correspond to data from one of the substratum languages and contrast strikingly with the lexifier language data.[4]

*The Tense, Mood and Aspect markers*

The data below show that the inventory of the Haitian markers encoding Tense, Mood and Aspect is the same as that of Fongbe (with one exception: Haitian lacks a habitual marker). In Lefebvre (1993, 1996b), it is extensively argued that the pairs of Haitian and Fongbe markers share the same semantic and syntactic properties. Furthermore, they combine in the same way to form complex tenses. The phonological representations of the Haitian markers are derived from French periphrastic forms. Aside from sharing some semantics with the original lexical entries, the French forms contrast with those of Haitian. Once again, these facts argue for a relexification account of the Haitian data.

(6)

| ANTERIOR | | IRREALIS | | NON-COMPLETE | | | |
|---|---|---|---|---|---|---|---|
| • Past/ Past perfect | | • Definite future | | • Habitual | | • Imperfective | |
| H | F | H | F | H | F | H | F |
| te | kɔ̀ | ap | ná | — | nɔ̀ | ap | ɖɔ̀…wɛ̀ |
| | | • Indefinite future | | | | | |
| | | H | F | | | | |
| | | a-va | ná-wá | | | | |
| | | • Subjunctive | | | | | |
| | | H | F | | | | |
| | | pou | ní | | | | |

(=(115) in Lefebvre 1996b)

*Functional categories involved in nominal structure*

The functional category lexical entries involved in the nominal structure of Haitian and Fongbe are shown in (7). They contrast in two striking ways with the functional category lexical entries involved in French nominal structure, shown in (8). In both Haitian and Fongbe, the functional category lexical entries occur to the right of the noun in contrast with French, where they occur to the left of the noun. Moreover, in Haitian and Fongbe, the nominal structure may contain several determiners in a row; in example (7), the nominal structure contains a Genitive phrase, a demonstrative, a definite determiner and a plural marker. This contrasts with French, where the nominal structure can contain only one determiner, as shown by the contrast in grammaticality between (8a) and (8b).

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4 For a discussion of how relexification applies in the case of derivational affixes, *cf.* Lefebvre (in press).

(7)

| | | | | | | |
|---|---|---|---|---|---|---|
| krab | [mwen | ø] | sa | a | yo | HAITIAN |
| àsɔ́n | [nyɛ̀ | tɔ̀n] | élɔ́ | ɔ́ | lɛ̂ | FONGBE |
| crab | me | GEN | DEM | DET | PL | |

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

(8) a. * le mon ce crabe FRENCH
DET POSS DEM crab

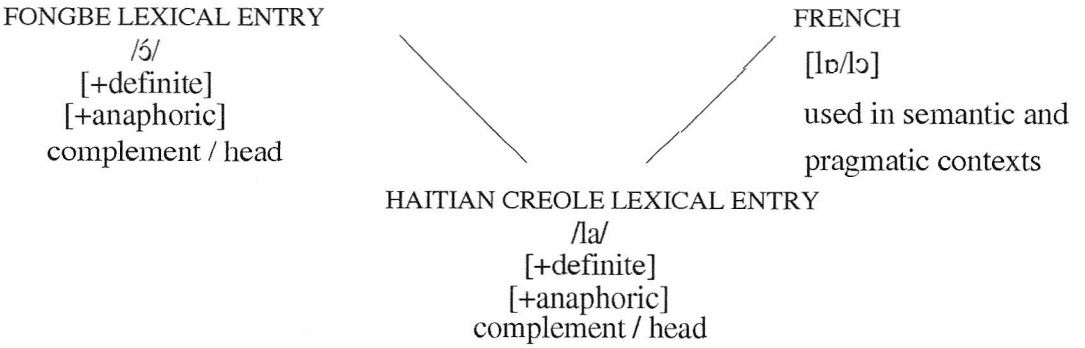
b. { le / mon / ce } crabe FRENCH

' { the / my / this } crab'

(from Lefebvre in press)

It has been argued that the Haitian data follow once again from the relexification hypothesis. A detailed analysis of the semantic, syntactic and distributional properties of the Haitian determiner shows that the properties of this lexical entry are clearly parallel to those of the corresponding lexical entry in Fongbe whereas they contrast with the properties of the determiner in the lexifier language. For example, the Haitian and Fongbe determiners are not only definite, they are also anaphoric in the sense that they can only be used to refer to known information. In contrast, the French determiner may be cataphoric (*cf.* Milner 1978). Furthermore, the Haitian and Fongbe determiners play an important role in the syntax of the clause and in constructions involving verb-doubling phenomena. The French determiner does not play any role in clausal syntax and verb-doubling does not exist in this language. On the basis of these facts and others, Lefebvre (1992, 1996a, to appear b) argues that the Haitian determiner has been created through the process of relexification. In this case, the new label for the copied lexical entry was provided by the French adverbial *là* (lit. 'there') which occurs as a discourse marker at the end of constituents (*cf.* Vincent 1984). On Lefebvre's (in press) analysis, the relexification of the substratum determiner would have proceeded as depicted in (9)

(9)

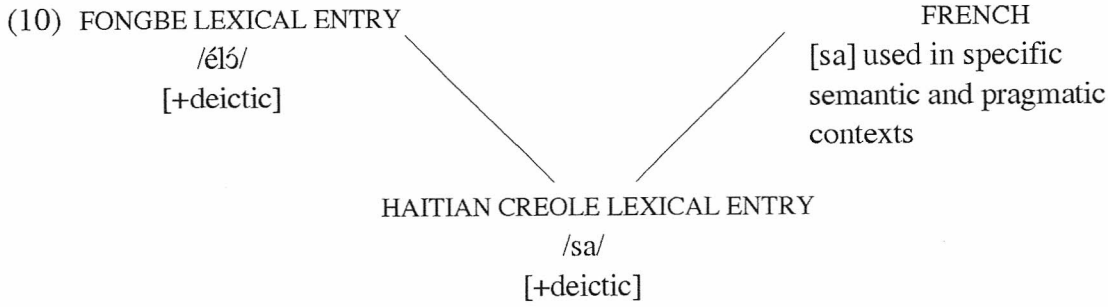


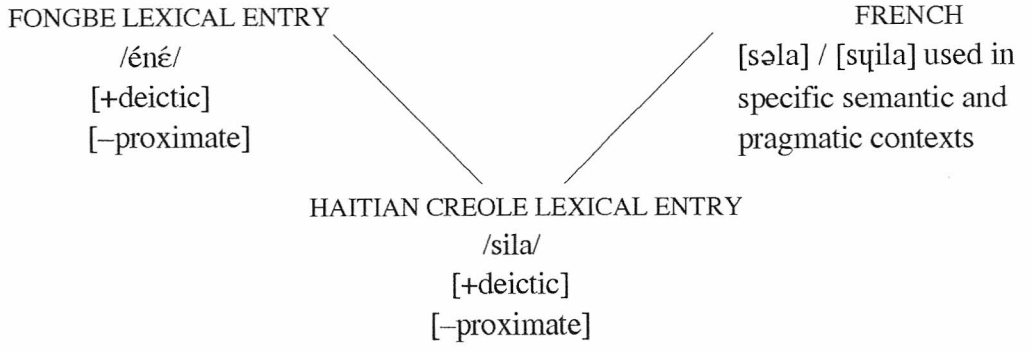

(from Lefebvre in press)

As Lefebvre (to appear a) discusses in detail, Haitian, like Fongbe, has two demonstrative terms. Pairs of Haitian and Fongbe demonstrative terms share the same semantic and syntactic

properties. In contrast, French has eleven such terms. While in Haitian and Fongbe the negative value of the feature [α proximate] is lexically encoded, in French, it is the positive value of that feature which is lexically encoded. On the basis of these (and other) facts, Lefebvre (to appear a) proposes to account for the Haitian data as depicted in (10).

(10)




(from Lefebvre to appear a)

As can be seen in (7), while Genitive Case is overt in Fongbe, it is phonologically null in Haitian. Lumsden (1991) has argued that the properties of the null Case marker correspond to those of the substratum language Genitive Case. This follows from the relexification hypothesis as follows. Since Case markers have no semantics, they cannot be relabelled. They are copied but they are assigned a null form at relabelling and they are not pronounced.

### *3.5. Summary*

The examples presented in this section comprise only a few selections from the massive amount of data showing the role of relexification in the genesis of a creole lexicon. The same division of properties is observed over and over again in all areas of the lexicon.

## 4. Parameters

The hypothesis set out in section 2 states that the creators of a creole do not have sufficient access to the superstratum language to acquire its parametric values and thus rely on the parametric values of their own grammars to assign values to the parameters of the language that they are creating. The hypothesis predicts that, where the parametric values of the substratum and

superstratum languages differ, the creole should have the same parametric value as the substratum languages.

With one exception, the three-way comparison in Lefebvre (in press) supports this general hypothesis. Syntactic clitics were not incorporated into the creole, and so the creators of Haitian had to reset the value of the null subject parameter; thus, whereas both French and Fongbe are null subject languages, Haitian is not. The other parameters are formulated in terms of correlations between the availability of certain functional categories and a related syntactic phenomenon. Hence, most parametric options set in the creole are the result of its creators' reproducing the properties of the functional categories of their own lexicons through relexification. The correlations discussed at length in (Lefebvre in press) are summarised below. The correlation in (A) was proposed by Chomsky (1981) and to Pollock (1989). The correlation is (B) is due to Muysken (1988), Baker (1991) and Déchaine (1993). The correlation in (C) is from Johnson (1991). The correlation in (D) is due to Deprez (in press) and that in (E) to Lefebvre (in press).

(11)

| | Availability of | FONGBE | HAITIAN | FRENCH |
|---|---|---|---|---|
| (A) | Verb raising to INFL (correlates with inflectional morphology on the verb) | – | – | + |
| (B) | Serial verbs (correlates with lack of derivational and inflectional morphology) | + | + | – |
| (C) | Double-object constructions (correlates with availability of Genitive Case in nominal structures) | + | + | – |
| (D) | Negative quantifiers as NPs (correlates with availability of bare NPs) | + | + | – |
| (E) | Verb-doubling phenomena (correlates with the properties of the determiner system) | + | + | – |

(from Lefebvre in press)

As can be seen above, the parametric options of Haitian systematically contrast with those of French and follow those of substratum languages of the type of Fongbe.

I therefore conclude that our hypothesis is borne out by the Haitian data. This conclusion is further supported by Koopman's (1986) observation that other subsets of data, which can also be formulated in terms of parametric options, behave similarly. For example, Koopman (1986) remarks that in Haitian, as in West African languages, headless and infinitival relative clauses are not available. This contrasts with French, which has both constructions. Koopman further points out that, in contrast to French, where the set of phenomena referred to as quantifier float is available, Haitian and West African languages lack such phenomena.

## 5. The interpretive component

The hypothesis presented in section 2 states that the creators of a creole use the principles of their own grammars in establishing the semantic interpretation data of the new language that they are creating. Various types of data show that this is indeed the case.

For example, in contrast with French, both Haitian and Fongbe allow for bare sentences. The temporal interpretation of such sentences in Haitian follows the same pattern as in Fongbe (and presumably other similar substratum languages, *cf.* Lefebvre 1996b). Also pertinent for this issue is the concatenation of morphemes and words into larger units. Derivational morphology constitutes a case in point. Lefebvre (in press) shows that quite a large number of Haitian derived words do not correspond to derived words in French whereas, in most cases, there are similar derived words in Fongbe. The principles underlying the concatenation of simplexes into productive compounds constitute yet another example. As is argued in Lefebvre (in press), the principles that govern productive compounding in Haitian are those of its substratum languages and not of its lexifier language. The sample compounds in (12) illustrate this claim. The Haitian data are from Valdman *et al.* (1981) and Brousseau (1988); the Fongbe data are from Segurola (1963), Rassinoux (1987), and Brousseau (1988).

(12)

| | HAITIAN | FRENCH | FONGBE | |
|---|---|---|---|---|
| a. | tèt-chòv<br>(tête-chauve)<br>'head bald' | chauve | tà-súnsún<br><br>'head-bald' | 'bald (person)' |
| b. | tèt-chaje<br>(tête-troublé)<br>'head-troubled' | personne-problème | tà-gbà<br><br>'head-troubled' | 'problematic (person)' |
| c. | je-pete<br>(oeil-pété)<br>'eye-burst' | aveugle | nùkún-tɔ́n-nɔ̀[5]<br><br>'eye-burst-ATT' | 'blind (person)' |
| d. | je-chèch<br>(oeil-sec)<br>'eye-dry' | audacieux | hɔ̌n-wùn<br><br>'clear-eye' | 'audacious (person)' |
| e. | je-fò<br>(oeil-fort)<br>'eye-strong' | prétentieux | nùkún-kɛ̀n<br><br>'eye-strong' | 'pretentious (person)' |
| f. | tèt-di<br>(tête-dure) or<br>'head-hard' | entêté<br>tête-dure | tà-mɛ̀-siɛ́n-tɔ́<br><br>'head-in-hard-AG' | 'stubborn (person)' |

[5] The suffix *-nɔ́* which occurs in the Fongbe compound in (12c) is the attributive suffix. The suffix *-tɔ́* which occurs in (12f) is the Agentive.

As can be seen in (12), the Haitian compounds are made up of words which take their phonological representations from the phonetic matrices of French words. With the exception of (12f), these particular French words are not concatenated as compounds corresponding to the Haitian ones. Furthermore, the concepts rendered by a compound in Haitian are rendered by a simplex in French. As shown in (12), both the semantics of the Haitian words involved in the compounds and the structure of these compounds follow the Fongbe pattern. The very fact that Haitian uses compounds where French has simplexes shows that the Haitian compounds in (12) are not derivable from French. And the fact that these compounds follow the semantics and structure of the Fongbe equivalents shows that the creators of Haitian used the principles of their own grammars in concatenating simplex nouns. Finally, the relexification hypothesis accounts for the fact that the creators of Haitian did not identify the French simplexes in (12): they did not have such lexical entries to relexify.

## 6. Conclusion

The data discussed in this paper show that the Haitian lexicon and grammar follow the details of its substratum language. To a large extent, this is due to the process of relexification. In Lefebvre (in press) it is shown that none of the functional category lexical entries of French have made their way into Haitian. By contrast, most of the functional category lexical entries of the substratum language have entered the creole.

The theory of creole genesis outlined in section 2 accounts for the general properties of creole languages discussed in section 1. Recourse to relexification allows for the creation of a common vocabulary in a multilingual situation where a *lingua franca* is needed. Given the nature of relexification, the new language can be created relatively quickly. The process of relexification explains why the properties found in creole lexical entries are distributed between the source languages in a principled way, and thus why creole languages have crystallised in the way they have.

Relexification is a cognitive process available to human minds which is put to work in various situations. In creole genesis it is used as a tool for acquiring a second language in a context where there is not much exposure to the target language. It is to be expected that this process will also be used as a means of second language acquisition in situations that do not necessarily involve the formation of a new language.

By definition, relexification is used by speakers who are in possession of a mature lexicon. The relexified lexicons constitute the first instantiation of a new language: the early creole. Given that relexification can be shown to play a major role in creole formation, it cannot be the case that creoles are created by children who are deprived of a model for language, as is advocated by Bickerton (1981, 1984). Rather, it appears that they are created by speakers who already master a mature lexicon and grammar.

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