12 Creole Studies and Multilingualism

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1 Introduction

Creole studies is essentially part of historical linguistics. It tries to understand how a group of new languages emerged, and how their structural and lexical features can be related to the circumstances of their genesis. In contrast, multilingualism research lies at the intersection of sociolinguistics and psycholinguistics. It tries to understand, usually in contemporary settings, how multilinguals use their languages, and what are the consequences of multilingual language use for the individuals, their speech communities, and for the languages involved. Formulated in this way, multilingualism research and creole studies are far apart, and in fact the researchers involved in the two disciplines form different scientific networks, read different journals, fight about different things, etc. Nonetheless, there are good reasons to explore the links between the two fields, since, in anybody’s reckoning, pidgin and creole genesis is a multilingual matter. Crucial, in this respect, is the adoption of the Uniformitarian Hypothesis (Labov 1972), which leads to the assumption that the sociolinguistic and psycholinguistic processes operant in the genesis of pidgins and creoles in earlier times are the same as those operant in contemporary multilingual settings. The Uniformitarian Hypothesis is important because creole genesis is all about bi- and multilingualism. If there had been no bi- or multilingualism (henceforth, “multilingualism” will be used for both), creoles would have never arisen. Thus, viewed in a slightly more general perspective, creole studies and multilingualism research are both part of language contact research – as acknowledged, for instance, in the introductions to language contact studies by Sebba (1997) and Thomason (2001).

The psycholinguistic processes we will be considering here have to do with the way the representation and processing of different languages interact in our cognitive system; one model for this has been proposed by Carol Myers-Scotton (e.g., 2002), and there is a large and rapidly growing literature on this. The sociolinguistic processes involved relate to the dynamics of multilingual
interaction (Auer 1998a, 1998b), the transmission of innovations in communicative networks (Milroy & Milroy 1985), the role languages play as symbolic systems in group formation (Le Page & Tabouret-Keller 1985), and the evaluations and ideological constructs surrounding language use (Gal 1989; Woolard 1998).

I will begin by briefly reviewing multilingualism in the settings in which the Caribbean creoles arose, assuming that creole languages elsewhere also emerged in circumstances where many languages were spoken (section 2). Then I turn to a number of subfields in language contact studies where the creole evidence and the evidence from more contemporary contact settings may be confronted (section 3). In conclusion, the perspective that Hugo Schuchardt, one of the founders of creole studies, took on language contact will be brought into relief (section 4). It should be emphasized that sometimes the link between creole studies and other domains in multilingualism research is tentative; I will not try to aim for some grand total scheme.

I limit myself here to the Caribbean creoles, leaving aside pidgins and creoles spoken elsewhere. However, the Pacific and Africa have always known multilingualism to the same extent as the Caribbean, if not more so, and it should be clear that the same general conclusions should hold there whenever the circumstances of genesis are sufficiently similar.

2 Multilingualism in Creole Genesis

2.1 Evidence for multilingualism

Turning for a moment to the evidence we have for the extent and nature of multilingualism in the context of creole genesis, at least four types of data should be mentioned.

Most important, of course, are the historical demographic data on the origins of the people who came to the Caribbean, nationalities of settlers, ports from which slaveships departed, etc. These data are not without problems, since, for example, the port of shipment for slaves was not necessarily their place of origin and, therefore, does not necessarily indicate the languages they spoke (see Arends, this volume).

A second important source is contemporary accounts of language use. To give but one example, Van Oldendorp ([1777] 1987, pp. 200–6) lists a phrase (“Christ has loved us and has washed away our sins with His blood”), some words (God, Heaven, Sun, Moon, Human, Hand, Foot, Head), and numerals (1–8) in 27 African languages that he found speakers of in the Virgin Islands.

Third, there are the words and grammar features derived from different African languages in present-day Caribbean languages. Thus, Baker (1993) identifies 126 words of Bantu origin, 88 of Kwa origin, and 37 of West Atlantic/Manding origin in the French-lexifier creoles of the Caribbean. There is, however, one important caveat here: the presence of African lexical elements from
different language backgrounds in a creole is not necessarily evidence for extensive multilingualism, since the different African languages could have been and often were introduced at different times.

Finally, there are the secret and ritual languages, remnants of earlier African languages, still in use today or until recently (Smith 1996).

2.2 Early creole communities as complex multilingual settings

It is clear that creoles emerged in multilingual settings. These were multilingual along a number of different dimensions.

First of all, different native languages were spoken by the slaves. It is truly exceptional to find a slave plantation where all or a large majority of the imported slaves spoke a single language. Such a case may be Berbice in Guyana, and this is reflected in the exceptional features of the resulting creole (Smith, Robertson, & Williamson 1987; Kouwenberg 1992). More usual are cases where it appears that a number of different African languages were spoken alongside each other by the initial slave population. Moreover, many of the slaves brought as captives may have been bilingual or multilingual.

Also, in several plantation communities, there may have been different contributing pidgins and creoles. Thus in the Danish Virgin Islands (now the US Virgin Islands) it is possible that a Dutch pidgin was introduced when Dutch slaveowners left St. Eustatius around 1667 and took their slaves with them to St. Thomas, the principal island of the Danish Virgin Islands (Goodman 1985). Slaves who were later brought from Curaçao and probably spoke Papiamentu also contributed to the emerging creole (Hesseling 1933). Thus we find items such as kabaj ‘horse’, parie ‘give birth’, and ka ‘perfective’ of Ibero-Romance origin.

Finally, different European superstrate or lexifier languages were involved in many island and mainland colonies. The European powers were in competition with each other, and some colonies frequently changed hands. Furthermore, European settlers in a colony often had different nationalities. To take the case of St. Thomas again, the nationalities of the planters in 1688 are as in table 12.1. In 1688 there were 422 slaves in St. Thomas, and 317 whites. Altogether, the picture that emerges is that the plantation communities in which the creoles were formed were complex multilingual settings.

2.3 Generational effects, loyalty, and shift

Another question is: How long did multilingualism last in the creole communities? The standard perspective on language shift among immigrant groups is the three-generation model: a first generation fully competent in the native language and with various degrees of competence in the new language; a second generation competent in the new language and with various degrees of competence in the original community language; a third generation with only
Table 12.1 The white population (in number of households) of St. Thomas in 1688 (from Arends & Muysken 1992, p. 51, based on Sabino 1990)

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Number of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch</td>
<td>66</td>
</tr>
<tr>
<td>English</td>
<td>32</td>
</tr>
<tr>
<td>Danish</td>
<td>20</td>
</tr>
<tr>
<td>French</td>
<td>8</td>
</tr>
<tr>
<td>German</td>
<td>3</td>
</tr>
<tr>
<td>Swedish</td>
<td>3</td>
</tr>
<tr>
<td>Holstein</td>
<td>1</td>
</tr>
<tr>
<td>Portuguese</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>134</td>
</tr>
</tbody>
</table>

limited passive competence in the original community language (e.g., Fishman 1965).

This model is inadequate for our purposes due to a number of considerations. First of all, it conflates two dimensions which should remain separate: various degrees of competence in the second language (L2), and degrees of loss of the first language (L1). It ignores the possibility of prolonged bilingualism, hence of cross-generational competence in both languages.

It also ignores large intergroup differences. The data based on Australian census data in table 12.2 illustrate this. It turns out that immigrant ethnic groups differ considerably in the extent of shift to English as a home language, hence in the degree to which the original language is maintained across the generations. This may further mean that immigrant groups also differ in the degree to which the dominant language (here, English) is acquired, but systematic information which pertains to competence is not given. These differences

Table 12.2 Home language use of a number of immigrant communities in Australia (Clyne & Kipp 1997, p. 459)

<table>
<thead>
<tr>
<th>Country of origin of first generation in 1996 census</th>
<th>Home language use: percentage using English</th>
</tr>
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<tbody>
<tr>
<td>Netherlands</td>
<td>62%</td>
</tr>
<tr>
<td>Germany</td>
<td>48%</td>
</tr>
<tr>
<td>Spain</td>
<td>22%</td>
</tr>
<tr>
<td>Italy</td>
<td>15%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>9%</td>
</tr>
<tr>
<td>Greece</td>
<td>6%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>3%</td>
</tr>
</tbody>
</table>
suggest that other factors may play a role. For creole settings different rates of shift have been commented upon by Roberts (2000) (see discussion in Veenstra, this volume).

Moreover, in creole settings, rather than simply shifting to an existing language, a new language was created, a language which could serve as a symbol for a new social identity. Thus the metaphor of “shift” is not entirely appropriate.

Additionally, there was a long period during which there were no generations to speak of (cf. Arends 1995, pp. 17-18; this volume). To take an admittedly extreme case, life expectancy upon arrival in Suriname during the eighteenth century averaged between five and ten years, even though a slave who survived the first year in the colony by the middle of the eighteenth century had a life expectancy of thirty years (Arends 2001, p. 296). There was an exceptionally low birth rate and high infant mortality.

Finally, African languages were maintained as secret in-group languages for many years, partly in association with religious cults.

Altogether, the three-generation model seems ill-conceived for the Caribbean slave plantations. This may not come as a surprise but merits bearing in mind.

3 Evidence from Language Contact Studies

3.1 Relexification, creoles, and mixed languages

The issue of maintenance and shift becomes particularly relevant when we take mixed (“intertwined”) languages and relexification into account in possible models for creole genesis. Implicitly or explicitly these have been part of creolist thinking since the early developments of the field, e.g., in the work of Adam (1883) and subsequently Sylvain (1936), where creoles are portrayed as a particular kind of mixed language: a European lexicon grafted onto an African semantic and syntactic base. These mixed creoles were assumed to have arisen through relexification. However, definitions of relexification were less rapidly forthcoming. In the 1960s and early 1970s, when monogenesis of pidgins and creoles on the basis of a single West African Portuguese Pidgin was discussed as a serious option, relexification referred to massive lexical replacement (Whinnom 1956). It was thought that the West African Portuguese Pidgin would have had a predominantly Portuguese-derived lexicon, while its various creole successors inherited its structure but replaced its vocabulary with English-, French-, or Dutch-derived items, under the influence of the local dominant European language. A typical example of this line of thinking was Voorhoeve (1973), who attributed the higher proportion of Portuguese-derived words in Saramaccan as compared to Sranan to the fact that the relexification from Portuguese to English lexicon was interrupted when the Saramaccan maroons fled their plantations. Lexical semantic considerations played a minor role. (See Smith 1987, for a different account.)
The perspective on relexification changed with the discovery of Media Lengua (Muysken 1981), a form of Ecuadorian Quechua relexified with Spanish forms at some time in the course of the twentieth century. A typical example follows (adapted from Muysken 1996a, p. 366):

(1) a. *uwixa*-buk *yirba nuwabi-shka* (Media Lengua)
   sheep-for grass there.is.not-SD
   ‘There turns out to be no grass for the sheep.’

   b. llama buk k’iwa illa shka (Quechua)
   c. No hay hierba para las ovejas (Spanish)

Here, the italicized forms are from Spanish, and the bold forms from Quechua. However, the lexical semantics of the Spanish roots in Media Lengua (ML) is also like Quechua. Thus the form *nuwabi-shka* is modeled on Quechua *illa-shka* ‘it turns out there is no . . .’ through the combination of Spanish *no* and the root *habe-* ‘have, existential’. The notion relexification thus involves systematic replacement of the phonetic shapes of lexical items. The model of the lexicon invoked was that of Jackendoff (1975, p. 641), where lexical items were seen as bundles of relatively independent features:

(2) \[ /\text{phon a/} +F \text{ syntactic categorial feature (e.g., [+V])} \\
\text{STEM}+x \text{ morphological composition} \\
\text{stratal a} \text{ possible stratal feature (e.g., ”learned”)} \\
+___X \text{ subcategorization feature (e.g., ”transitive”)} \\
\text{SELECT Y} \text{ selectional feature (e.g., ”human agent”)} \\
\text{MEANING Z} \text{ meaning} \]

Since these features are seen as independent, there are ample possibilities for dissociation.

Elaborating on the original proposal for relexification in Muysken (1981), Lefebvre (1998, p. 16) claims that relexification was the central process operant in the genesis of creole languages such as Haitian. She provides the schematic representation in figure 12.1 for relexification.

The primary innovation in the Lefebvre definition is that the new lexical entry can be a null form. A second claim in Lefebvre (1998) is that relexification may involve a change in the word order of the immediate environment of the relexified item. The definition given in Mous (2001) for *paralexification* elaborates on Lefebvre’s by suggesting that two phonological representations may become available for a single original lexical entry, one from each language in contact.

### 3.2 Relexification and L2 learning in creole genesis

Models for creole genesis frequently involved the idea that relexification was a special kind of L2 learning in unfavorable circumstances. Here I will explore
Original lexical entry
[phonology],
[semantic feature],
[syntactic feature],

Lexifier language
[phonetic string] used in specific semantic and pragmatic contexts

New lexical entry
[phonology] or [Ø]
[semantic feature],
[syntactic feature].

Figure 12.1 The relexification process (Lefebvre 1998, p. 16)

this possibility somewhat further. In earlier work (e.g., Muysken 1980) I systematically contrasted relexification and L2 learning as alternative contact strategies. The reason for the strict bifurcation between the two strategies was that in my fieldwork around Salcedo in the central Andes of Ecuador I had noted that the type of Spanish interlanguage spoken by incipient Quechua-Spanish bilinguals, migrant cargadores (load-bearers) in the urban center, differed considerably from the Media Lengua of the originally Quechua-speaking communities near the town. The differences are summarized in table 12.3. Presented in this way, the two contact strategies have completely different results. Relexification and L2 learning thus seem to constitute alternative routes to pidgin/creole genesis. The question now is whether the Media Lengua/interlanguage contrast in this extreme form should be generalized to other situations as well, and particularly whether creoles can plausibly be argued to resemble Media Lengua in having resulted from relexification and not from more straightforward L2 learning, as has been assumed by many other researchers. The answer is certainly not an unqualified yes, for a number of reasons.

Table 12.3 Schematic contrast between Media Lengua and Spanish interlanguage in central Ecuador

<table>
<thead>
<tr>
<th></th>
<th>Media Lengua (relexification)</th>
<th>Interlanguage (L2 learning)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure</strong></td>
<td>complex</td>
<td>highly simplified</td>
</tr>
<tr>
<td><strong>Degree of</strong></td>
<td>rigid</td>
<td>highly variable</td>
</tr>
<tr>
<td><strong>stabilization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Source</strong></td>
<td>Quechua morphosyntax and phonology with slight Spanish influence</td>
<td>Spanish morphosyntax and phonology with Quechua influence</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td>in-group language</td>
<td>interethic communication</td>
</tr>
</tbody>
</table>
First of all, other contact varieties in Ecuador must have resulted from a mixture of relexification and L2 learning, notably Catalangu. Examples from this variety are given in (3a)–(4a), with (3b)–(4b) representing the local Quechua equivalents, and (3c)–(4c) the Spanish equivalents (from Muysken 1996a, pp. 413–14; italicized forms in the Catalunga examples from Spanish, bold forms from Quechua, other forms cannot be directly attributed to either Quechua or Spanish):

(3) a. *a-kin-ta-pi* buska-*ri-ndu*?
   ACC-Who-ACC-EMPH seek-INC-GER
   ‘Who are you looking for?’

   b. *pi-ta-tak* mashka-*ri-ngi*?
   who-ACC-EMPH seek-INC-2s
   ‘Who are you looking for?’

   c. *a quién estás busca-ndo*
   ACC Who COP-2s seek-GER
   ‘Who are you looking for?’

(4) a. *ellos-kuna* Sigsihuacu-ABL-*manta* es
   3p.m-pl Sigsihuacu-ABL COP
   ‘They are from Sigsihuacu.’

   b. *pay-kuna* Sigsihuacu-ABL-*manta-mi*
   3-pl Sigsihuacu-ABL-AFF
   ‘They are from Sigsihuacu.’

   c. *ellos son* de Sigsihuacu
   3p.m COP-pl of Sigsihuacu
   ‘They are from Sigsihuacu.’

In the Catalangu examples (3a)–(4a) we find Quechua suffixes such as *-ta* ‘accusative’, *-ri* ‘inchoative’, *-kuna* ‘plural’, and *-manta* ‘plural’. In addition, however, there are Spanish grammatical elements such as *-ndu* ‘gerund’ and *es* ‘copula’. (Notice, incidentally, that the form used is singular, while the subject is plural; this could be because the copula is interpreted here as a reflex of the invariant Quechua affirmative validator *-mi.*) It is hard to say anything about the syntax; it looks mostly Quechua, but (3a) could also be Spanish interlanguage. If L2 learning and relexification were such radically different strategies, the existence of varieties like Catalangu, which combines the results of both, would be hard to explain.

Another issue is the fact that Media Lengua owes its particular structure (a radical disjunction between the roots, almost exclusively from Spanish, and the affixes and enclitics, almost exclusively from Quechua) in large part to the typological features of Quechua, with its highly agglutinative morphology, and Spanish, with its highly frequent vowel-final roots – compatible with those of Quechua, which are also overwhelmingly vowel-final. Quechua is rather exceptional in allowing free borrowing of Spanish verb stems, something we
only find either among highly isolating languages such as Bazar Malay or Chinese, or among radically agglutinative languages such as Quechua; even a textbook agglutinative language such as Turkish does not allow direct borrowing of verb roots, and most other language types have alternative verb incorporation strategies (Muysken 2000). Thus the split between the types of morpheme categories in Media Lengua may well be triggered by specific morphological properties of the pair Quechua/Spanish. A similar account is needed for the Quechua/Puquina mixed language Callahuaya (Muysken 1996b).

Not surprisingly, then, other cases of relexification show different patterns, i.e., there are different types of mixed languages. One example, Hottentot Dutch, is like Media Lengua (Den Besten 1987, p. 23; italics for Dutch elements, bold for Nama elements):

(5) *Heeltempaal-se natuur-a-xu bedorven-he* (Hottentot Dutch)
    *totally-ADV nature-CASE-POST rotten-PASS*
    Hoaraga-se =ûb-a-xu gau-he (Nama/Khoikhoi)
    Van nature helemaal bedorven. (Dutch)
    ‘totally rotten in nature’

However, the mixed language Michif, also claimed to have resulted from relexification, shows a noun phrase/verb phrase division (Bakker 1997, p. 45; italics for French elements, bold for Cree elements):

(6) *ki-nipi-yiwa son frère aspin kà-la-petite-fille-iwi-t*
    *PAST-die-OBV.SUB 3S.POSS.M brother since comp-the-little-girl-be-3s*
    ‘Her brother died when she was a young girl.’

Yet a third possible type of relexification is exhibited by languages such as Petjo (Van Rheeden 1994, p. 226), a mixture of Malay (bold) and Dutch (italics):

(7) *kleren njang di-wassen door di frou*
    *cloth-pl. REL pass-wash by the woman*
    ‘the clothes that are washed by that woman’

Here both languages contribute functional elements, in different proportions for each category. In table 12.4, an overview of this is given for one Petjo corpus. All these differences imply that relexification is a heterogeneous concept and that the Media Lengua case is not necessarily illustrative of relexification in general. Moreover, none of the Caribbean creoles looks like one of these intertwined languages, which we might expect if indeed relexification was at their origin: retention of functional categories from a substrate language is very rare (cf. Arends, Kouwenberg, and Smith 1995), unless we also include the retention of null functional categories, as is assumed by Lefebvre (1998). However, the theoretical status of null functional categories remains controversial.
A further problem is that at the time the original disjunction between relexification and L2 learning was proposed, L2 learning was assumed not to be characterized by transfer to any great extent. This has changed in recent years, with the work of researchers such as Ineke Van de Craats (Van de Craats, Corver, & Van Hout 2000, 2002) and Bonnie Schwartz (Schwartz & Sprouse 1996). With various caveats and nuances, these researchers claim that the grammatical skeletons erected by the projections from the functional categories of speakers' native languages, e.g., in the DP (nominal) and CP (clausal) systems, constitute the initial hypotheses that L2 learners make about the new target language. Thus, even if the functional categories in the resulting new language are not filled with morphemes from the original source language, they may be defined by the structural features of that source language, and only receive a superficial phonetic shape from the target. In short, they are relexified.

Furthermore, models of L2 vocabulary acquisition present a complex picture. When an L2 lexical form is acquired, part of its meaning is learned first, and only later on are other dimensions of meaning filled in. As Kroll and Tokowicz phrase it (2001, p. 49): “During early stages of acquisition, words in the second language, L2, may rely on their counterparts in the first language, L1, to mediate access to meaning.” Thus, relexification in its strict sense can be modeled as very initial L2 vocabulary learning without concomitant L2 syntactic learning. Treating relexification as incomplete L2 vocabulary learning has the advantage that it can be viewed as a differentiated process, in which the saliency and frequency of the vocabulary items in the L2 input can help
determine to what extent they are relexified. Malt and Sloman (2003) show that this even holds for words referring to fairly concrete concepts like ‘cup’.

A relexification account, in its strict form, commits one to the transfer of semantic organization features, lexical subcategorization, and selection features of individual items. Thus, any postulated substrate feature should be tied to specific lexical elements rather than to structural properties of classes of items or properties not closely linked to lexical items. For example, the Sranan serial verb poi ‘subsequent events turn out badly’ (< English spoil) in the relexification logic needs to be derived from a West African source – which has not been identified so far. An explanation where a general “serialization” construction or parameter has been transferred from a West African source would not be sufficient in a strict relexification account.

Related to this, the issue of how to model the differences between languages from a theoretical perspective also impinges directly on the relexification debate. The lexical learning hypothesis was proposed as one way to account for cross-linguistic variation. If all cross-linguistic variation is indeed fundamentally lexical (in an abstract sense) in nature, relexification can lead to structural substrate influence. If on the other hand, as in Construction Grammar, grammatical constructions have a place separate from the lexicon in accounting for differences between languages, looking for relexification to account for structural substrate effects may not be the right approach.

Obfuscating the issue again is the distinction of content words versus function words. In Muysken (1988) the claim was made that “real” or “pure” relexification, without accompanying semantic change, can only involve content words. Relexification of function words would automatically involve the target language, since function words necessarily depend, for their meaning definition, on L2-internal paradigmatic and syntagmatic relationships. If L2 shapes of function words were imported, it would be hard to escape the meaning of these items in the L2; otherwise there would be no way of accessing their meaning, needed for inter-lingual identification, at all. Whatever the logic of this argument, so far it has not been tested empirically in a rigorous way (cf. Muysken & Smith, in preparation), and indeed the available evidence may point exactly in the opposite direction.

Speaking more generally, the notion of relexification is linked closely to our view of the lexicon. Richer models of the lexicon immediately lead to richer models of relexification, as the combinatory possibilities of the different chunks of information that can come from different language sources increase componentially with the number of chunks. In principle, the following kinds of information can be distinguished in the lexical entry:

(8) Phonetic shape
Morphological structure
Conjugation class
Linear orientation (left/right headedness)
Subcategorization of arguments
Although it is clear that these different chunks of information are linked, different theorists differ as to the nature and strength of these links. Roughly speaking, a three-way division is often assumed:

(9) a. Phonetic shape
   Morphological structure
   Conjugation class

b. Linear orientation (left/right headedness)
   Syntactic subcategorization of arguments (object NP, to NP, etc.)

c. Semantic argument structure (Agent, Experiencer, Theme, etc.)
   Event structure
   Grammatical category
   Meaning

Potentially, either only the outer form (phonetic and morphological shape) of an item is affected (9a), or also its syntactic behaviour (9b). However, this is still a matter of debate. This is an area where creole studies and multilingualism research have much to contribute to our view of the lexicon.

Altogether, there is good reason to assume that relexification, viewed as a special type of L2 learning, was an important process in the genesis of many creole languages. However, L2 learning involves several other strategies in addition to transfer of L1 lexical semantic patterns. These other strategies can have been equally present in creole genesis, and may, in specific circumstances, have been more prominent than relexification.

3.3 Code-switching and code-mixing

At first sight there is very little relation between creole studies and the study of code-switching and code-mixing. I use the term "code-switching" here in the strict sense that clear switching between two distinct languages is meant, and "code-mixing" as a more inclusive term referring to utterances in which elements from several languages are combined. What is involved in code-mixing is generally maintenance of the grammars of at least one of the languages concerned (the "matrix language," cf. Myers-Scotton 1993) and the clear lexical presence of at least two languages. However, it is possible to imagine that frequent code-mixing was prevalent in the early plantation contact setting leading to creole genesis. When the languages involved have relatively sparse morphology and rather similar surface constituent orders, quite complex and
intimate code-mixing can be encountered. Examples from Sranan (bold)–Dutch (italics) code-mixing and of Moluccan Malay (bold)–Dutch (italics) code-mixing are given in (10) and (11), respectively:

(10) wan heri gedeele de ondro beheer fu gewapende machten
one whole part cor under control of armed forces
‘An entire part is under the control of the armed forces.’ (Bolle 1994, p. 75)

(11) aku nog steeds vinden akan raar kata koe bellen aku twee keer
1s still find it strange that 2s call 1s two time
zonder dat get gehoor without get hearing
‘I still find it strange that you called me twice without finding anyone home.’ (Huwaë 1992, p. 49)

At first sight, these examples look quite a bit like those given above of mixed languages such as Media Lengua. They differ from the mixed language examples in that the speakers who produced (10) and (11) are also capable of producing unmixed sentences in either of the languages involved and, given the right interlocutors outside of their peer network, will consistently do so. Thus (10) and (11) are instantaneous productions, whereas mixed languages are frozen language systems in their own right.

What the cases in (10) and (11) illustrate is that the functional elements are retained from the matrix language, even when the lexical elements are from the embedded language: the so-called system morpheme effect (Myers-Scotton 1993). In Myers-Scotton (2002) it is hypothesized that this asymmetry could also be responsible for the substrate-based structural features of creoles.

An intriguing source of information is the rigorous quantitative work on Wolof-French and Fongbe-French bilingual discourse by Poplack and Meechan (1995) on nominal structures and determiners, and by Meechan and Poplack (1995) on adjectives. In both cases the African languages provide a frame into which French elements are inserted. Following earlier work by Poplack and associates, Meechan and Poplack make a sharp distinction between code-switching and borrowing. (12) illustrates the latter. In Fongbe nominal structures many French nouns appear, and they are not accompanied by articles, unlike in French (Poplack & Meechan 1995, p. 204; Fongbe bold, French italics):

(12) et puis science xlé mí gbèdé dɔ tonnerre hù mé dòkpo
and then science shows us never that thunder kills person one
‘And science has never shown us that thunder killed one person.’

However, they can occur with Fongbe determiners and modifiers, and do so roughly at the same rates as native Fongbe nouns. Recall that Fongbe and French are two important languages in the genesis of Haitian (Singler 1996).
Here, code-mixing patterns which result from borrowing may tell us something relevant for creole genesis. Poplack and Meechan call "(nonce) borrowing" what others have termed "insertion under congruence" or "equivalence." If nonce borrowing – as in this account of French nouns in Fongbe – lies at the basis of the genesis of Haitian, we predict a similar distribution of determiners and modifiers in Haitian as in Fongbe. This still needs to be established quantitatively.

For adjectives, a different analysis is adopted, in terms of code-switching. While Fongbe has descriptive predicates (semantically equivalent to French predicative adjectives) that are used without a copula, French adjectives appear in Fongbe sentences with a semi-auxiliary \( \text{dò} \) (Meechan & Poplack 1995, p. 186):

\[
\begin{align*}
\text{cigar, alcohol, action } \text{yētōn dò passagèrē} \\
\text{‘Cigars, alcohol, their action is passing.’}
\end{align*}
\]

Their analysis is that "it seems inescapable that the Fongbe semiauxiliary \( \text{dò} \) is being specialized as a device for handling French-origin adjectives." Thus French adjectives are treated very differently from their notional equivalents in Fongbe. This can be compared with Haitian, where French-origin predicate adjectives do not take a copula and behave like stative verbs, as illustrated for \( \text{pwē} \) and \( \text{kōtā} \) (Hall 1953, p. 51, spelling as in original):

\[
\begin{align*}
\text{a. li pwē rivē} \\
\text{3s ready arrive} \\
\text{‘He was ready to arrive.’}
\end{align*}
\]

\[
\begin{align*}
\text{b. m-kōtā wè ou} \\
\text{1s-glad see 2s} \\
\text{‘I am glad to see you.’}
\end{align*}
\]

There are two ways of interpreting this contrast between Haitian and Fongbe code-mixing. One is that whatever happens in the type of code-mixing exemplified here has nothing to do with the process of relexification or intertwining supposedly involved in the genesis of Haitian. The other is that Haitian did not emerge via a route of relexification at all, but rather that there was transfer of a grammatical pattern that lead to (14).

Even if it is unsure yet what the exact relation is between creole genesis and code-mixing – if there is any at all – it is clear that a close comparison of contemporary Fongbe/French language contact has the potential to shed interesting light on the patterns in Haitian. Similar research is imaginable and possible for code-mixing involving other West African languages that played a role in the genesis of Caribbean creoles. Amuzu (2004) provides extensive data on Ewe–English code-switching, which could also be considered from the perspective of the potential light thrown on creole genesis.
3.4 Borrowing

3.4.1 Lexical borrowing

A well-established domain of contact research is the study of lexical borrowing. Just like other types of language contact, lexical borrowing tends to be strongly asymmetrical. A socially subordinate language borrows from a socially dominant language, whereas the reverse is much less frequent. Thus we find a great many borrowings from Spanish in Bolivian Quechua (Van Hout & Muysken 1994), but few borrowings from Quechua in the local Spanish, the latter typically found in specific semantic domains: local fauna and flora, local food, local textiles and clothing styles, rituals, and exclamations. Similar patterns recur in many other parts of the world. In creoles, there is evidence of considerable borrowing in the historical development of individual creoles; to name but one example, Papiamentu has borrowed extensively from Latin American Spanish, Dutch, and English since it emerged in the course of the seventeenth century. However, we can also model the genesis of the creole lexicon in terms of borrowing, in casu borrowing into an empty lexicon. The distribution of the European lexicon and the African lexicon in most creoles is reminiscent of the asymmetries we find in typical borrowing situations: African lexicon again pertains to lexical domains such as food, rituals, and exclamations, European lexicon to most other domains (Huttar 1985).

3.4.2 Stratal morphology

Another aspect of the borrowing process which ties in with the observations just presented, and which may well be of great significance for creole studies, is the existence of stratal phenomena in the morphological behavior of borrowed words (e.g., Aronoff 1976). It has often been noted that a latinate affix such as -tion in English can only be productively attached to latinate roots; hence reduction but not *breaktion. In the lexicon of various European languages certain classes of roots apparently remain tagged as [romance] or [latinate]. As far as known, this restriction does not hold in creoles, and particularly not in creoles with multiple lexical sources. Dijkhoff (1993) describes the situation in Papiamentu as follows: the Papiamentu nominalizer -shon (compare Spanish -ción) is limited to Spanish verbs, but not really productive, occurring mostly if not exclusively in words directly derived from Spanish or Portuguese. In contrast, the agentive suffix -dó (compare Spanish -dor) and the action nominal -mentu are not limited to Spanish verb roots. Thus we have with agentive -dó:

(15) fèrf-dó 'painter' (cf. Dutch verv-en 'to paint')
kap-dó 'cutter' (cf. Dutch kap-pen 'to cut')
las-dó 'welder' (cf. Dutch las-sen 'to weld,' also Papiamentu laser 'welder')
wèlder-dó 'welder' (Aruban variety of Papiamentu, cf. English welder, Papiamentu wielder 'to weld')
The productivity of -dó, then, is linked to the lack of stratal restrictions on its use. The absence of restrictions on the basis of lexical origin suggests that the creole lexicon is essentially open and flexible, and that we could conceptualize its formation as basically instantaneous, without the historical layers that led to the formation of lexical strata in the European languages. This is an idealization, of course. In fact, different languages contributed words at different times. Thus Ibero-Romance words in Papiamentu are much older than Dutch or certainly English words.

3.4.3 Deep borrowing and functional categories
A final remark concerning the conceptualization of the formation of the creole lexicon as massive lexical borrowing is that the relative scarcity of function words directly taken from the European lexifier languages could be viewed in terms of the relative difficulty of borrowing function words. Even though function words can be borrowed, this generally happens much less frequently and much later in the historical process of lexical influence than is the case with the borrowing of, for instance, nouns. In the following fragments of Bolivian Quechua a fairly radical case of function word borrowing is illustrated. In (16a) we have a diminutive -situ and a plural -s from Spanish, and in (16b) the emphatic negation marker ni (from Urioste 1964, p. 3; Spanish elements in italics):

(16) a. atoj-situ-s-kuna-qá
    fox-DIM-PL-PL-TOP
    ‘the little foxes’

b. Chay-manta-qá nínñá ní ima mikhu-na ka-jtí-n, ní
    that-ABL-TOP girl NEG what eat-NOM be-SD-3 NEG
    ropa ní ka-jté-n-qá, sastre-mán tukuy ima-tá
    clothes NEG be-SD-3-TOP tailor-ABL all what-ACC
    suá-rqa-mu-sqa.
    steal-INT-CIS-SD
    ‘Then when there was nothing to eat, and neither were there any clothes, the girl went to steal everything from the tailor.’

In Bolivian Quechua a wide array of functional elements can be borrowed from Spanish (Van Hout & Muysken 1994), but even here – perhaps surprisingly – certain categories, such as pronouns, are almost never borrowed.

3.5 Creoles and Sprachbund regions or linguistic areas
There has been considerable interest in recent years in the phenomenon of Sprachbund regions or linguistic areas. Recent examples are Aikhenvald and Dixon (2001) and Thomason (2001); earlier references include Campbell (1997a,
Table 12.5  Schematic contrast between creole settings and linguistic areas

<table>
<thead>
<tr>
<th></th>
<th>Creole and lexifier</th>
<th>Linguistic area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lexicon</td>
<td>shared</td>
<td>not shared</td>
</tr>
<tr>
<td>Morphosyntax</td>
<td>not shared</td>
<td>shared</td>
</tr>
</tbody>
</table>

1997b, 1998). Thomason defines a linguistic area as “a geographical region containing a group of three or more languages that share some structural features as a result of contact rather than as a result of accident or inheritance from a common ancestor” (2001, p. 99).

To some extent linguistic areas are the mirror image of creole settings. In the case of creoles, one could say that the creole language does not have the morphosyntactic features of the lexifier language that the inherited lexicon would lead one to expect. In linguistic areas, on the other hand, languages do not have the lexical relatedness that the shared morphosyntactic features would lead one to expect. Schematically this can be presented as in table 12.5. On a more concrete level, however, it is clear that the creole-speaking Caribbean – and probably the same holds for parts of the pidgin/creole-speaking Pacific – is a linguistic area by any definition one may wish to employ or by any scenario giving rise to a linguistic area one may imagine. There are a number of contributing factors:

(a) There are common African substrates in creole languages with different European lexifier languages.
(b) At least some Caribbean creoles (particularly the English-lexifier creoles) have a common origin in an antecedent pidgin or creole.
(c) There has been extensive movement of slaves from one plantation colony to another.
(d) There has been extensive subsequent contact in several cases, as evidenced by the borrowing of vocabulary between some creoles.
(e) In some cases there has been language shift from one creole to another.
(f) There are extensive common superstrate influences.

All these factors taken together have contributed to the morphosyntactic similarities between the Caribbean creoles, quite apart from shared circumstances of genesis.

4  Conclusion: Schuchardt’s Perspective on Language Contact

I want to end this fragmentary overview with a plea to return to the roots of language contact research, and particularly to the accomplishments of Hugo
Schuchardt. Not only did Schuchardt work on most of the topics mentioned here, including pidgin and creole genesis, linguistic borrowing, and code-switching, he also proposed formalisms to schematize some of his findings (Schuchardt 1890, pp. 177–80; Muysken 1999). Unfortunately, these formalisms were mostly limited to lexical structures. Central to Schuchardt’s approach is a pairing between L (Laut ‘sound’) and B (Bedeutung ‘meaning’) of items, and matches and mismatches of L and B between different languages. In addition, Schuchardt uses the notions identity ‘=’, similarity ‘~’, and difference ‘(‘. These elements are combined in formulas of the following kind, where the sounds and meanings of the Grundsprache ‘base language’ (l, b) and of the einwirkende Sprache ‘influencing language’ (L, B) are compared:

\[
\begin{align*}
\text{(17)} & \quad l & \equiv & \quad L \\
& \quad b & = & \quad B \\
& & & \quad L
\end{align*}
\]

The formula in (17) marks replacive borrowing, as when vinde (< English window) has replaced fenster ‘window’ in American Yiddish. The sounds of the base language and the influencing language are different, while the meanings are identical in this case. What wins out is the sound of the influencing language, vinde in the example given.

A more complicated example is:

\[
\begin{align*}
\text{(18)} & \quad l & = & \quad L \\
& \quad b & \sim & \quad B \\
& & & \quad [ \quad L^B (L^b) \quad ]
\end{align*}
\]

The formula is illustrated by Schuchardt with Portuguese lá, which resembles Malay emphatic lah in some of its uses, and is used frequently in Malay Portuguese, but, as the formula indicates, mostly with its original Malay meaning, albeit variable in its pronunciation.

Even though the formulas employed by Schuchardt entail a fairly simple view of the lexicon, they have the satisfying property of being able to cover a wide variety of phenomena. I hope to have shown in this essay that it is indeed profitable to look at creole languages from the wider perspective of language contact research, in the same way that Schuchardt did at the very beginning of our field, as a systematic domain of scholarly enterprise.

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