



## UvA-DARE (Digital Academic Repository)

### Perspectives on Creole Formation

Aboh, E.O.; DeGraff, M.

**DOI**

[10.1017/9781009105965.014](https://doi.org/10.1017/9781009105965.014)

**Publication date**

2022

**Document Version**

Final published version

**Published in**

The Cambridge Handbook of Language Contact. - Volume 2

**License**

Article 25fa Dutch Copyright Act (<https://www.openaccess.nl/en/in-the-netherlands/you-share-we-take-care>)

[Link to publication](#)

**Citation for published version (APA):**

Aboh, E. O., & DeGraff, M. (2022). Perspectives on Creole Formation. In S. S. Mufwene, & A. M. Escobar (Eds.), *The Cambridge Handbook of Language Contact. - Volume 2: Multilingualism in Population Structure* (pp. 257-282). (Cambridge handbooks in language and linguistics). Cambridge University Press. <https://doi.org/10.1017/9781009105965.014>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

# 10

## Perspectives on Creole Formation

Enoch O. Aboh & Michel DeGraff

### 1. Introduction

Creole languages are generally the outcomes of peculiar historical processes stemming from Europeans' imperialist forays in the rest of the world, including Africa, the Americas, Asia, and the Indian and Pacific Oceans. These languages are the linguistic side effects of global economies based on forced migration and labor – for instance, that of the enslaved Africans in European colonies in the Americas.

Because hypotheses about “Creole formation” and “Creole typology” are most controversial, Section 2 addresses terminological and methodological preliminaries. For expository purposes, we base our discussion on Creole languages in the Caribbean mainly, pointing to other Creoles when necessary. After a brief historical survey of early Creole studies, we revisit some of the initial definitions of “Creoles” and highlight the various biases that these definitions may have introduced into linguistics from the start.

In Section 3, we evaluate the hypotheses introduced in Section 2, with a focus on recurrent claims about a “Creole typology,” according to which Creoles can be considered “orphan languages” emerging from “abnormal transmission.” In these scenarios, Creoles are taken to result from a break in transmission and, thus, to dwell outside the family-tree model of language change (e.g., Taylor 1956, Thomason and Kaufman 1988, Bickerton 1981, 1984, 1988, 1990, 1996, 1999, 2008, McWhorter 1998, 2001, 2011, Bakker et al. 2011).

Section 4 briefly presents our Null Theory of Creole Formation (NTCF). This null theory does away with any *sui generis* stipulation that applies to all and only Creole languages. Instead, it is rooted in basic assumptions and

The names of the co-authors are listed in alphabetical order. This chapter is the outcome of ongoing and long-term collaboration. We bear equal responsibility for the strengths as well as shortcomings of the paper. A longer version of this chapter was published in a handbook of universal grammar edited by Ian Roberts (Aboh & DeGraff 2016).

findings about the human language capacity – assumptions and findings that apply to all languages (Mufwene 2001, DeGraff 2009, Aboh 2015, Aboh & DeGraff 2016).

Section 5 concludes the paper with some open-ended questions for future research on the place of Creole formation within larger patterns of language change with both children and adults engaged in language acquisition viewed as a (re)construction process that is constrained by Universal Grammar (UG) and that takes, as input, socio-historically contingent Primary Linguistic Data (PLD).

## 2. Terminological and Methodological Preliminaries from a Historical Perspective

Let us first clarify our objects of study and their label. In this chapter, we follow Mufwene (2000, 2008), among others, in his assumption that “creolization” should be taken as a socio-historical, and not a linguistic, concept. To keep the discussion manageable, our main focus in this chapter is on the Creole languages of the Caribbean (see DeGraff 2009). This well-circumscribed set of Creole languages will suffice to make the main point of this chapter since “we should not expect any specific sociohistorical or structural claim about any subset of languages known as ‘Creoles’ to be straightforwardly extrapolated to all other languages known as ‘Creole’ across time and across space” (DeGraff 2009: 894).

From its genesis onward, the term CREOLE in linguistics and related fields (e.g., ethnography, anthropology, literature, and cultural studies) and its diverse and often divergent uses have led to terminological and theoretical confusion. This confusion, we believe, partly results from the fact that the term *Creole*, from the Portuguese *crioulo* and Spanish *criollo* (from *criar* ‘to raise, to breed’ in Spanish and Portuguese), might have emerged in the sixteenth century with multiple uses – as a cover term for certain linguistic notions and as labels for (perceived) ethnic and botanical categories. Indeed, outside of languages, the term Creole applied to biological entities, namely human, flora, and fauna, that were “raised” in Africa and in the then-recently discovered “New World,” though their ancestors were from the “Old World.” This “New World,” though it may have seemed “new” in the self-serving perspective of the Europeans’ “discovery,” was, of course, not new to the indigenous Amerindians who inhabited it prior to Columbus’s arrival. But this Caribbean world did become substantially “new” after the European colonists, who brutally laid claim to it, eliminated, through disease and warfare, much of the Amerindian population there, and then brought in indentured workers from Europe and enslaved Africans as laborers to turn their “New World” colonies into settlements that produced immense wealth for Europe. These enslaved laborers brought with them diverse African languages, mostly

from the Niger-Congo family. The European settlers also spoke a variety of languages, even when they pledged allegiance to a single flag. It is in this milieu of conquest, global economy, multi-ethnicity, multilingualism, and European imperialism in Africa and the Americas, especially the Caribbean and the rest of Latin America, that the term *Creole* acquired much of its ethnographic significance (for extensive discussion, see Mufwene 1997, Chaudenson 2001, Palmié 2006, Stewart 2007, Lang 2007, P. Roberts 2008). It is also in this context of cultural and ethnic *brassage* that those new languages emerged that were labeled as *Creoles*. The uses of the label “Creole” have also included *ethnographic* factors, having to do with the fact that these languages were spoken by “Creole” people (i.e., people born in the colonies and with ancestors from elsewhere). It is important to stress that a similar *brassage* of populations was part of the genesis of Romance languages from Latin, or of Modern English from Old English then Middle English, and is part of the emergence of colonial varieties such as American varieties of English and American varieties of French (e.g., Missouri French and Cajun French). Cultural *brassage* as a factor in the emergence of new cultures and new linguistic varieties is thus part of human history. Accordingly, the fact that Creole languages emerged in such a cultural and linguistic *brassage* cannot be taken, per se, as a criterion to single out these languages apart from non-Creole languages.

In Africa and the Caribbean, the new language varieties were referred to as *Creole*, on a par with other (non-indigenous) locally grown colonial products (e.g., “Creole” cows and “Creole” rice) that were perceived as distinct from their counterparts in Europe or Africa. These new “Creole” varieties became associated with, often as an emblem of, the Creole people (i.e., those born in the colonies, with non-indigenous parents).

There is one basic ethnographic fact to highlight as we discuss the foundations of Creole studies: Creole people in the Caribbean were distinguished both from the indigenous inhabitants (i.e., Amerindians) and from the then relatively new arrivals from Europe and Africa. In the Caribbean, the term *Creole* subsequently evolved to encode various social biases related to racial, cultural, and linguistic hierarchies contrasting Europeans to non-Europeans, and contrasting different groups of non-Europeans such as the Creole Blacks (born in the colonies) and the African-born Blacks, with the latter called “bozal” and considered uncouth, uncultured, etc.

This Eurocentric racial/ethnic hierarchy is most clearly articulated in Moreau de Saint-Méry’s description of Saint-Domingue, where the author states that “for all tasks, it is the Creole slaves that are preferred; their worth is always a quarter more than that of the Africans” (Moreau de Saint-Méry 1797: 1.40). Moreau de Saint-Méry (1797: 1.39) further argues that Creole Blacks “are born with physical and moral qualities that truly give them the right to be superior over Blacks that have been brought from Africa”; “domesticity has embellished the [Black] species.” For Saint-Méry, like for many observers of his time and since then, the gold standards for

humanity, cultures, languages, and so forth are dictated by race-, ethnicity-, gender-, and class-based hierarchies – the same sort of hierarchies that motivated Europe’s *mission civilisatrice* in the “New World.”

Thus, from its very first ethnographic usage, the term *Creole* already had a (quasi) exceptionalist flavor attached to it: it singled out, as “exceptional,” a particular subset within the agents of contact that led to the emergence of Creole societies and their cultures (languages included) in the colonial settings. This exceptionalist flavor was carried along to the linguistic realm when the term was applied to the new speech varieties that, though emblematic of the recently created communities in Caribbean colonies, were erroneously assumed to be creations of the enslaved Africans only. Given that these enslaved Africans were generally, and also erroneously, assumed to be incapable of acquiring the colonial language (Pelleprat 1665), these speech varieties were eventually attributed structural or developmental characteristics that were perceived as *sui generis*. In the colonial era, the often explicit goal was to fit Creole languages into linguistic categories consistent with the race-related assumptions that prevailed during the Creole-formation period and that were also used to justify the enslavement of Africans on philosophical or “humanitarian” grounds, as part of Europe’s *mission civilisatrice*. Indeed the writings of Moreau de Saint-Méry and of many other scholars of his and later periods reflect a social hierarchy ordered by the respective worth of superior (read: European) vs. inferior (read *non-European*) languages. It is from such a normative Eurocentric perspective that Moreau de Saint-Méry and his contemporaries and intellectual descendants have mistakenly suggested that Creole languages, within this hierarchy, lie somewhere between the languages of civilization spoken by the European colonists and the allegedly primitive tongues spoken by enslaved Africans in the colony (see DeGraff 2005a for an overview).

By the nineteenth century, alongside the advent of Darwinism, some race-related slippage affected the semantics of the term *Creole*. This slippage can be seen in some of the debates, among philologists, about the formation of Creoles in Africa and the Caribbean. In some of these debates, one structural criterion for “Creoleness” was related to the Europeans’ assumption about the Africans’ cognitive (in)ability to acquire European languages. During the plantation phase in the colonial Caribbean, the numerically most important group of adults engaged in the acquisition of European languages was African. In a worldview where languages were used to measure the intellectual and moral advancement of nations and in a system of power/knowledge production where scholarship was funded through colonial mercantilist enterprises, the speech varieties associated with the enslaved Africans had to be ranked as radically inferior to those of the European colonists. Often this putative inferiority was explicitly theorized on a racial basis, according to which African minds were considered primitive and European minds advanced (see DeGraff 2001a, 2001b, 2005a, 2009, Aboh & DeGraff 2016 for overviews).

### 3. A Brief Review of Hypotheses about Creole Formation

Since the nineteenth century, there have been various theories about the genesis of Creole languages. We refer the interested reader to the following textbooks for discussion: Holm (2000), Siegel (2008), Velupillai (2015). In this brief review, we focus on theories that have influenced the debate on contact linguistics in recent history (i.e., superstrativism, substrativism, and universalism) and complete the discussion with recent claims about Creole formation in terms of conventionalized interlanguages. A common point between these theories is that Creole languages are taken to emerge as a result of language-acquisition failure in the context of intense language contact.

#### 3.1. Superstrate Inheritance as the Main Factor in Creole Genesis

A major proponent of the superstrate approach is Robert Chaudenson, a French linguist, who argued that socio-historical factors (i.e., the structure of the plantation, the size of the enslaved population, the vernaculars spoken on the plantation, and variations in demographic patterns from homestead to plantation societies) must be taken into account to understand the genesis of Creole languages. For instance, Chaudenson (2001: 448) suggests that Creoles with French ancestry result from “the unguided appropriation of approximate varieties of French koiné.” In his view, Creole languages emerged as imperfectly acquired varieties of European languages, hence the idea of “approximation of approximations.” This theory presupposes that, even though the corresponding Creoles may differ from the target European varieties (the so-called superstrate languages) in various respects, the former share fundamental similarities with the latter. According to Chaudenson, substrate influence is highly constrained and can only occur if the grammar of the target language allows it (i.e., the principle of congruence). In his view, creators of Creole languages only push to their logical extreme restructured patterns or reanalyses that were already present in regional French varieties. While this view is compatible with many structural aspects of French-based Creoles, it fails to account for clear instances of substrate influence (e.g., predicate cleft, verb serialization as traditionally defined), many of which have no obvious counterparts in regional French varieties (DeGraff 2001b, 2005a, 2007, Aboh 2015, Aboh & DeGraff 2016).

#### 3.2. Substrate Inheritance as the Main Factor in Creole Genesis

While the superstratist approach postulates that Creole languages are a continuation of the European target languages (the “superstrate” languages) as spoken by the colonizers, the substratist approach hypothesizes that they are a continuation of the grammars of the native languages of the enslaved Africans, which are labeled in the literature as the “substrate”

languages. These terms – “*superstrate*” and “*substrate*” – clearly mirror the colonial (im)balance of power between Europeans and Africans. According to the substrate hypothesis, though Creole languages are pronounced with words whose phonetic shapes are derived from their etyma in the European superstrate languages, their underlying grammars are virtually isomorphic to the native African languages. A main proponent of this theory is Claire Lefebvre who, reformulating Pieter Muysken’s (1981) Relexification Hypothesis in relation to *Media Lengua*, has argued that “the creators of a creole language, adult native speakers of the substratum languages, use the properties of their native lexicons, the parametric values and semantic interpretation rules of their native grammars in creating the creole” (Lefebvre 2006: 9).

Unlike Chaudenson’s superstratist approach, in which the distance between the target and the Creole languages is accounted for by successive restructuring stages prompted by the untutored learning of approximate French varieties, acquisition failure under Lefebvre’s relexification scenario derives from the relexifiers’ nearly exclusive reliance on their native languages. In contrast to Chaudenson’s superstratist approach, Lefebvre’s substratist view appears to account for obvious cases of substrate transfer, such as those listed above, but it cannot explain the strong similarities between Creole languages and their relevant lexifiers. It is such similarities that motivated the superstratist approach in the first place. Therefore, both the superstratist and substratist theories to creolization account for only limited subsets of the data, and cannot be argued to provide a comprehensive theory of Creole formation.

### 3.3. Bickerton’s Language Bioprogram

In addressing the limitations of the superstratist and substratist approaches, Derek Bickerton hypothesized that Creoles are the direct expression of children’s language capacity in a learning environment that does not provide any robust Primary Linguistic Data in L1 acquisition. According to this author, in a situation of L1 acquisition with inadequate input, say some *hypothetical* plantation society in which adults do not share a common language and speak a pidgin, “children with no prior language experience but with their native language capacity to guide them, will take that same input and make good any deficit between it and a natural language” (Bickerton 1988: 273).

This view is different from Chaudenson’s “unguided appropriation,” in which learning is constrained by the European vernaculars the enslaved Africans were exposed to, and Lefebvre’s substrate transfer view, in which learning is constrained by the African learners’ L1. For Bickerton (1984: 173), structural innovations in Creole grammars “are *inventions* on the part of the first generation of children who have a pidgin as their linguistic input, rather than features transmitted from pre-existing languages” (emphasis added).

This view therefore assumes a total break in transmission, as the outcome of a linguistic chaos in which the child must resort to unmarked values of the Language Bioprogram, which are thus spelled out with selected morphemes from the Pidgin, which in turn would have borrowed these morphemes from languages spoken on the plantation. Under this view, postulated surface similarities among Creole languages (e.g., word order, Tense-Mood-Aspect ordering, verb series, specific vs. non-specific opposition) are taken to be strong evidence that all Creoles emerge through a universal process of language creation by L1 acquirers who are exposed to Pidgin utterances. Pidgins, however, do not provide L1 learners with appropriate Primary Linguistic Data. In Bickerton's scenario, first language acquisition during creolization is a creation process exclusively guided by the Language Bioprogram, in absence of Primary Linguistic Data that would move the child's emerging grammar away from the innate values specified by the Bioprogram.

Though Bickerton's hypothesis has attracted a lot of attention within the generative framework and in studies on the evolution of language, it fails to account for these very data that can be partly explained by the superstratist and substratist approaches discussed above. In other words, it fails to account for the documented lexical and grammatical inheritance from both the European lexifiers and the native languages of the enslaved Africans (e.g., Kwa and Bantu). In addition, the Language Bioprogram cannot explain the well-documented structural variations across Creole languages. There have been several critiques of Bickerton's theory of creolization and the Creole typology that it suggests. We will not discuss these issues here; the interested reader is referred to Muysken & Smith (1986), DeGraff (1999b, 2005a, 2005b), Mufwene (2001), Aboh (2009, 2015), and references therein for discussion.

### **3.4. Creole Languages as Conventionalized Interlanguages of an Early Stage**

Dating back to Pelleprat (1655), this view has recently been revived by Ingo Plag in a series of columns in the *Journal of Creole and Pidgin Languages* (2008a, 2008b, 2009). In this hypothesis, Creoles seem to stand out as languages that are the outcome of adult learner's interlanguages in arrested development, with Creole creators by and large remaining stuck in some early stage of L2 acquisition: between stage 2 and stage 3 in a sequence of five stages from 1 to 5. According to Plag, the Creole features that justify this early-interlanguage hypothesis are: lack of inflectional morphology; Verb-Object and Object-Verb patterns that are assumed to be common to L2 learners at an early stage; initial wh-phrases without auxiliary inversion and/or sentence-final yes-no question particles; and preverbal negative markers assumed to be universal in L2 acquisition, though some slightly advanced learners may allow transfer from their L1.

However, this cluster of properties has hardly any unified basis in morphosyntactic theory or in language-acquisition research. For instance, it



seems misguided to assume that initial wh-questions in Creole are the result of simple base-generation, since question formation in these languages belongs to a class of phenomena including focus, topic constructions, and relative clauses that correspond to the most advanced stage in the author's theory (i.e., stage 5). Likewise, Plag's framework seems to lack any documented socio-historical support.

In light of early Creole texts and given what we have learned from colonial Caribbean history, it can be demonstrated that Creole languages emerged from the interaction between learners of different profiles, including monolinguals and multilinguals – the latter with various degrees of fluency in the colonial superstrate language, in the African substrate languages spoken on the plantation, and in the nascent Creole language. A detailed critique of Plag's theory can be found in DeGraff (2009: 948–58) and Aboh (2015: 91–110). We refer the reader to these studies and references cited there.

One corollary of some of the theories of creolization discussed in this section is the claim that Creole languages form a typological class that, by virtue of the languages' ancestry in either Pidgins or early interlanguages in L2 acquisition, also represents the structurally simplest languages of the world. The following section problematizes this claim.

#### 4. Methodological Issues with "Simplicity" and "Creole Typology" Claims

The Creole Simplicity Hypothesis is related to the widespread belief that Creoles evolved from Pidgins, that is, lingua francas with greatly reduced grammatical structure, or from some default grammar as specified by the Language Bioprogram. Due to their postulated Pidgin ancestors and to their young age, Creoles are considered to have not existed long enough to mature and to develop the type of "unnecessary" opaque morphological and syntactic structures that are assumed to exist in older languages and that are thought to correlate with grammatical complexity. To the best of our knowledge, there is no sociohistorical evidence of any such pre-Creole Pidgin in the colonial Caribbean. This empirical gap is even admitted by proponents of Creole simplicity as well. Bakker (2003: 24), for instance, acknowledges that "[t]here are no cases where we have adequate documentation of a (non-extended) pidgin and a creole in the same area"; see also McWhorter (2011: 30, 31, 70). Proponents of the Pidgin-to-Creole Hypothesis maintain, however, that this hypothesis is supported by the *linguistic* facts. What are these linguistic facts?

McWhorter (2011: 31–9) proposes four telltale signs for Creoles' hypothetical Pidgin ancestry: (i) generalization of the infinitive; (ii) absence of copula; (iii) no case distinctions among pronouns; (iv) preverbal placement of the clausal negation marker. It is important to note that these telltale

signs make sense only if one considers the Creole from the perspective of its lexifier. With regard to the Creoles of the Caribbean, for instance, many substrate languages (e.g., the Kwa family) (i) make no morphological distinction between the infinitive and finite forms of the verbs, (ii) involve no copula of the type manifested in the lexifier, (iii) display no case distinction among pronouns, and (iv) allow preverbal placement of clausal negation. It is therefore obvious that these four telltales for alleged Pidgin ancestry are unreliable since they might as well be reflexes of *substrate* influence from the Kwa languages.

Now, if we were to compare these telltales to relevant patterns in the lexifier, the following questions and problems emerge: What are the morphosyntactic criteria for a “copula”? If we define “infinitive” as the least inflected form of the verb, and “copula” as an overt linking morpheme between subject and certain non-verbal predicates, Vietnamese as described in Dryer & Haspelmath (2011) would qualify as a quasi-Creole, notwithstanding its long history. How do we determine synchronically whether an “infinitive” has been “generalized”? With regard to French-lexifier Creoles for instance, is such generalization of the infinitive qualitatively different from the patterns observed, for instance, by Frei (1929) and Gougenheim (1929), where spoken varieties of French show a strong tendency toward invariant verbal forms? In addition, one must note that in these spoken varieties of French, which is of the very sort that seeded the formation of Creoles with French lexifiers, there is a recurrent phonological similarity between the past participle and the infinitival forms. Such similarity, which is not related to any Pidgin ancestry, did play a role in the formation of the verbal morphosyntax of French-lexifier Creoles (see, e.g., DeGraff 2005b for one case study).

Even more problematic is the fact that the postulated criteria in (i)–(iv) are disconfirmed by data from Pidgins that have been documented outside the Caribbean (see, e.g., Bakker 2003, Thomason 1997). For example, Kenya Pidgin Swahili, Pidgin Ojibwe, Taymir Pidgin Russian, and Fanakalo show tense inflectional morphology on verbs, while Pidgin Ojibwe, Central Hiri Motu Pidgin, Arafundi-Enga Pidgin, and Lingala have morphological subject agreement and tense suffixes (Mufwene 1989, Bakker 2003: 20–1). The Creoles of the Caribbean, having emerged from languages that are often at the low end of the cline of inflectional richness, are unsurprisingly at the low end of that cline as well (Aboh & Ansaldo 2007) – and with even fewer inflectional affixes than their source languages, given the well-documented eroding effect of second language acquisition on inflectional paradigms.

Be that as it may, the general cross-Pidgin typology contemplated by McWhorter has no empirical basis in the history of Caribbean Creoles. There appears to be no linguistic evidence either. Consider, say, McWhorter’s (2011) claims for lack of case distinctions in Creoles. We have documentation of eighteenth-century Creole varieties in Haiti that show robust case distinctions in pronouns such as nominative 1SG *mo* vs.

accusative 1SG *moé*, and nominative 2SG *to* vs. accusative 2SG *toué*. Here are two examples from Ducœurjoly (1802, Vol 1: 353) with the French translations given there: HC: *To va bay moué nouvelles* / French: *Tu m'en diras des nouvelles* 'You(+SG) will give me news about it' vs. HC: *Mo te byen di toué* / Fr: *Je te l'avais bien dit* 'I had told you well'. Such case distinctions in early Haitian Creole (HC) are also reported in Anonymous (1811), Sylvain (1936: 62–3), and Goodman (1964: 34–6). The latter shows that similar case distinctions also apply to other French-based Creoles such as Louisiana Creole and Mauritian Creole. These morphological distinctions have now disappeared in contemporary HC, thus suggesting that Creole varieties closer to French (so-called acrolectal varieties) must have been more prevalent in the earlier stages of Creole formation, but were later replaced by varieties structurally more divergent from French (so-called basilectal varieties). Chaudenson (2001) characterizes the divergence as *basilectalization*. This is consistent with observations about the history of other Caribbean Creoles as in Jamaica (Lalla & D'Costa 1989) and Guyana (Bickerton 1996, contrary to his 1973 decreolization hypothesis). Such observations belie the claim that “decreolization” (i.e., French influence via diglossia) is the reason why HC would now diverge from McWhorter's Creole prototype. If anything, the earliest varieties of HC were even further away from said Creole prototype, providing an even stronger refutation of such prototype. In any case, the argument whereby contact between a Creole language and its lexifier would be a factor exempting certain Creoles from the predictive scope of a Creole Prototype seems a fundamental contradiction, considering that such contact, at least in the well-documented cases of Caribbean Creoles, would have been most intense at the onset of Creole formation. Furthermore, it might appear strange, indeed, that the very phenomenon triggering Creole formation (i.e., language contact) is the very same phenomenon that is now assumed to trigger the un-doing of so-called Creole features.

Saramaccan is another “radical” Creole, actually the most radical Creole according to Bickerton (1984: 179) and a “prototypical” one according to McWhorter (1998). Yet it too manifests some case distinction. In this instance, we have a nominative vs. accusative opposition in the 3rd person singular: *a* '3SG nominative' vs. *en* '3SG accusative' (Bickerton 1984: 180, Aboh 2006a: 5). This contrast too is contrary to expectations based on McWhorter's Pidgin-to-Creole criteria. In a related vein, Creoles with verbal paradigms that go beyond “a generalization of the infinitive” are documented in Holm (2008) and Luís (2008) with data from Portuguese Creoles that manifest inflectional verbal suffixes.

Once Creoles are analyzed holistically, taking into account much more than the four isolated patterns arbitrarily chosen by McWhorter, it becomes doubtful that there ever was a structureless Pidgin in their history – especially one so reduced that it would have massively blocked the transmission of features from the languages in contact into the emergent Creole. Because the so-called Pidgins are human creations, we expect them

to display structural properties that are made available by Universal Grammar (UG) even if these properties may seem rare cross-linguistically. In this regard, the available literature on Pidgins provides a list of seemingly “exotic” features – “exotic” to the extent that they are lacking in many an “old” language but attested in a number of Pidgins. These features include: evidential markers in Chinese Pidgin Russian; noun-class markers in Fanagalo, Kitúba, and Lingala; tense suffixes in Kitúba and Lingala; gender marking and agreement in the Mediterranean Lingua Franca; Object-Subject-Verb and Subject-Object-Verb word orders in Ndjuka Trio Pidgin; lexically and morphosyntactically contrasting tones in Nubi Arabic and Lingala; etc. (see DeGraff 2001b:250–1 for references).

As Pidgins are second languages for the majority of their speakers, they are susceptible to structural transfers from their speakers’ native languages. In effect, such an observation entails that there is, a priori, no such thing as an essential “Pidgin” or “Creole” type of language: the structural profile of each Pidgin will, to some degree, reflect the contingent ecology of its formation, including the structures of the respective languages in contact.

One corollary of these observations is that, be it called a “Pidgin” or “Creole” or “normal” outcome of language change, the eventual result of language acquisition in the context of language contact carries along various properties from the languages in contact (Müller 1998, Hulk & Müller 2000, Müller & Hulk 2001, Notley, van der Linden, & Hulk 2007, Mufwene 2008: 149–53, and references cited therein). What specific properties are transferred to the new variety depends on a variety of factors: socio-historical such as population structure and dynamics; linguistic-structural such as typological variation and markedness among the languages in contact; and psycholinguistic such as saliency and transparency of available features. Given that the languages in contact are usually assumed to be “old” languages, the outcome of language contact will inherit various features from these, and this is exactly what we see in comprehensive surveys of language-contact phenomena, such as those cited in DeGraff (2001b: 250–9). Such instances of feature transfer can thus induce various increments of *local* (but not necessarily global) complexity in the outcome of language contact (see Aboh & DeGraff 2016, Blasi Michaelis & Haspelmath 2017, and references therein for further discussion).

These ongoing observations about the relationship between linguistic ecology and structural complexity suggest how important it is to bear in mind the effect of sampling biases on Creole-simplicity claims. This sampling problem, already noted by Thomason & Kaufman (1988: 154), Bakker (2003: 26), Mufwene (2008: 143–53), and Kouwenberg (2010), especially affects those claims that try to isolate Creole languages into one small corner of linguistic typology with grammars that fit a narrowly defined uniform structural template, which in turn is placed at the bottom of some arbitrarily defined hierarchy of complexity (as in McWhorter 2001, 2011, Parkvall 2008, Bakker et al. 2011).

More concretely, let us consider the basic data and method in Parkvall (2008), which consists of the database of 155 languages documented in the *World atlas of language structures* (WALS, Dryer & Haspelmath 2005) and 34 Pidgins and Creoles – 2 from WALS and 32 of Parkvall's own choosing, with 18 of the latter 32 from Holm & Patrick's (2007) *Comparative creole syntax: Parallel outlines of 18 creole grammars* (CCS). The data samples in Parkvall (2008) make room for a variety of confounding factors. Most of the Creoles in this study are historically related to: (i) typologically similar European lexifiers (typically Germanic or Romance) with relatively little affixal morphology and with few features that are cross-linguistically rare and (ii) African substrates (mostly Niger-Congo) that fall in narrow bands of typological variation as well, as noted in, e.g., Alleyne (1980: 146–80), Thomason & Kaufman (1988: 154), Bakker (2003: 26), Mufwene (2008: 136–53), and Holm (2008: 319–20). This particular selection of Creole languages constitutes an extremely biased sample. Contrasting such a sample with the much larger set of non-Creole languages in WALS, languages that come from much more diverse stocks, both genetically and typologically, makes for a tendentious comparison (Kouwenberg 2010).

A complexity metric that is based on such a small and arbitrary set of morphosyntactic distinctions, forms, and constructions can only impose a biased artificial ranking. As often noted (e.g., in Alleyne 1980), the languages in contact during the formation of these Creole languages are in the set-union of Germanic, Romance, and Niger-Congo and have relatively similar profiles – within a relatively small window of typological variation (see also Chaudenson 2001). Given such major overlaps across sets of ancestor languages plus the well-known effect of second language acquisition on phonological and morphosyntactic paradigms (Bunsen 1854, Meillet 1958: 76–101, Weinreich 1958), it is thus not surprising that the Creole sample in Parkvall (2008) shows the similarities and the ranking that it does, owing to the particular “bits” in his complexity metrics.

## 5. Computational Phylogenetics in Creole Studies

Bakker et al. (2011) claim that “Creoles are typologically distinct from non-creoles.” In trying to buttress their claim, these authors use the sort of computational phylogenetic algorithms described in Dunn et al. (2008). However, their application of these algorithms is riddled with empirical and conceptual problems, as discussed in Fon Sing & Leoue (2012), DeGraff, Berwick, & Bass (forthcoming), Aboh (2016), Fon Sing (2017), and Kouwenberg & Singler (2020).

All these studies mention circular logic and data problems in Bakker et al.'s (2011) analyses: (i) a relatively small sample of morphosyntactic features in narrow domains of grammar are identified as *absent* in a set of Creole languages, then these features serve to establish a “Creole Typology”; (ii) the

description of the corresponding data is often inadequate. In what follows we briefly discuss these two sorts of problems, but the interested reader is referred to the references cited above for much more detailed discussions.

Bakker et al. (2011) use computational methods in trying to establish historical and structural relatedness among Creole languages. Though Bakker et al. rely on Dunn et al.'s framework, they misapply it.

Firstly, Dunn et al.'s study of the isolate Papuan languages in Island Melanesia gives clear methodological priority to the classic Comparative Method with its vocabulary-based sound–meaning correspondences. Dunn et al. recommend the Comparative Method as a reliable tool (a “Gold Standard”) whenever cognate sets can be established within a limited time depth (approximately 10,000 years according to Dunn et al. 2008: 710–12; cf. Wichmann & Saunders 2007: 378).

One major issue with Bakker et al.'s application of structure-based methods to Creoles is that these languages emerged over the past four to five centuries at the most, if we consider Capeverdean Creole as one of the earliest Creoles, with a date of emergence in the fifteenth/sixteenth century (Lang et al. 2006). In other words, the maximal time depth of Creole formation is much less than the 10,000-year time depth within which the Comparative Method can be considered applicable.

In any case, the outcome of Bakker et al.'s phylogenetic computations is a direct result of the features selected for the comparison. Of course, some finite choice of features has to be made when comparing languages. Moreover, for most languages, the relevant sets of features are not exhausted by available reference grammars. But the key question here is how to ensure that the initial choice of features be bias-free and do not undermine the results of the comparison. We thus need to ask: On what theoretical basis are (relatively) small sets of features selected from specific domains of grammar? How does one ensure that certain domains (e.g., isolated areas of phonology and morphosyntax) are not assigned higher priority than other domains (e.g., the lexicon or various areas of syntax, semantics, and discourse)? The point is that, given the availability, in principle, of a vast range of structural features to compare between any two languages, the choice of any relatively small set of features must be theoretically motivated and immune from the sort of biases that may turn the comparison into a self-fulfilling prophecy: “[t]he choice of characters for use in a phylogenetic analysis is of great importance, and has often been one of the main issues involved in critiquing a phylogenetic analysis: which characters did the authors use, and what are the consequences of that choice?” (Nichols & Warnow 2008: 769). In this regard, Nichols & Warnow (2008: 769) conclude that “data selection (both of characters and languages) and the encoding of the character data have the potential to significantly impact the resultant phylogenetic estimation.”

Likewise, Dunn et al. (2008) enlist a number of strategies to ensure an adequate comparison, all of which Bakker et al. ignored. For instance,

Bakker et al. use features from two previous publications: Holm & Patrick's (2007) *Comparative Creole Syntax (CCS)* and Parkvall's (2008) aforementioned study on Creole simplicity. Yet one major problem here is that the 97 features taken from *CCS* and in Parkvall 2008 are interdependent, even redundant. This interdependency issue is, at least, acknowledged by Holm (2007: xi). Furthermore, Bakker et al. use only 43 features from limited areas of grammar in order to compare some 200 languages, while Dunn et al.'s study involves 115 features for 22 Papuan languages (i.e., Dunn et al. enlist more than twice as many features, for comparing nine times fewer languages, than in Bakker et al.'s study). Like the features taken from *CCS*, the features from Parkvall (2008) violate the ban against interdependency. Moreover, these features are taken from narrow and superficial areas of morphosyntax – mostly having to do with overt morphology, as noted by Aboh (2009), Kouwenberg (2010), and Aboh & DeGraff (2016).

Given these serious methodological drawbacks, it is not surprising that the results of Bakker et al. are, at best, empirically and theoretically fragile and, at worst, simply tendentious, as already pointed out by Fon Sing & Leoue (2012), Fon Sing (2017), Kouwenberg and Singler (2020), and DeGraff, Berwick & Bass (forthcoming). In a recent short note, Aboh (2016) shows that 34 percent of the features assigned to Yoruba were plainly wrong or misanalyzed. For Ewegbe, the error rate rises, up to 39 percent.

Confronted with these facts, Bakker (2016: 424) simply concludes: "Some error rate is unavoidable when you work with more than ten thousand data points," failing to notice that some of these "errors" are based on methodological flaws. In effect, Bakker et al. (2011) and Bakker (2016) have neglected the very methodological recommendations by Dunn et al. (2008) and Nichols & Warnow (2008) that would have helped them avoid the errors that Bakker now calls "unavoidable."

One sees the same methodological flaws and related neglect in Bakker's most recent studies. In reacting to Aboh (2016), Bakker reports on new results from his research group. They conducted yet another phylogenetic comparison between 23 Atlantic Creoles, their 6 European lexifiers, and 60 African languages. By comparing the African languages to the Creoles based on a predefined set of features, Bakker and his colleagues found that the two language groups fall in two different clusters. But, unsurprisingly, the clustering changes when one changes the set of features. As Bakker (2016: 423) concludes, "one can track influence from coastal African languages when *other features are selected*" (emphasis added). Such "tracking" by "other features" suggests, again, how the outcome of any such comparison depends on the actual choice of features. In other words, the method suffers from cherry picking its comparanda, which incorporate, at the onset, the narrow set of superficial features that will help confirm the authors' self-fulfilling prophecy about a "Creole Typology."

Another example of this study's inconsistency is the fact that, after adding 22 unrelated Creoles and comparing them to Niger-Congo languages

and the Creoles' lexifiers, "all six Western European languages end up in the middle of the creole cluster" (Bakker 2016: 423). Rather than taking such an inconsistent set of clusterings as symptomatic of flaws in the design of his phylogenetic method, Bakker simply concludes: "These results were totally against my expectation, I admit!" (p. 423).

We take these facts to illustrate the sort of shortcomings that can be avoided by paying more attention to the recommendations in Dunn et al. (2008), Nichols (2006), and Nichols & Warnow (2008). Bakker et al.'s (2011) claims become even more worrisome when it is discovered that their empirical generalizations are: (i) logically contradictory – for example, certain languages are classified as having "double marking for direct object" and *no* "marking for direct object" (152 out of 188 languages have similarly inconsistent pairs of features); (ii) in contradiction with one another across publications by overlapping sets of authors – for example, in Bakker et al. (2011) it is claimed that *no* Creole has indefinite article, but in a later study, namely Daval-Markussen & Bakker 2012, *all* Creoles are classified as having an indefinite article synonymous with *one*; (iii) in contradiction with well-known facts from both Creole and non-Creole languages, even facts that are documented in other publications by the same authors of Bakker et al. (2011) – for example, they classify only two Creoles (Kinubi and Fanakalo) as having reduplication, yet it is a well-known fact that Creoles do have productive reduplication, a fact that's even documented in Bakker & Parkvall 2005 and Plag 2009, though the same Bakker, Parkvall, and Plag have also contributed to Bakker et al. (2011), where reduplication goes missing as a trait among Creole languages; (iv) in contradiction with some of the references in Bakker et al. (2011), including *WALS* – for example, they classify English, French, German, and Spanish as having productive reduplication, yet *WALS* classifies these languages as *lacking* productive reduplication. (See DeGraff, Berwick & Bass forthcoming for more details.)

In a recent study, Blasi, Blasi & Haspelmath (2017) analyze 48 Creole languages and 111 typologically and genetically different non-Creole languages and conclude that many aspects of the Creoles can be traced back to their source languages, while other aspects can be accounted for based on common hypotheses about L2 acquisition. According to these authors, there is ordinary (i.e., non-exceptional) language transmission even in the context of Creole languages. Such results directly contradict the claims in Bakker et al. (2011).

## 6. The Rationale from the Perspective of Language Acquisition and Change

Over the past few decades, Salikoko Mufwene has argued convincingly that no exceptional theory of language creation is needed to account for Creole formation. In other words, Creole formation need not be studied as if it were a *sui generis* diachronic phenomenon totally distinct from the



evolution of non-Creole languages. Instead, Creole studies should be informed by, and inform, these models of language acquisition that offer insights as to how learners develop mental grammars from the always heterogeneous inputs that they receive – keeping in mind that the Primary Linguistic Data that learners use in developing their individual grammars are necessarily the output of idiolects that, to various degrees, are pairwise distinct.

Abstracting away from theory-specific technical details of implementation, we generally adopt the basic socio-historical assumptions and structural implications of Mufwene's (2001) competition-and-selection model. In the latter, learners in language-contact situations engage in both of these two (related) processes: (i) they "recreate" certain parts of the grammars of the language(s) whose output (i.e., utterances) they are exposed to; (ii) they *innovate* the grammars of their emerging languages based, inter alia, on (competing) patterns in the utterances from the languages in contact. In a multilingual community such as the Caribbean plantation societies of the seventeenth century, it is expected that learners will develop slightly different grammars depending on their socio-economic and demographic circumstances. Each such grammar would show a certain degree of distance from the target grammars that the learners had (indirect) access to. This approach crucially assumes the theoretical Chomskian I- vs. E-language distinction. In DeGraff (1999a), this distinction is couched in terms of an "I-Creole" (i.e., the *mental* grammar of the individual learner engaged in Creole formation) and an "E-Creole" (i.e., an abstraction about the utterances in, and the emerging norms among, the Creole speech community).

According to Mufwene (2001), language change, that is, a slow shift from one set of communal norms (be it in a plantation society or not) to a new set of norms, results from a process of competition and selection among alternatives in a feature pool. This general view of language change applies to all situations of language acquisition in which learners must negotiate among different linguistic choices.

If we focus on the particular case of Haiti, it is now well established that HC is a relatively focused language, notwithstanding the dialectal differences across geographical areas (Fattier 1998). Yet, given the early history of HC, it is expected that the first proto-Creole varieties in colonial Haiti (known as "Saint-Domingue") would have manifested the structural influences of a variety of Niger-Congo substrate languages alongside the influences from the superstrate varieties of French. What would have prevailed in the earliest stages of HC is a set of structurally distinct proto-HC varieties, each showing primary influence from a specific set of substrate and superstrate speech patterns, depending on the ethnic composition and the social structure of the corresponding area (i.e., who and how many spoke what to whom, where, and when?). One fact that is revealed in Fattier's (1998) detailed dialect atlas for Haitian Creole is that, despite class- and region-based variations, HC is relatively focused, especially when we consider its

morphosyntax, which is rather uniform across dialects in spite of the documented cross-dialectal differences. What is striking is that the documented differences across dialects seem largely orthogonal to, say, the inter-substrate differences that would have prevailed at the earliest stages of HC formation. The same holds when we consider the structural differences that would have prevailed among the French and other Romance varieties (the so-called “patois”) that were spoken in colonial Saint-Domingue. In other words, in Haiti today one would be hard pressed to identify, say, a Gbe-influenced HC dialect vs. a Bantu-influenced vs. an Oil-influenced vs. a Provençal-influenced HC dialect. What we do find, among other things, are Gbe-influenced patterns (e.g., postnominal determiners, predicate cleft, serial verb constructions), Bantu-influenced patterns (e.g., morphemes with Congo cognates), and seventeenth-century French patterns (e.g., periphrastic verbal constructions, regional French vocabulary items) in *all* dialects of HC.

In light of these observations, it thus appears that L2 acquisition did play a key role in Creole formation, with both the native languages of the L2 learners and general strategy of L2 acquisition influencing the shapes of their respective interlanguages and the ultimate outcome of Creole formation. Our hunch is that L2 acquisition plays a similar role in other instances of language change, as in the history of English (see Kroch 1989, Kroch, Taylor, & Ringe 2000). L1 acquisition would have also played a key role in Creole formation, as it does in other instances of language change: the Caribbean-born (i.e., the Creole) children would have, by and large, created relatively stable I-languages such that any prior substrate-influenced cross-dialectal differences would have been leveled off through successive L1 acquisition by larger and larger groups of Creole children, which would have, in effect, acted as “agents of selection” in Mufwene’s (2010) terms. These Creole children, no matter the languages spoken by their parents, would have created their own Creole I-languages (“I-Creoles” in the terminology introduced in DeGraff 1999a: 8–9). The emergence of these I-Creoles in the minds of these early Creole (i.e., Caribbean-born) speakers was conditioned by Primary Linguistic Data (PLD) containing proto-Creole patterns influenced by a diverse set of substrate and superstrate languages and by mutual accommodation across the boundaries of these diverse ancestral languages. These languages were the vernaculars (i.e., the primary means of communication) of the older non-Creole generations – be they speakers of Niger-Congo languages or speakers of French(-derived) varieties, including proto-HC varieties. It is through successive L1 acquisition instances by Creole children that patterns influenced by specific substrate and superstrate languages would have spread throughout the population at large. And it is also through such L1 acquisition that the proto-Creole varieties would acquire stable norms as natively spoken varieties by larger and larger groups of native speakers – Creole speakers with increasing socio-political influence. Thus arises the “L2 acquisition–L1 acquisition cascade” in Creole formation (cf. DeGraff 1999b: 497, 2002: 391–94, 2009: 944–7).

Similar homogenization processes (or “normalization” in the terminology of Chaudenson 2001 and Mufwene 2001) have been documented in real time by Newport (1999) and Kegl, Senghas, & Coppola (1999). These two studies convincingly show the capacity of children to regularize certain patterns in their PLD. A caveat is in order: We do not consider these two studies to be replicas of Creole-formation scenarios, and we do not commit ourselves to the structural details and analyses in these studies. More specifically, the socio-historical circumstances in Newport and Kegl et al.’s Sign Language studies differ greatly from what obtained in the case of Caribbean Creole formation. Likewise, the natures of the inputs and outputs in the Sign-Language and Creole cases are also different in some crucial aspects – partly due to differences in modalities (spoken vs. signed). But what these studies help us evaluate is the role of children vs. adults when exposed to language input that seems unstable and non-native to varying degrees. (See DeGraff 1999b: 483–7 for related caveats and Mufwene 2008: chapter 5 for implications vis-à-vis the emergence of communal norms at the population level.) Indeed, Newport and Kegl et al. focus on learners of Sign Languages who are creating their L1s from PLD that are nonfluent and unstable. Such PLD do not provide evidence of certain combinations – in, for example, the morpho-syntax for Tense-Mood-Aspect marking. Furthermore, the PLD patterns show inconsistent variability. What the children in these studies did is to process this unusually sparse and inconsistent PLD in order to create a stable system with certain combinations that might have been missing in the PLD. Similar patterns of regularization by children are documented in Sarah J. Roberts’ (1999) study of the Hawaiian Creole TMA system (see DeGraff 2009: 912–14, 934–6, 945). Such studies give further evidence of the particular role of L1 acquisition in the “L2 acquisition–L1 acquisition cascade” that we are positing here as crucial to Creole formation.

Though we use the metaphor of a “cascade,” it may be more appropriate to speak of a “recursive cascade” or a “series of overlapping cascades” where the utterances produced by both L1 and L2 learners feed into the PLD for subsequent overlapping cohorts of L1 and L2 learners, and then the latter’s utterances in turn feed the PLD of newly born L1 learners and newly arrived L2 learners, and so on. It is through these “recursive L2 acquisition–L1 acquisition cascades” that certain patterns among the output of L1-influenced interlanguages are selected, through prior competition, as key triggers for the subsequent setting of stable properties in the I-Creoles. (See Mufwene 2008: chapter 7 for a discussion of the complex ecological factors – psycholinguistic, structural, typological, social, and demographic – that may count toward the comparative weighing of patterns in competition in the course of language change, including Creole formation.) The fact that the setting of (internal) properties in the Creole I-languages is based on (external) patterns in necessarily heterogeneous PLD automatically creates room for: (i) the appearance of substrate transfer; (ii) individual-level internal innovations such as reanalysis (or “selection with modification” in Mufwene’s terms).

In Aboh & DeGraff (2014, 2016), we analyzed certain phenomena within the clausal and nominal left peripheries of HC, e.g., the emergence of prepositional and modal complementizers and determiners in HC. These patterns emerged based on the reanalysis of superstrate constructions while simultaneously reflecting influence from certain substrate languages. (For related ideas in a different framework, see Mufwene 2008, which has inspired some of our own work.) In terms of current cartographic views (Rizzi 1997, Aboh 2006a), these layers in the clausal and nominal domains represent interfaces between, on the one hand, the predicate and its extended projections and, on the other hand, corresponding properties of discourse representations. Given this characterization, our discussion suggests that these zones of “interface,” e.g., in the left periphery of the nominal and clausal domains, are more open to innovations based on apparent “recombination” of superstrate and substrate properties (Aboh 2006b, 2015). When the parameters to be set involve these interface zones, it is as if learners, as they processed competing variants in the input from the PLD (input influenced by L1s with distinct parameter settings – for example, with respect to the Determiner Phrase (DP)-related word order and semantics), converge on a “third way.” They produce a grammar that combines in novel ways some properties from both the superstrate and the substrate languages. Yet the output of this new grammar does not, and *could not*, faithfully reproduce the patterns from the languages that came in contact in the context of Creole formation (see Aboh & DeGraff 2014 for a DP-related case study).

## 7. Conclusion

In this chapter, we have discussed the notion CREOLE in linguistics. Hypotheses about “Creolization,” “Creole formation,” and “Creole typology” are most controversial. After addressing a sample of terminological, methodological, and conceptual shortcomings regarding these notions, and after providing the reader with a brief historical survey of early Creole studies, we revisited some of the initial definitions of “Creoles” and highlighted the various biases that these definitions have introduced into linguistics from the start. We then identified specific empirical, methodological, and theoretical limitations in some of the hypotheses about “Creole formation” that are most popular in contemporary textbooks and current research. This discussion has led us to suggest that an important factor in the emergence of Creole languages is the interaction between learners of different ages and profiles within a multilingual community. We argued that L2 acquisition played a key role in Creole formation, with both the native languages of the L2 learners and general strategy of L2 acquisition influencing their learning hypotheses and the ultimate shapes of their mental individual grammars, the community-level aggregate of which is referred to as a “Creole language.” In this regard, the term

“Creole language” is just a convenient label to refer to vernaculars that emerged in specific socio-historical settings during the European colonial expansion. Our perspective is that L2 acquisition has played a similar role in other instances of language change, as in the history of English, or in the history of modern Romance languages. L1 acquisition would have also played a key role in Creole formation, as it does in other instances of language change. In Creole societies, as elsewhere, children acted as “agents of selection” in Mufwene’s (2010) terms.

Taking into account both the source languages that were in competition during the period of Creole formation and the profiles of the learners who were implicated in the language-contact situation during that period, our approach should, in principle, make it possible to identify grammatical areas where Creoles innovate new parametric values and where local complexifications arise as a result of socio-historically contingent PLD that are unusually complex due to the language-contact situation. As far as we know, this is a novel approach to Creole formation to the extent that its basic UG-based assumptions and its faithfulness to historical details make it prone to identify, and to account for, such areas of local complexification, alongside potential areas that may seem “simple” due to certain surface-level consequences of adult learners’ strategies. All in all, this scenario considers the restructuring processes that produced Creole languages on a par with those responsible for structural change in all the other languages spoken by our fellow humans. The latter’s speech patterns across time and space rely on the very same Universal Grammar that constrains the paths of Creole formation.

## References

- Aboh, Enoch O. 2006a. Complementation in Saramaccan and Gungbe: The case of C-type modal particles. *Natural Language & Linguistic Theory* 24.1.1–55.
- Aboh, Enoch O. 2006b. The role of the syntax-semantics interface in language transfer. In *L2 acquisition and creole genesis: Dialogues*, ed. by Claire Lefebvre, Lydia White, & Christine Jourdan, 221–52. Amsterdam: J. Benjamins Pub. Co.
- Aboh, Enoch O. 2009. Competition and selection. That’s all! In *Complex process in new languages*, ed. by Enoch O. Aboh and Norval Smith, 317–44. Amsterdam: John Benjamins.
- Aboh, Enoch O. 2015. *The emergence of hybrid grammars. Language contact and change*. Cambridge: Cambridge University Press.
- Aboh, Enoch O. 2016. Creole distinctiveness: A dead end. *Journal of Pidgin and Creole Languages* 31.400–18.
- Aboh, Enoch O. & Umberto Ansaldo. 2007. The role of typology in language creation: A descriptive take. In *Deconstructing creole*, ed. by U. Ansaldo, S. M Mathew, & L. Lim, 39–66. Amsterdam: Benjamins.

- Aboh, Enoch & Michel DeGraff. 2014. Some notes on nominal phrases in Haitian Creole and in Gùngbè: A trans-Atlantic Sprachbund perspective. In *Language contact and language change: Grammatical structure encounters the fluidity of language*, ed. by Tor Afarli & Brit Mæhlum, 203–36. Amsterdam: John Benjamins Publishing Company.
- Aboh, Enoch & Michel DeGraff. 2016. A null theory of Creole formation based on Universal Grammar. In *The Oxford handbook of universal grammar*, ed. by Ian Roberts, 401–58. New York: Oxford University Press.
- Alleyne, Mervyn C. 1980. *Comparative Afro-American: A historical-comparative study of English-based Afro-American dialects of the New World*. Ann Arbor, MI: Karoma Publishers.
- Anonymous. 1811. *Idylles et chansons, ou essais de poésie créole par un habitant d'Hayti*. Philadelphia, PA: Imprimerie de J. Edwards.
- Bakker, Peter. 2003. Pidgin inflectional morphology and its implications for creole morphology. In *Yearbook of morphology 2002*, ed. by Geert Booij & Jaap van Marle, 3–33. New York: Kluwer Academic Publishers.
- Bakker, Peter. 2016. You got Gungbe, but we got the numbers. Feature pools show that creoles are still typologically distinct. *Journal of Pidgin & Creole Languages* 31.2.419–35.
- Bakker, Peter, Aymeric Daval-Markussen, Mikael Parkvall, & Ingo Plag. 2011. Creoles are typologically distinct from non-creoles. *Journal of Pidgin and Creole Languages* 26.1.5–42.
- Bakker, Peter & Mikael Parkvall. 2005. Reduplication in pidgins and creoles. In *Studies on reduplication*, ed. by Bernhard Hurch, 511–31. Berlin: Mouton de Gruyter.
- Bickerton, Derek. 1973. The nature of a creole continuum. *Language* 49.641–69.
- Bickerton, Derek. 1981. *Roots of language*. Ann Arbor, MI: Karoma.
- Bickerton, Derek. 1984. The language bioprogram hypothesis. *Behavioral and Brain Sciences* 7.2.173–203.
- Bickerton, Derek. 1988. Creole languages and the Bioprogram. In *Linguistics: The Cambridge survey*, vol. 2, ed. by Frederic Newmeyer, 268–84. Cambridge: Cambridge University Press.
- Bickerton, Derek. 1990. *Language and species*. Chicago, IL: University of Chicago Press.
- Bickerton, Derek. 1996. The origins of variations in Guyanese. In *Towards a social science of language: Papers in honor of William Labov*, ed. by In Gregory Guy, Crawford Feagin, Deborah Schiffirin, & John Baugh, 311–27. Amsterdam: John Benjamins.
- Bickerton, Derek. 1999. How to acquire language without positive evidence: What acquisitionists can learn from Creoles. In DeGraff 1999c, 49–74.
- Bickerton, Derek. 2008. *Bastard tongues: A trail-blazing linguist finds clues to our common humanity in the world's lowliest languages*. New York: Hill and Wang.

- Blasi, Damian, Susanne Michaelis, & Martin Haspelmath. 2017. Grammars are robustly transmitted even during the emergence of creole languages. *Nature Human Behavior* 1 10.723–29.
- Bunsen, Christian Karl Josias. 1854. *Outlines of the philosophy of universal history applied to language and religion*. London: Longman, Brown, Green, and Longmans.
- Chaudenson, Robert. 2001. *Creolization of language and culture*. London: Routledge.
- Daval-Markussen, Aymeric & Peter Bakker. 2012. Explorations in creole research with phylogenetic tools. In *Visualization of linguistic patterns and uncovering language history from multilingual resources: Proceedings of the European Association of Computational Linguistics 2012 Joint Workshop*, ed. by Miriam Butt, Sheelagh Carpendale, & Gerald Penn, 89–97. Stroudsburg, PA: Association for Computational Linguistics.
- DeGraff, Michel. 1999a. Creolization, language change and language acquisition: A prolegomenon. In DeGraff 1999c, 1–46.
- DeGraff, Michel. 1999b. Creolization, language change and language acquisition: An epilogue. In DeGraff 1999c, 473–543.
- DeGraff, Michel (ed.). 1999c. *Language creation and language change. Creolization, diachrony and development*. Cambridge, MA: MIT Press.
- DeGraff, Michel. 2001a. Morphology in Creole genesis. Linguistics and ideology. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 53–121. Cambridge, MA: MIT Press.
- DeGraff, Michel. 2001b. On the origins of Creole: A Cartesian critique of Neo-Darwinian linguistics. *Linguistic Typology* 5.2/3.213–310.
- DeGraff, Michel. 2002. Relexification: A re-evaluation. *Anthropological Linguistics* 44.4.321–414.
- DeGraff, Michel. 2005a. Linguists' most dangerous myth. The fallacy of Creole Exceptionalism. *Language in Society* 34.4.533–91.
- DeGraff, Michel. 2005b. Word order and morphology in "creolization" and beyond. In *The Oxford handbook of comparative syntax*, ed. by Guglielmo Cinque & Richard Kayne, 293–372. New York: Oxford University Press.
- DeGraff, Michel. 2007. Kreyòl Ayisyen, or Haitian Creole. In Holm & Patrick 2007, 101–26.
- DeGraff, Michel. 2009. Language acquisition in creolization and, thus, language change: Some Cartesian-Uniformitarian boundary conditions. *Language & Linguistic Compass* 3/4.888–971.
- DeGraff, Michel, Robert Berwick, & Trevor Bass. forthcoming. Language acquisition and computational phylogenetics: Creole languages and family values. In *Oxford handbook of historical and diachronic syntax*, ed. by Paola Crima & Giuseppe Longobardi. Oxford: Oxford University Press.
- Dryer, Matthew & Martin Haspelmath (eds.). 2011. *The world atlas of language structures online*. Munich: Max Planck Digital Library. Available at <http://wals.info/>, accessed February 9, 2017.

- Ducœurjoly, S.-J. 1802. *Manuel des habitans de Saint-Domingue*, 2 vol. Paris: Lenoir.
- Dunn, Michael, Stephen C. Levinson, Eva Lindström, Ger Reesink, & Angela Terrill. 2008. Structural phylogeny in historical linguistics: Methodological explorations applied in Island Melanesia. *Language* 84.4.710–59.
- Fattier, Dominique. 1998. Contribution à l'étude de la genèse d'un créole: l'atlas linguistique d'Haïti, cartes et commentaires, 6 vols. PhD dissertation, Université de Provence. (Distributed by Presses Universitaires du Septentrion, France.)
- Fon Sing, Guillaume. 2017. Creoles are not typologically distinct from non-Creoles. *Language Ecology* 1.44–74.
- Fon Sing, Guillaume & Jean Leoue. 2012. Creoles are not typologically distinct from non-creoles. Paper presented at the Ninth Creolistics Workshop: Contact languages in a global context: Past and present, Aarhus University, April 11–13, 2012.
- Frei, Henri. 1929. *La grammaire des fautes: introduction à la linguistique fonctionnelle*. Geneva: Slatkine.
- Goodman, Morris. 1964. *A comparative study of Creole French dialects*. The Hague: Mouton.
- Gougenheim, Georges. 1929. *Étude sur les périphrases verbales de la langue française*. Paris: Les Belles Lettres.
- Holm, John. 2000. *An introduction to pidgins and creoles*. Cambridge: Cambridge University Press.
- Holm, John. 2007. Introduction. In Holm & Patrick 2007, v–xi.
- Holm, John. 2008. Creolization and the fate of inflections. In *Aspects of language contact. New theoretical, methodological and empirical findings with special focus on romansisation processes*, ed. by Thomas Stolz, Dik Bakker, & Rosa Salas Paloma, 299–324. Berlin: Mouton.
- Holm, John & Peter Patrick. 2007. *Comparative creole syntax: Parallel outlines of 18 creole grammars* (Westminster Creolistics Series, 7). London: Battlebridge Publications.
- Hulk, Aafke & Natasha Müller. 2000. Bilingual first language acquisition at the interface between syntax and pragmatics. *Bilingualism: Language and Cognition* 3.3.227–44.
- Kegl, Judy, Anne Senghas, & Marie Coppola. 1999. Creation through contact: Sign language emergence and sign language change in Nicaragua. In DeGraff 1999c, 179–237.
- Kouwenberg, Silvia. 2010. Creole studies and linguistic typology: Part 2. *Journal of Pidgin and Creole Languages* 25.2.359–80.
- Kouwenberg, Silvia & John Victor Singler. 2020. Are creoles a special type of language? Methodological issues in new approaches to an old question. In *Advances in contact linguistics: In honour of Pieter Muysken*, ed. by Norval Smith, Tonjes Veenstra, and Enoch O. Aboh, 107–60. Amsterdam: John Benjamins.



- Kroch, Anthony. 1989. Reflexes of grammar in patterns of language change. *Language Variation and Change* 1.199–244.
- Kroch, Anthony, Ann Taylor, & Donald Ringe. 2000. The Middle English verb-second constraint: A case study in language contact and language change. In *Textual parameters in older languages*, ed. by Susan Herring, Pieter van Renssen, & Lene Schøsler, 353–91. Amsterdam: John Benjamins.
- Lalla, Barbara & Jean D’Costa (eds.). 1989. *Voices in exile: Jamaican texts of the 18th and 19th centuries*. Tuscaloosa, AL: University of Alabama Press.
- Lang, Jürgen. 2007. Portuguais crioulo, espagnol crioulo et français créole en tant que termes désignant les langues: les premiers témoignages de l’Ouest africain. *Creolica*. Available at [www.creolica.net/article-63.html](http://www.creolica.net/article-63.html), accessed February 9, 2017.
- Lang, Jürgen, John Holm, Jean-Louis Rougé, & Maria João Soares (eds.). 2006. *Cabo Verde. Origens da sua sociedade e do seu crioulo*. Tübingen: Narr.
- Lefebvre, Claire. 2006. *Creole genesis and the acquisition of grammar: The case of Haitian Creole*. Cambridge: Cambridge University Press.
- Luís, Ana. 2008. Tense marking and inflectional morphology in Indo-Portuguese creoles. In *Roots of creole structures: Weighing the contribution of substrates and superstrates*, ed. by Susanne Michaelis, 83–121. Amsterdam: John Benjamins.
- McWhorter, John H. 1998. Identifying the creole prototype: Vindicating a typological class. *Language* 74.4.788–818.
- McWhorter, John H. 2001. The world’s simplest grammars are creole grammars. *Linguistic Typology* 5.2/3.125–66.
- McWhorter, John H. 2011. *Linguistic simplicity and complexity: Why do languages undress?* Boston, MA: De Gruyter Mouton.
- Meillet, Antoine. 1958. *Linguistique historique et linguistique générale*, vol. 1. Paris: Honoré Champion.
- Moreau de Saint-Méry, M.L.E. 1797. *Description topographique, physique, civile, politique et historique de la partie française de l’isle de Saint Domingue*, 3 vols. Philadelphia, PA: Chez l’auteur.
- Mufwene, Salikoko S. 1989. La créolisation en bantou: les cas du kituba, du lingala urbain, et du swahili du Shaba. *Etudes Créoles* 12.74–106.
- Mufwene, Salikoko S. 1997. Jargons, pidgins, creoles, and koines: What are they? In *The structure and status of pidgins and creoles*, ed. by Arthur Spears & Donald Winford, 35–70. Amsterdam: J. Benjamins.
- Mufwene, Salikoko S. 2000. Creolization is a social, not a structural, process. In *Degrees of restructuring in creole languages*, ed. by Ingrid Neumann-Holzschuh & Edgar Schneider, 65–84. Amsterdam: John Benjamins.
- Mufwene, Salikoko S. 2001. *The ecology of language evolution*. Cambridge: Cambridge University Press.
- Mufwene, Salikoko S. 2008. *Language evolution: Contact, competition and change*. London: Continuum.
- Mufwene, Salikoko S. 2010. Second language acquisition and the emergence of creoles. *Studies in Second Language Acquisition* 32.1–42.

- Müller, Natasha. 1998. Transfer in bilingual first language acquisition. *Bilingualism: Language and Cognition* 1.151–71.
- Müller, Natasha & Aafke Hulk. 2001. Cross-linguistic influence in bilingual first language acquisition: Italian and French as recipient languages. *Bilingualism: Language and Cognition* 4.1.1–21.
- Muysken, Pieter. 1981. Half-way between Quechua and Spanish: The case for relexification. In *Historicity and variation in Creole Studies*, ed. by Arnold Highfield & Albert Valdman, 52–78. Ann Arbor, MI: Karoma.
- Muysken, Pieter & Norval Smith (eds.). 1986. *Substrata vs. universals in Creole genesis: Papers from the Amsterdam Creole Workshop, April 1985*. Amsterdam: John Benjamins.
- Newport, Elissa. 1999. Reduced input in the acquisition of signed languages: Contributions to the study of creolization. In DeGraff 1999c, 161–78.
- Nichols, Johana. 2006. The comparative method as heuristic. In *The comparative method reviewed: Regularity and irregularity in language change*, ed. by Mark Durie & Malcolm Ross, 39–71. New York: Oxford University Press.
- Nichols, Johana & Tandy Warnow. 2008. Tutorial on computational linguistic phylogeny. *Language and Linguistics Compass* 2.5.760–820.
- Notley, Anna, Elisabeth van der Linden, & Aafke Hulk. 2007. Cross-linguistic influence in bilingual children: The case of dislocation. In *Romance languages and linguistic theory 2005*, ed. by S. Baauw, F. Drijkoningen, & M. Pinto, 229–59. Amsterdam: John Benjamins.
- Palmié, Stephan. 2006. Creolization and its discontents. *Annual Review of Anthropology* 35.433–56.
- Parkvall, Mikael. 2008. The simplicity of creoles in a cross-linguistic perspective. In *Language complexity: Typology, contact, change*, ed. by Matti Miestamo, Kaius Sinnemäki, & Fred Karlsson, 265–85. Amsterdam: John Benjamins Pub. Co.
- Pelleprat, Pierre. 1665. *Relation des missions des PP. de la Compagnie de Jésus dans les îles et dans la terre ferme de l'Amérique Méridionale*. Paris: Cramoisy & Cramoisy.
- Plag, Ingo. 2008a. Creoles as interlanguages: Inflectional morphology. *Journal of Pidgin and Creole Languages* 23.1.114–35.
- Plag, Ingo. 2008b. Creoles as interlanguages: Syntactic structures. *Journal of Pidgin and Creole Languages* 23.2.307–28.
- Plag, Ingo. 2009. Creoles as interlanguages: Word-formation. *Journal of Pidgin and Creole Languages* 24.2.339–62.
- Rizzi, Luigi. 1997. The fine structure of the left periphery. In *Elements of grammar*, ed. by Liliane Haegeman, 281–337. Dordrecht: Kluwer.
- Roberts, Peter. 2008. *Roots of Caribbean identity*. Cambridge: Cambridge University Press.
- Roberts, Sarah Julianne. 1999. The TMA system of Hawaiian Creole and diffusion. In *Creole genesis, attitudes and discourse: Studies celebrating Charlene J. Sato*, ed. by John Rickford & Suzanne Romaine, 45–70. Amsterdam: John Benjamins.

- Siegel, Jeff. 2008. *The emergence of pidgin and creole languages*. Oxford: Oxford University Press.
- Sylvain, Suzanne. 1936. *Le créole haïtien: morphologie et syntaxe*. Wetteren: De Meester.
- Stewart, Charles. 2007. *Creolization: History, ethnography, theory*. Walnut Creek, CA: Left Coast Press.
- Taylor, Douglas. 1956. Language contact in the West Indies. *Word* 12.399–414.
- Thomason, Sarah (ed.). 1997. *Contact languages: A wider perspective*. Amsterdam: John Benjamins Pub. Co.
- Thomason, Sarah & Terrence Kaufman. 1988. *Language contact, creolization, and genetic linguistics*. Berkeley, CA: University of California Press.
- Velupillai, Viveka. 2015. *Pidgins, creoles and mixed languages: An introduction*. Amsterdam: John Benjamins Publishing Company.
- Weinreich, Uriel. 1958. On the compatibility of genetic relationship and convergent development. *Word* 14.374–9.
- Wichmann, Søren & Arpiar Saunders. 2007. How to use typological databases in historical linguistic research. *Diachronica* 24.2.373–404.