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1 Uniformitarianism in Language Speciation

An Introduction

Salikoko S. Mufwene and Enoch O. Aboh

1.1 The Background

Uniformitarianism, aka the Uniformitarian Principle or the Principle of Uniformity, is a research approach that claims that the processes assumed to account for phenomena in the present or recent past shed light on how similar phenomena occurred in the distant past, on which the relevant data are fragmentary. Its origins have typically been associated with Charles Lyell's *Principles of geology* (1830–1833), which actually “revived and extended the geological ideas of James Hutton” in his 1788 *Theory of the Earth* (Cannon 1960: 38; see also Bushman 1983: 42). Like its opposite *Catastrophism*, the term *Uniformitarianism* was actually coined by William Whewell in his 1832 review of Lyell's book (Cannon 1960: 38). The definition of Lyell's position also appears to be the conclusion articulated by those who read and discussed the work, in which he elaborated on Hutton's position with numerous examples from geology. It was certainly inspired by the subtitle of *Principles of geology*, viz., *An attempt to explain the former changes of the Earth's surface by reference to causes now in operation*.¹

As explained in Gordon (1913: 80), Uniformitarianism is the assumption that “geological explanations in particular and scientific explanations in general are circumscribed by the uniformly operating regularities of nature, or extrapolations from them.” This presupposes that

the behavior of nature is regular and indicative of an objective causal structure in which presently operative causes may be projected into the past to explain the historical development of the physical world and projected into the future for the purposes of prediction and control (p. 82).

¹ The modern, Pantianos Classics edition of the book has the following note at the bottom of the cover page: *The Modern Changes of the Earth and Its Inhabitants Considered as Illustrative of Geology*. Both Hutton and Lyell advocate using observations in the present or recent past to explain how changes must have happened in the distant past, on which the evidence is rather fragmentary. We return to this note in Section 1.2 to explain how Uniformitarianism has evolved, especially in linguistics.

Or, as explained by Stanford (2015: 876),

the broad topographic and geographic features of the Earth were produced by earthquakes, floods, volcanoes, and other natural causes acting consistently over long periods of time at the same frequencies and magnitudes we now observe.

The position is clearly the opposite of Catastrophism, according to which “the Earth has largely been shaped by sudden, short-lived, violent events, possibly worldwide in scope.” The ways in which the catastrophes happened have varied in time and space, and therefore the present could not be “the key to the past,” contrary the Uniformitarian Principle.

Although it has been quite seminal and has attracted a great deal of interest among scholars seeking explanations for historical changes, Uniformitarianism has obviously been controversial from its inception in the nineteenth century to date. In the context of linguistics, the controversies are extensively discussed in Joseph and Janda (2003), in which they attribute the first invocation of the principle to Labov (1972). According to the latter, “the forces operating to produce linguistic change today are of the same kind and order of magnitude as those which operated in the past” (p. 275). This view is in line with traditional approaches to the emergence of syntax and its morphological exponent. For instance, based on typological evidence, Givón (1971) hypothesized that “today’s morphology is yesterday’s syntax” (p. 25). Likewise, Croft (2003: 233, cited in Walkden 2019: 5), submits that “the rules that govern language structure today are the same that governed language structure yesterday and will be the same that will govern language structure tomorrow.”

These formulations appear to be the reversal of the Uniformitarian Principle as discussed by geologists. They are consistent with Gould (1986: 62):

The uniformitarian argument constructs history from an observable, small-scale present. (...)

In (...) cases of maximal information, we can use the uniformitarian method in its purest form: make rigorous measurements of the modern process and extrapolate into available time to render the full result.

We find them useful, because, as we do in this book, these hypotheses create a two-way street between the past and the present or the recent past. That is, while the present can help us make better sense of the past, on which the relevant information about how changes actually occurred is fragmentary, the past can also, once it is well understood, help us better explain the present. We therefore believe that recent changes – especially those producing language speciation, more specifically the emergence of creoles in the present book – can help us account more informatively for past cases of speciation, such as the emergence of the Romance or the Bantu languages. In turn, making sense of these past evolutions helps us explain non-exceptionally the emergence of creole vernaculars and other cases of new language varieties

associated with the indigenization of colonial languages appropriated by “non-heritage speakers,” or resulting from language mixing practices. Reviews of the history of Uniformitarianism vs. Catastrophism, such as Cannon (1960) and Gould (1986), suggest that this is a wise way to proceed without being trapped in the old controversy. We think that the anatomical and mental uniformity of *Homo sapiens*, which still allows for inter-individual and inter-community variation, supports the hypothesis of similarities in human behavior, including linguistic, which underlies Uniformitarianism as we interpret it, albeit as a research program.

In evolutionary biology, variation is typical of any population, largely because the recombination of genes from the feature pool varies from one individual to another. Specific patterns of socialization and of mating produce convergences of genotypes and phenotypes in a population. Similar variation has also been acknowledged in linguistics through notions such as IDIOLECT, DIALECT, ETHNOLECT, SOCIOLECT, and the like, which still embrace LANGUAGE as a phenomenon shared by all humans and operating according to shared fundamental architectural principles across various ethnolinguistic groups. What is relevant to our position is that, despite the variation, there are also typical patterns in our adaptive responses to the specific changing ecologies in which languages function. These have been observed across time in human history. This is what we are focusing on regarding linguistic changes, including those that produced creoles and pidgins.

1.2 Uniformitarianism, Language Contact, and Language Speciation

Genetic creolistics bears the legacy of originating in the second half of the nineteenth century, like linguistics itself, when the exploitation colonization of Africa and Asia was entrenching its roots and being justified with the French ideology of *mission civilisatrice* or the British “white man’s burden.” Non-Europeans were then considered as less evolved (Darwin 1871) and too inferior anatomically and mentally to learn the “sophistications” of European languages (Bertrand-Bocandé 1849; Baissac 1880; Vinson 1882; Adam 1883).² Also, language contact was then not considered as an actuating factor in the speciation of the proto-Indo-European construct into modern Indo-European languages – not even that of Vulgar Latin into the Romance languages. European philologists then assumed that only the standard (written) varieties were legitimate language varieties (see also Dante 1996).

² As a matter of fact, both Schlegel (1846) and Jespersen (1922) assume the same, the former by ranking both the isolating morphosyntax of Chinese and agglutination in many African and Native American languages as primitive, and the latter in claiming that there are populations and languages that are less evolved than their European counterparts.

Applying the comparative method, pioneer practitioners of genetic linguistics focused exclusively on written texts and assumed that language speciation proceeded uniparentally. In this intellectual culture, those who took note of creoles just assumed that these were aberrations and consequences of the appropriation of the European language by their “less evolved” learners/speakers. Thus, the European languages had putatively just been “misshaped” into “bastard tongues” (see the title of Bickerton 2008) as they were processed by less evolved and infantile minds of the non-European enslaved populations or contract laborers. Although modern creolists claim not to be racists, and we have no reason to question this, it is nonetheless time to question the racist underbelly of what DeGraff (2003, 2005) has labeled as “Creole Exceptionalism.”

This approach assumes that the emergence of creoles and pidgins is unlike that of other languages considered more normal or more natural (see, e.g., Hock & Joseph 1996), largely because creole formation is grounded in highly multilingual contact ecologies in which the target language (identified in creolistics as “base language” or “lexifier”) was extensively restructured in unpredictable and different ways. An important cause of the alleged exceptional genesis of both creoles and pidgins is a putative break in the transmission of both the lexifier and the languages of the Africans. There was no significant population of European descent through whom the colonists’ language could be passed on; the languages of the Africans were banned in the colonies, and the enslaved populations were speakers of too many different languages for any of them to prevail and be acquired by their offspring. Lack of mutual intelligibility between the creoles and pidgins, on the one hand, and their lexifiers, on the other, has traditionally also been invoked according to a diachronic scenario in which pidgins were makeshift languages produced by adult speakers of different languages, while creoles were created by locally born children out of this linguistic chaos. Consequently, creoles and pidgins have been treated as “children out of wedlock” (borrowing a phrase from Mufwene 1997), because they putatively cannot be classed genetically with their lexifiers nor with their substrate languages (Thomason & Kaufman 1988).

To be sure, with the exception of scholars such as Schuchardt (1882, 1884), the nineteenth-century European philologists were too trapped in the colonial ideology of non-Europeans’ mental inferiority to think that the contact-based emergence of creoles provided materials to revisit the traditional narrative of the uniparental emergence of the Romance and other Indo-European languages. This is precisely what Hutton (1788, quoted by Bushman 1983: 44) argued for past effects whose causes remained unknown and on which knowledge of “natural laws” known to apply in the present, or recent past in the specific case of creoles and pidgins, can shed some light. We are now in a position to pursue Hugo Schuchardt’s observation that creoles are probably

telling us something about how the Romance and other Indo-European languages emerged from population movements and language contacts occurring in novel population structures, as we can now articulate his view in modern terms.³

This is the essence of our interpretation of the Uniformitarian Principle, according to which the recent past or the present should help us explain in better informed ways distant cases of language speciation. In the same vein, a better understanding of these should in turn help us make better sense of recent cases of natural and normal language evolution without positing “Creole Exceptionalism.” Heeding Gould (1986: 66), we submit that this is history repeating itself through homologies. We endeavor to identify common causes of specific changes and the processes that apply repeatedly over time, bearing in mind that Uniformitarianism is a research program that seeks to capture the kinds of changes that occur again and again in history under similar, but non-identical, ecological conditions.⁴ However, because the ecologies are not identical, nor are the materials undergoing changes, we are happy with similarities captured aptly by the phrase “same difference.”

A case in point is the dispersal of the Bantu population, which can be interpreted as colonial expansion, during which the Indigenous Pygmy, San, and Khoi populations were marginalized from their lands and/or partly assimilated through cross-group mating (see, e.g., Sands 2022 and Bostoen & Gunnink 2022), while their languages were being displaced. What has hardly been discussed is that, through the same contacts, Proto-Bantu speciated. That this evolution was partly a consequence of contact between these populations is evidenced by, for instance, the presence of clicks in languages such as isiXhosa and isiZulu. As a matter of fact, this approach can also help us better account for the speciation of Proto-Indo-European actuated partly by contacts with the pre-Indo-European languages wherever the Indo-Europeans dispersed geographically. The population structures that ensued account for the extensive loss of pre-Indo-European languages too. Mutual colonization among Indo-Europeans accounts for the speciation of Latin into the Romance languages in Continental Europe, as well as the birth and subsequent speciation of English in the British Isles. If Mufwene (2001) is correct in assuming that the Angles (which should not be understood as a uniform and

³ See Beckwith (2009) for similar considerations on the speciation of Proto-Indo-European as driven by “creolization” (but see Mufwene 2000 about the elusive meaning of this concept). Note that, like Beckwith, many linguists invoke “creolization” in reference to the kind of contact-induced restructuring whose outcome is stipulated as a separate language from its lexifier or protolanguage.

⁴ Note that even in the case of creoles the sociohistorical ecologies of language contacts were not identical from one colony to another. This is a factor that accounts for variation among them, however minor the differences appear to be between some of them.

homogeneous community) prevailed over the other Germanic colonists in the British Isles (based on the names *England* as ‘land of the Angles’ and *English* as ‘the way the Angles speak or do things’), then one cannot overlook migrations and new population structures as actuators of changes, including language birth and death (Mufwene 2004, 2008). The same explanation can apply to the spread and the speciation of Chinese into its modern varieties (Wang 2014; LaPolla 2022), though one can debate whether they are dialects of the same racialized language or different languages, as they are not mutually intelligible, etc., etc. One can in fact speculate that this approach can provide two of the reasons why the Neanderthal was replaced by *Homo sapiens*: interbreeding and weak/no immunity to pathogens introduced by *Homo sapiens*, just like in the Americas when people from the so-called Old World came in contact with Indigenous populations. The contacts have also had an effect on the latter’s languages, which either died or have become endangered.

We must emphasize that Uniformitarianists in genetic creolistics, focused on the emergence of creoles, are not denying that there are some differences between the outcomes of the restructuring of, say, Latin into the Romance languages, and those of the restructuring of, say, Portuguese, into Portuguese creoles.⁵ Rather, they note that there are also differences among creoles in the respects in, and the extents to, which they diverge from their lexifiers and substrate languages – in ways also similar to how the Romance languages vary among themselves structurally and diverge from their source languages.

The ecology of language evolution is a packet of numerous factors that influence the outcome of the restructuring process, which is definitely different from pouring all ingredients for cooking a dish at the same time into a pot. Periodization (well underscored by Chaudenson 2001, 2003) is a critical factor accounting for why, for instance, contract laborers (and their families) brought from India to Mauritius and Trinidad contributed little to the structures of their respective creoles, despite currently forming a significant proportion of the populations in these polities.

From the point of view of language shift and influence on the structures of the target languages, periodization is also one of the factors that explain why the influence of Continental European Languages on North American English varieties is so negligible compared to that of, say, Irish on Appalachian English or African languages on Gullah. In the latter specific cases, becoming numerically dominant populations at some stage of the evolution of the languages in

⁵ As a matter of fact, these differences are to be expected, because some of the structures that Latin had (for instance, a rich case and declension system and a complex mood system) had already disappeared in the neo-Latin varieties (Romance languages) that came in contact with non-European languages in especially the seventeenth and eighteenth centuries. The grammars of modern Romance languages are different in several ways from those of (Vulgar) Latin. For instance, Latin had neither articles nor modal auxiliaries.

the histories of the relevant colonies has the effect of an attractor in the science of complexity, spinning the evolutionary trajectory in a new direction. This is a critical factor that bears on explaining why, for instance, there is substantial influence of the Gbe languages on Haitian Creole and Saramaccan but not as much from Kikongo languages, notwithstanding the role of structural congruence between the lexifier and the relevant substrate languages and even among the latter (also known as the homogeneity of the substrate; Singler 1988).

While the equation that can capture the restructuring process is the same for all the creoles and apparently for languages that emerged from the contacts of earlier languages, the values of the variables vary from one contact ecology to another. This position is also acknowledged in the geology literature that has advocated Uniformitarianism in the evolution of the Earth and its inhabitants in different places. The emphasis has been primarily on the uniformity of the processes that produce changes in response to specific conditioning factors (as has also been well articulated in the science of complexity).

With the restructuring of cultural (including linguistic) traits itself proceeding gradually and cumulatively at the population level rather than in a saltational way involving everybody at once, the variation in effects should be considered natural, while substratum and adstratum remain consistent factors that cause structural changes in all contact ecologies. From this perspective, the same language restructuring equation can be posited as much for the emergence of modern non-creole languages as for creoles (Schuchardt 1882, 1884; Bailey & Maroldt 1977; Schlieben-Lange 1977; Mufwene 2001, 2015; DeGraff 2003, 2005; Aboh 2015), without having to claim that the latter have had an exceptional kind of genesis.

Indeed, Chaudenson (2001, 2003) was not off the mark in noting that in many cases French creoles had extrapolated and regularized grammatical patterns that were already evident in their nonstandard lexifiers, though we must underscore the fact that the substrate languages contributed significantly to the selection process (among competing variants) that produced this divergence away from the lexifier, with the outcomes affected by other concurrent or subsequent conditioning/ecological factors. And here in fact, one must note that the transfer of substrate patterns to the target languages was also constrained by those of the latter⁶ or simply modified to be integrated in the emergent structures of creoles themselves, as shown by Aboh (2015) and Bao Zhiming (2015). Although genetic linguists say that in the case of, say, the Romance languages data on the substrate Celtic languages are no longer available, there is indirect evidence that can inform us on the feature pools

⁶ Andersen (1983) drew attention to this factor in his paper "Transfer to somewhere."

that emerged from the contact of Vulgar Latin (on which data from spoken varieties are certainly fragmentary too) with Celtic languages. The frustration is the same one experienced by the geologists that advocated for Uniformitarianism as a research program.

A case in point is the hot debate on whether, contrary to Classical Latin, Medieval Romance languages display a V2 order similar to the Germanic languages (Wolfe 2019). To the best of our knowledge, much of this debate has subscribed to the uniparental approach, seeking to explain the emergence of V2 patterns in Medieval Romance languages and its loss in contemporary ones as “internally motivated.” To the contrary, the uniformitarian approach we advocate in this book suggests that we look more closely into their contact ecologies, paying close attention to the relevant structures of especially the Celtic substrate languages. In this book, we focus especially on some of the contact ecologies that shaped the language varieties disenfranchised from the realm of Indo-European languages with the names *creole* and *pidgin*.⁷ We hope that our accounts provide an alternative approach to language speciation that experts of, say, the emergence and evolution of the Romance languages or English can use to revisit the received accounts.

In the late nineteenth and early twentieth centuries, the early linguists focused essentially on identifying some colonial language varieties as creoles or pidgins, based typically on the fact that their speakers were not of European descent, and on identifying features that marked them as divergent from the varieties spoken by European elites. However, they hardly invoked more than language contact between European and non-European languages as a relevant factor in identifying them. This characterization was so non-operational that it has led to haphazard applications of the labels to new varieties without any reliable justifications for why they should be assigned to these language categories in the first place.

The issue arises more seriously when the term *pidgin* is applied to varieties that have arisen from contacts among non-European languages only and they are stipulated as *creoles* after they have acquired, according to the received narrative, a sizeable proportion of “native speakers” or have functioned as vernaculars in especially urban centers. No proof has been produced about whether they started as broken languages (not to be confused with the interlanguages produced by individual learners), no more than has been shown about those creoles and expanded pidgins that putatively evolved from incipient pidgins characterized by Bickerton (1981, 1984) as “macaronic,” that is, without a grammar.

⁷ In fact, given how casually the terms have been applied to diverse languages, one can even ask what kinds of language varieties they are by contrast with those new varieties that have not been assigned these labels. This question will remain tacit in this book.

Comparing features of these recent language varieties with those of putatively “more normal or natural” varieties of their nonstandard lexifiers should help us determine whether creoles and pidgins have really evolved exceptionally and how. An interesting case is that of Amish English, which, like African American English and English creoles, is the outcome of both language shift and language restructuring. Note that African American English is not the outcome of decreolization (Mufwene 2004) and, as far as we can tell, is not more extensively restructured than Amish English. Nor is the latter a decreolized variety, as one is hard pressed to identify its creole origins. The research on the emergence and evolution of all these new colonial varieties of European languages should be conducted without the foregone conclusion that creoles have evolved abnormally or atypically. After all, they appear to function as normal languages, despite their ideological reduction, by most creolists, to their basilectal varieties, which have been subalternized to their acrolectal counterparts.

Regarding methodology, one must determine whether, in the first place, creoles and pidgins evolved from standard varieties of their lexifiers. The history of colonization suggests otherwise, as the elite European social class was hardly involved in the expeditions that established the early settlement and trade colonies. The first ones involved were employees of companies known as, for example, the Virginia or West Indies Companies (English) as well as la Compagnie royale d’Afrique (French), and indentured servants, some of whom were also L2-speakers of the relevant European colonial languages. The seamen who had been working for the Portuguese Crown since the mid-fifteenth century were not better off. They spoke nonstandard *koinéizing* varieties to which the enslaved non-European laborers were exposed in the settlement colonies, as did their Indigenous brokers along the coast in Africa and Asia. Chaudenson (1992, 2001) was so accurate in characterizing the initial settlers’ living condition with the word *Robinsonade*, in allusion to the protagonist of Daniel Defoe’s novel *Robinson Crusoe* (1719), viz., abject material destitution.

Generally, most of the initial settlers consisted of destitute members of the metropolitan populations – different from those of Christopher Columbus and his crew – who gambled for better lives in territories that had been described to them as paradisiacal. They expected “primitive” Indigenous people to serve them, much to their disappointment after arrival (Morgan 1992). Lalla and D’Costa (1990) show, from surveying historical records, that in Caribbean English colonies even members of the plantation mansions, especially women, spoke nonstandard varieties of English. Likewise, texts documented by Chaudenson (1981) and Hazaël-Massieux (2008) show that the early approximations of French by the non-Europeans in the colonies were closer to their seventeenth- and eighteenth-century nonstandard lexifiers than present-day

creoles. Chaudenson (1992, 2001) also reports that, based on comments from Father Jean Mongin (1679) and Father Jean-Baptiste Labat (1722), most French colonists were “patoisants,” viz., speakers of “patois,” a term then used ambiguously in French both for Celtic languages and non-urban varieties of Neo-Latin vernaculars in France.⁸

There is a sense in which one can argue that if the ascription of a colonial variety of a European language to the category of CREOLE is based on the divergence of its structures from those of its lexifier (including its standard variety), then even acrolectal varieties of creoles that have evolved from the same languages should also be considered “creoles,” as offensive as the term may sound to their speakers (DeGraff & Mufwene 2021), the majority of whom are of non-European descent. That this has not been done, except by Bernabé et al. (1993; see also Kabir 2023), makes evident the role of economic and political power in the ascription of language varieties to specific social categories since the colonial period. Thus, varieties spoken by White Creoles and the non-White elite are not called *creoles*, although, as shown by Klingler (2003) in the case of Louisiana, they share many features with the variety spoken by Creole descendants of Africans and are unintelligible to educated speakers of especially metropolitan French.⁹

Uniformitarianism appears to be the neutral approach to the emergence of creoles’ structures, which are not necessarily all identical from one creole vernacular to the other. They have indeed diverged, sometimes in detail only, from those of their metropolitan and even colonial non-creole counterparts. Note that the latter colonial varieties themselves are typically *koinés* that have also diverged from metropolitan varieties. For instance, both Québécois and Louisianan French varieties are divergent in some respects from metropolitan, Hexagonal French varieties, as are American White varieties of English from their British counterparts. Examining them, we should ask whether morpho-syntactic simplification, poverty of tones and derivational morphemes (McWhorter 1998, 2012) are unique to creoles.

DeGraff (2001) has demonstrated that the impoverishment of derivational morphemes should not have been considered at all as a factor defining

⁸ *Patois* basically means a variety unintelligible to those who had the privilege of some education and the power to write their perceptions of others’ ways of speaking. This is how the term was also used in reference to indigenous languages in the colonies, reflecting their racist attitudes to the speakers themselves. Unsurprisingly, the term was also applied to creoles, some of which are still identified locally by this name, as in Guadeloupe and in Jamaica (*Patwa*).

⁹ We dare not invoke standard French, as it is bookish, nor the recommendations of the Académie Française, because they are generally ignored by metropolitan vernacular French speakers. On the other hand, Mufwene witnessed in 2010 an embarrassing incident at a conference on French linguistics in New Orleans: several French linguists giggled at the way a representative of the local White Creole community spoke French in his welcome address, because it had little resemblance to the metropolitan French vernacular(s) their ears were more familiar with.

McWhorter's (1998) "creole prototypes," independent of the fact that the idea of "creole prototypes" was fundamentally a stillborn baby. Haitian Creole is not derivationally impoverished and has been productive with its own innovations, well documented by DeGraff! This response to McWhorter eliminates one of the latter's central pieces of evidence for his conjecture.

Regarding tones, Chaudenson (1992, 2001, 2003) has argued that the lexifiers themselves, by contrast with the vast majority of the substrate languages, are not tonal languages. Absence of tones in creoles therefore shows that the African learners of colonial French and other relevant European languages learned more of the nonstandard lexifiers to which they were exposed than they have been given credit for. This conclusion is supported by the fact that they also learned notions such as articles (in the case of English creoles) and adjectives, which are either nonexistent or represent a small lexical class only in Sub-Saharan African languages. Thus, Haitian Creole, for instance, involves both prenominal and postnominal adjectives like French, while the Gbe languages involve a limited set of adjectives (i.e., color, size, aesthetic), which obligatorily occur post-nominally (Aboh 2015).

As for the supposed impoverishment of inflectional morphology, Chaudenson notes that French creoles have generally (over)generalized tendencies that were already attested in their nonstandard lexifiers. In a context where the substrates also lack the Indo-European type of inflectional morphology, but rather rely on tone specifications or free-standing morphemes when relevant, competition between patterns in the lexifiers and those in the substrates are responsible for the loss of certain types of inflectional encoding, but not all. Accordingly, the creoles tend to retain freestanding inflectional expressions rather than affixes. The same can be said of tones where the competition between stress-based intonation and tone-based intonation can lead to the loss of the latter, or a combination of both as is evident from Saramaccan (Good 2004a, 2004b).

In this context, the task of the linguist is not to count instances of what was lost (*pace* McWhorter 1998, 2001, 2012; cf. Mufwene 2014) but rather to identify which aspects of grammatical systems are vulnerable during competition and selection, so that some patterns fade out, while others are retained. What must be learned from these observations shows that the restructuring processes from which creoles have evolved retained some structures of their lexifiers, though some have been significantly influenced by those of the substrate languages. According to Aboh (2015), even some substrate patterns have been modified too. Because no human language can be said to retain all the properties of the languages that contributed to its birth, we cannot expect the creoles to retain all the features of their lexifiers and substrates, no more than we can expect modern French or English to have retained all the properties of their protolanguages. See also Bao Zhiming (2015) regarding Singaporean colloquial English under the influence of Chinese languages and Malay.

Overall, typological realignment in morphosyntax (Mufwene 2014), such as from fusional morphology to isolating morphosyntax, need not be interpreted as morphosyntactic simplifications. An important reason is that languages have hybrid grammars (involving also principles, rules, or constraints) that should not be reduced to superficial morphology only. It is thus also noteworthy that creoles have universally maintained properties such as lexical and syntactic categories, constituent structures, compositionality, and rigid TMA order, which are fundamental in all languages.

As noted previously, one of the most deeply entrenched legacies of accounts of the emergence of creoles since the late nineteenth century is the claim that they emerged from erstwhile pidgins. This view is maintained in all the linguistics textbooks that we consulted. To be fair, the reference here is to incipient pidgins (characterized as “macaronic” in Bickerton 1981, 1984), since the grammatical structures of languages referred to nowadays as pidgins (e.g., Tok Pisin, Nigerian Pidgin or Naija, and Cameroon Pidgin English) are just as complex as those of so-called creoles, or any human language, for that matter (see, e.g., Féral 1989). None of the nineteenth-century forerunners of genetic creolists ever witnessed the emergence of a putatively incipient pidgin (i.e., a structureless language used by a whole community for basic communication), let alone that of a creole from such a “broken language.” Maybe no one will ever observe such a situation, given how languages speciate, and the fact that grammatical changes underlying the act of language creation first happen at the individual level and then spread within the whole community. Because everybody in a community is not a “poor learner,” it is unlikely that a whole community will engage in a macaronic pidgin for daily communication (Mufwene 2001, Aboh 2015).

Even Hugo Schuchardt, who was so insightful in urging his philologist contemporaries to rethink how the Romance (and other modern Indo-European) languages may have emerged, collected data from linguistically untrained missionaries who answered his queries by (snail) mail. Therefore, his samples cannot be taken to represent communal linguistic norms. More than a century after Hugo Schuchardt’s seminal work on creole development, linguists have not been able to demonstrate the existence of an incipient pidgin that predated a creole. Incipient pidgins have proven harder to find than the Higgs boson, and linguist prospectors will apparently look in vain for them, because the hypothesis is not consistent with how learners naturally “acquire” another language. Unlike the baby learning their language, the adult or late L2 learner has already acquired the capacity to use one. This is precisely why interlanguages (Klein & Perdue 1992; Perdue 1995) are nothing close to Bickerton’s characterization of his “macaronic pidgin” construct. To wit, Plag (2008, 2009) invokes interlanguages rather than “macaronic pidgin” in his attempt to rescue Creole Exceptionalism.

As pointed out in Mufwene (2001) the speculation that creoles had evolved from antecedent pidgins was based on the assumption that cultural phenomena evolve from simpler to complex structures. This appears compatible with similar speculations on the evolution of human language from presumably animal-like vocalizations to articulate speech, although the ecologies of the emergence of creoles and of the phylogenetic emergence of languages are not comparable (see a survey of the relevant literature in Mufwene 2013a). The logic of this conservative approach, to which we return on page 13, led Bickerton (1990) to speculate that pidgins were “living fossils” of how language emerged in mankind, a position disputed in Mufwene (1991).¹⁰

Bickerton’s (1990) saltationist, or catastrophic, view according to which creoles emerged in one generation is in accordance with Berwick and Chomsky’s (2016) account of language evolution, which postulates that language emerged in *Homo sapiens* by a biological leap: “The generative procedure emerged suddenly as the result of a minor mutation” (p. 70), and must have changed little since, though its externalizations (i.e., community languages or E-languages) have changed over time under the pressure of different factors such as learning conditions or population structure. E-languages therefore are in a continuous state of flux, while the language organ remains constant. Under such premises, it would seem reasonable, at first sight, to assume that the language organ will generate its default range of grammars if the learners encounter no cues (Lightfoot 2006) in the inputs that would trigger alternative learning hypotheses. Since Bickerton (1990) assumed that macaronic pidgins were not linguistic (enough), they could not present the Creole child learner with any adequate linguistic cues. Thus, the Creole child learner would spontaneously generate new structures as dictated by specifications of the “language bioprogram” only. Implicitly or explicitly, this view is commonly assumed in generative approaches to emergence of new languages (e.g., sign languages). However, we submit that it is flawed.

Mufwene (1991), notes that unlike early *Homo sapiens*, who created language in ecologies without antecedent linguistic systems, Creole children, equipped with modern language-ready brains were surrounded by languages in contact and did not have to start from scratch. In fact, they were embedded

¹⁰ Progovac (2015, 2019) also maintains that some clause structural properties (e.g., small clauses) represent “living fossils.” While one may disagree with this view (e.g., Berwick & Chomsky 2016), a difference between Progovac’s claim and Bickerton’s is that the former considers linguistic living fossils to be present in the inputs that children are exposed to in various contemporary languages. As such they need not be considered a direct property of the faculty of language. For Bickerton, Creole children had access to no adequate linguistic input (contrary to the history of the relevant settlement colonies, summarized in Mufwene’s chapter!) and therefore had to produce creoles, which were an evolutionary step forward from the “the living fossils” that he claimed pidgins to be, based on his (1984) Language Bioprogram Hypothesis.

in ecologies comparable to those of other children, who also face competing and sometimes conflicting inputs from their social environments, where variation is the default, as suggested by the notion of IDIOLECT. Unfortunately, most authors advocating for the Pidgin-to-Creole cycle and the status of incipient pidgins as fossils of how primordial languages emerged 300,000–200,000 years ago do not engage with this discussion.

We think it is important for us to take some time to deconstruct the assumptions underlying Creole Exceptionalism, according to which creoles have emerged differently from other languages, owing putatively to a break in the transmission of the lexifier. Careful attention to documentary evidence and the history of colonization associated with the emergence of creoles and pidgins suggests otherwise. It supports the uniformitarian approach advocated by the contributions to this book.

The emergence of some sign languages (e.g., Senghas 1995; Kegl, Senghas, & Coppola 1999; Sandler, Aronoff, & Padden 2023) has often been compared to that of creoles. They evolved from the home signs that, for instance, individual pupils at the boarding school in Nicaragua had brought from home (which could be seen as comparable to rudimentary linguistic systems similar to the primordial stages of the phylogenetic emergence of language in *Homo sapiens*).¹¹ In the first place, the home signs are not at all comparable to pidgins, even if the Pidgin-to-Creole scenario were correct at all. As pointed out earlier, Creole children did not grow up in ecologies comparable to the boarding school for the Deaf children who really turned individual home signs into a full-fledged community language. The Deaf children at the boarding school had no communal pidgin to repair, unlike what has been claimed of Creole children by proponents of the Pidgin-to-Creole hypothesis. They were raised by speaking parents, who either learned signing or reproduced, while speaking, the home signs coined by the Deaf children. The comparison is therefore inaccurate. The boarding school offered the children the first opportunity to form a real Deaf community and to develop their own communal norms by competition and selection operating on the feature pool generated by the collection of individual home signs brought into contact as well as general human learning biases (Mufwene 2008; Aboh 2020). There is no reason to suggest that they were diverging from the linguistic conventions of a Deaf community, which had not existed before they left home.¹² Note that there is

¹¹ Mufwene (2013b) hypothesized that this phase involved naming members of the community, objects, and animals in the natural environment, etc. According to him, the elaboration of the lexicon drove the expansion of the phonetic inventories.

¹² In any case, the emergence of creoles and of pidgins is not homologous to this evolutionary phenomenon at, more specifically, the boarding school for the Deaf in Nicaragua. This would be comparable to the phylogenetic emergence in *Homo sapiens*, except that these modern children had the mental capacity of modern *Homo sapiens*, not that of early *Homo sapiens*, and grew up

also no reason to assume (as is sometimes the case in the literature) that the Deaf children had no “language” prior to the boarding school. Linguists might not be able to characterize their idiolects in terms of community sign language or E-language, but they certainly have an I-language. All these observations show that it is very exceptional to find a human child and, even more so, groups of children with no access to idiolects within their communities involving relevant cues for acquisition (i.e., the development of knowledge of an I-language underlying communication).

What is disturbing in discussions of creoles and pidgins in the late nineteenth century is that, as noted on page 4, the mental capacity of non-Europeans had been compared to that of children and their substrate languages considered as primitive and childish (Bertrand-Bocandé 1849; Baissac 1880; Vinson 1882; Adam 1883). Empirical evidence beyond the alleged structural simplicity of pidgins (and African languages for that matter) was needed to support this hypothesis.¹³ The specimens of putative “incipient pidgins” produced in Bickerton (1981, 1984) reveal variation and mixing of grammars described in detail by Roberts (2004). For instance, Japanese speakers’ attempts to speak English include postpositions, just like in Japanese. If there are any grammars that are monolithic and invariable (cf. Mufwene 1992; Labov 1998), these are the apparent violations that led Bickerton to characterize pidgins as “macaronic.” Bickerton also appears to have confused the interlanguages of the English learners in Hawaii, which varied from one speaker to another, with pidgin as a communal variety, in which variation is of the same kind that has interested variationist sociolinguists, viz., there are alternative ways in which the same speaker produces the same expression (e.g., full vs. contracted vs. zero copula in African American English) or of expressing the same idea (in which case the grammatical structure can be different, e.g., *I ain’t seen nobody* vs. *I haven’t seen nobody* vs. *I ain’t/haven’t seen anybody* vs. *I saw nobody*, also in the African American English).

in ecologies of other modern humans communicating linguistically in multimodal ways. What Supalla & Clark (2015: 182), for example, compare to “creolization” in the emergence of sign languages as communal varieties is the formation of conventionalized grammatical structures, which presupposes no antecedent pidgin. At a paper presented at the University of Chicago in 2015, Mufwene heard Ted Supalla reject the position that home signs stand to sign languages like pidgins to creoles, precisely for the reasons given earlier (contrary to Bickerton 1990). We return to some aspects of all this on pages 16ff.

¹³ Regarding the alleged grammatical simplicity of creoles, see McWhorter (2001). The fundamental question is whether it is only the morphosyntax and phonology that make a language and, therefore, whether the complexity of a language should be measured exclusively by how crowded the morphosyntactic and phonological spaces are. There are contradictions in the narrative of simplicity too, such as when Bakker (2009) reports that the phonetic inventories of creoles fall in the average among the world’s languages. For issues regarding this approach to complexity, see, e.g., Bisang (2009). Regarding whether creoles are less complex than other languages, see DeGraff (2001, 2009) and Aboh & Smith (2009).

In any case, Bickerton's account is consonant with Creole Exceptionalism, at variance with Alleyne's (1971) and Chaudenson's (1979) arguments that creoles were not outcomes of, respectively, foreigner talk to the enslaved populations (in the case of Haitian Creole) nor evolutions from pidgin ancestors (regarding French creoles). Chaudenson argued that they evolved by incremental structural divergence away from the lexifiers and closer approximations thereof in the small homesteads in which the non-European laborers lived intimately with the European colonists, although they were discriminated against. This position is not mutually exclusive with the fact that, through competition and selection, (some of) the substrate languages influenced the evolutionary trajectories of the emergent vernaculars (see Aboh 2015; Bao Zhiming 2015).

Creoles are not the only languages that have drifted away from their source languages under the influence of substrate languages. The Romance languages evolved in a similar fashion from the contact of Vulgar Latin and other languages (Celtic and non-Celtic), developing new grammars that are typologically alien to their lexifier, as is evident from, for instance, their rigid word order, extensive use of articles, and reduced nominal and verbal inflections, as well as the loss of nominal declension classes. This means that the Romance languages evolved by incremental structural divergence away from Vulgar Latin, under the increasing influence of the substrate and adstrate languages.

The same can be said of the development of English, whose change from the typical Continental Germanic OV structure to the North Germanic (or Scandinavian) VO structure is the result of the contact with Scandinavian languages (Emonds & Faarlund 2014) as well as of the interactions between successive populations of various learner's profiles, including L2 and L1 speakers. Such interactions typically create a learning space that increases the range of variation, which should not be misunderstood as the emergence of a broken language variety. The fact that the divergence from the lexifier or protolanguage is considered more extensive in the case of creoles than in the others should not matter. In fact, it is debatable whether the observation is even accurate. Mufwene (2015) shows that French may be considered structurally more divergent from Vulgar Latin than French creoles are from their nonstandard lexifiers. The late French linguist, lexicographer, and editor of the French Dictionary *Le Robert*, Alain Rey, reached the same conclusion about French:

It is a Latin-lexifier creole. Latin speciated into varieties which evolved each in its own way, in Hispania, Gaul, or in Italy, thus leading to a form of creolization. The Latin syntax has been "shaken" so much that almost nothing prevailed.¹⁴

¹⁴ C'est un créole issu du latin. Le latin s'est subdivisé en variantes qui ont évolué chacune dans leur sens, que ce soit en Hispanie, en Gaule ou en Italie, donnant ainsi lieu à une sorte de créolisation. La syntaxe a été tellement bousculée qu'il n'en reste presque rien. www.jeuneafrique.com/79623/archives-thematique/alain-rey/, accessed on September 22, 2023 (Enoch O. Aboh's translation).

Alain Rey further remarked that Latin itself evolved similarly to French and creoles, but it should not be construed (as is often the case in the literature) as a uniform language. On the other hand, it has often been claimed that French is so different from its lexifier because it is older than creoles and therefore went through several centuries of restructuring away from Latin. However, claims that language age, or duration of time, influence typological distance from the protolanguage are misleading. Senator Marcus Tullius Cicero used to complain, in the first century BC, that he had a hard time understanding the Latin spoken in the provinces of the Empire (Polomé 1983).

From a uniformitarian perspective, what matters is that the processes resulting in such divergences are of the same nature, subject to variation in the relevant contact ecologies, as explained on especially pages 5–7 in relation to geology and other domains of nature. These include not only the relevant population structures in which language shift occurs as well as typological differences among the languages in contact, but also genealogical connections among the languages in contact. Part of the agenda of the uniformitarianist research program is to explore further the nature of ecological factors that bear on language speciation and how variably they weigh in specific ecologies.

Uniformitarianists not only question exceptionalist accounts; they also compare the contact ecologies of the emergence of creoles with other cases of language contact involving language shift and the indigenization of the target language. Heeding Schuchardt (1882, 1884), we can also extend this uniformitarian account to the evolution of the European languages in Europe's exploitation colonies (e.g., Francophone and Anglophone countries in Africa and Asia). It is striking that data to support their indigenization starts in the post-Independence period rather than before.

A basic explanation is that during the colonial period the European languages were learned by small classes of colonial auxiliaries for the purpose of interfacing the majorities of the colonized populations not speaking the colonial languages with the European administrators, judges, health care providers, and senior officers of the military and of the police. This phase is to some extent comparable to that of homesteads in plantation settlement colonies, when no residential segregation was in place yet (though racial/ethnic discrimination already violated the human rights of the enslaved people) and regular interactions between Europeans and non-Europeans favored closer approximations of the lexifier.

Since Independence, wider access to schooling in colonial languages combined with limited access to their heritage speakers produced situations in which these new speakers of the colonial varieties used the European languages as their *lingua francas* of higher level of public administration and the judicial system, as well as in the white-collar sector of the economy, and often also to socialize across indigenous ethnolinguistic boundaries. In the latter context, there was more and more room for substrate influence, especially

since some of the speakers had limited schooling, often under conditions that left plenty to be desired, in addition to the fact that learners vary in their language learning skills (Mufwene 2025).

These contact ecologies, in which the Indigenous elite practiced scholastic varieties of the colonial and now official languages of their countries, are similar to those in plantation colonies in which the enslaved population communicated mostly among themselves and with the overseers, who spoke nonstandard varieties of the relevant European languages. Analyzing these situations in a parallel way prompts us to ask what distinguishes creoles, pidgins, and indigenized Englishes or African French varieties from each other. We realize that the evolutionary scenarios are more complex and, curiously, schooling does not prevent substrate influence, although it may reduce its significance. At the same time, population structure plays an important role in determining who interacts or socializes regularly and is likely to share features with whom. Uniformitarianism as a research program enables us to refine the hypothetical algebra-style restructuring equation and even to look into when some variable may weigh more heavily than others on the restructuring process. Assuming humans to react in similar ways to similar situations, although there is some variation, we can test whether the exceptionalist accounts that have been submitted since the late nineteenth century are accurate.

Although Hugo Schuchardt compared the emergence of creoles with that of the Romance languages, he nonetheless believed that creoles emerged from pidgins and even posited without proof that African American English was the outcome of decreolization (Schuchardt 1914). This is also an exceptionalist account compared to the documentary evidence showing that in fact both languages labelled as creoles and pidgins appear to have emerged by gradual divergence from their lexifiers and substrates (Mufwene 2020, this volume).

1.3 The Chapters

In Chapter 2, Salikoko Mufwene addresses the question of what genetic, or genealogical, linguistics can teach us about the speciation of new varieties, focusing on ecological factors that influence the development of creoles in settlement colonies during the seventeenth and eighteenth centuries. This was long before (expanded) pidgins emerged in the nineteenth century on the coast of West Africa and on the plantation island colonies of the Pacific, when Europe was colonizing these regions in the exploitation style. The author shows that the trade colonies preceding this colonial evolution did not produce pidgins, contrary to the received narrative in genetic creolistics. He also shows that, contrary to what has been suggested by the frozen idiom *pidgins and creoles*, the former are not the ancestors of the latter. The complementary

geographical distribution between the two kinds of contact varieties is as striking as the fact that creoles appear to have emerged earlier, thus corroborating with much more historical information the conclusions of Mufwene (2020). The socioeconomic, historical, cultural, and political factors which led to plantation and creole societies of the seventeenth and eighteenth centuries predate those that bear on exploitation colonies of the nineteenth century in which pidgins emerged. The two types of ecologies generated two different language regimes in which creoles displaced the substrate languages while pidgins did not; they served only as *lingua francas*.¹⁵ The situation in exploitation colonies (e.g., most of Sub-Saharan Africa) is different: the local English, the official language, cohabitates with the indigenous African languages along with the local expanded pidgin in Nigeria, Ghana, and Cameroon. In the latter case, the chapter corroborates Yakpo's (2009, 2017, also this volume) hypothesis that they are offshoots of Sierra Leone's Krio. Various pieces of evidence are adduced by the author to debunk the received myth since the late nineteenth century, according to which trade between European merchants and Indigenous rulers proceeded in broken forms of European languages, disparagingly labeled as "pidgins."

This conclusion has far-reaching implications for notions such as CREOLIZATION and PIDGINIZATION, which must be understood as resulting from encounters between languages in specific ecologies rather than as language-internal processes that produce specific types of language varieties, thus opposing, on the one hand, creoles with pidgins, and on the other, both of them with putatively "more natural" languages. As the chapter shows, consistent with the uniformitarian approach, the linguistic processes are the same ones that have applied also to language contact outcomes that have traditionally not been identified as creoles or pidgins. Thus, creolistics provides us with a window into how new vernaculars (e.g., current Romance languages) drifted away from their source languages and, for that matter, the latter from Latin.

Mufwene argues that linguistic drift or divergence can be understood in terms of what Chaudenson (2001) and subsequent works termed *basilectalization*, whereby successive waves of new learners cause earlier L2 approximations of the lexifier to diverge further away from the original target language. The contact scenarios that Mufwene describes, and the ways in which trade was conducted through brokers who could speak both the relevant European language and some indigenous languages, dispute the traditional claim that early contacts between Europeans and their Native trade partners were conducted in broken languages identified as (incipient) pidgins. As a matter of fact, in Guangzhou, China, Chinese Pidgin English emerged not in the expensive-commodity trade that

¹⁵ It is another question whether those that have become vernaculars are endangering the vitality of the indigenous languages of the ecologies in which they are spoken.

creolists have been interested in but rather in the parallel small commercial transactions in which the European merchants bought alcohol and food items from local providers and even patronized prostitution. These are specific cross-gender relations quite different from the long-durée, often marital, unions that Europeans formed with Native women along the coast of especially West Africa during which the partners learned each other's languages. These unions produced more go-betweens (identified as brokers by Jungbluth, Chapter 3 this volume), who did not speak pidgins. Mufwene also explains why no creole could have started with a pidgin, especially under the traditional assumption that the relevant contacts between the trading parties were sporadic.

Konstanze Jungbluth navigates us through the first hundred years of the Portuguese encounters with the western coast of Africa from the fifteenth to the sixteenth centuries (Chapter 3). She also discusses the practice of Portuguese in their continental trade colonies and the settlement ones on especially the Cape Verde Islands, which, according to historical archives, functioned as a dispersal point for other African colonies. She shows that, although Portuguese was used as the language of trade in forts such as Elmina, there is no evidence that the language ever pidginized. This disputes the long-held assumption in creolistics that the initial contacts between Europeans and non-Europeans systematically produced pidgins. An important reason is that the use of Portuguese was restricted to the brokers, also known in colonial history as intermediaries, middlemen, and go-betweens, who are also discussed in Mufwene's and Vigouroux's chapters. As Jungbluth shows, the Portuguese merchants typically stayed on the coast and it is the brokers, including the *lançados* and *tangomãos* (who had escaped the Reconquista and the Inquisition), who went to the interior, where trade was conducted in indigenous languages. The brokers also functioned as *línguas* ('interpreters'), thus the question for genetic creolistics is to explain how a corps of interpreters emerged in these contact settings.

The *lançados* and *tangomãos* learned the languages of the Indigenous rulers, who protected them from the Portuguese monarchy and laws, by immersion. In fact, in modern terms, they went native, formed unions with Native women, while their adult *Mulatto* children, who also acquired their fathers' languages natively, became an important part of the brokers' corps. Portuguese was then the only trade lingua franca, which would be adopted later by the Dutch, English, and French merchants until the late eighteenth century. The European merchants also spent months-long periods of idling time on the coast, while waiting for the trade commodities to accumulate to large quantities or for favorable winds to sail safely back to Europe.¹⁶ These

¹⁶ We learn from Domingues da Silva (2017) that the enslaved Africans were shipped to the Americas through freighters, thus different ships from those that connected Africa to Europe. It appears that the whole economic system then was both capitalist and global, operating in

stays could last for six months, a year, or more in some cases, and afforded the merchants plenty of opportunities to learn the indigenous languages at a time when the Afro-European relations were egalitarian, before the exploitation colonization of the continent began in the middle of the nineteenth century. By the seventeenth century, the coastal fortifications were also quite cosmopolitan contact settings in which various Europeans speaking different languages and Africans interacted with each other in diverse languages, often without interpreters. Professional interpreters were needed particularly for expensive-commodity transactions.

One must thus note the absence of any modern Portuguese pidgin on the African coast, though creoles emerged on all the island settlement colonies. Jungbluth shows that contact between different populations and “brokers on the move” led to the emergence of new Portuguese varieties in the Cape Verdean archipelago and in Rios de Guiné in a similar way as Portuguese itself emerged from the contact of displaced populations within the Roman Empire. She uses the term *Kust Portugees Sprak* (‘Coastal Portuguese language’) (from Tilleman 1697/1994) for the different but related varieties of Portuguese spoken on the coast and islands during that first century when the Portuguese were the only European traders with coastal Africa and the off-shore islands. Some of these varieties have evolved into what linguists refer to as creoles, while others have simply died out.

This chapter bolsters the linguistic application of the Uniformitarian Principle in showing why the early contacts between Europeans and non-Europeans along the coast of Africa and all the way to East Asia until the seventeenth century did not produce Portuguese pidgins or any based on non-European languages. Jungbluth makes it obvious that trade in the relevant contact settings did not proceed in the ways that creolists have traditionally imagined since the late nineteenth-century philologists. Thus, we must ask when the so-called Asian Portuguese creoles emerged and why, in the first place, they are identified by linguists as creoles, against the assumptions of their speakers. After all, these new Asian Portuguese vernaculars did not emerge on plantations but rather under conditions similar to those under which the Romance languages emerged, in their homelands. They are unlike modern expanded pidgins because they started as vernaculars, admittedly like modern day creoles, and did not emerge in plantation exploitation colonies either. From an evolutionary perspective, we note family resemblance among all these offspring varieties but also setting-specific differences that question the traditional distinction between creoles and non-creole language varieties.

more or less the same way as today, with different companies specializing in different kinds of activities. The freighters were also insured for losses of commodities for which they were responsible.

The role of the go-betweens is also important to consider when we evaluate claims about “le Français Tirailleur” (FT) critically. In her chapter (Chapter 4), Cécile B. Vigouroux raises issues about its existence beyond being fabricated by French colonial officers who, based on their racial prejudices, assumed that it would be simple enough for the presumably mentally inferior African infantrymen to learn. Based on historical evidence, the chapter demonstrates meticulously that there was no room for a pidgin to emerge out of the contact between the French colonizers and the Africans. Brokers and go-betweens have always been an important part of negotiations and community interactions in the pre-colonial era as well as in the nineteenth century, when the French engaged in military conquests to establish exploitation colonies in Sub-Saharan Africa. During the pre-colonial period, when encounters between the French and Sub-Saharan African communities mainly revolved around trade, a close look into social interactions (e.g., who interacted with whom on what occasion; what was traded and how; what linguistic skills were needed; what linguistic encounters happened; and what possible varieties ensued) provides valuable insights into why no French pidgin emerged during this period.

According to the author, FT was fabricated by the French colonial military officers, and there are apparently many reasons why the project did not take off. Accordingly, the unnaturally constructed and hardly used FT could not have been the ancestor of either a French pidgin or French creole. Neither of these emerged in continental Francophone Africa during the exploitation colonial period. Compared to pidgins described in the literature, FT appears unnatural, reminding one of us the editors of how meanings of utterances produced in a natural language were broken down into minimal meaningful components in Generative Semantics in the late 1960s and the 1970s. The expressions would slow down speech to a point where nobody would want to use FT. If the French colonial officers and Delafosse (1904) thought this is how West African languages are structured, their ignorance of the latter and of L2 approximations of French by such African learners is made more obvious by constructions typically attributed to FT. The efficiency of how commands are transmitted in the army would have been disrupted by this means of communication.

The relevant population structure, in which the infantrymen and their families lived in the Natives’ neighborhoods and communicated with the latter and among themselves in the local or their ethnic languages must have prevented the artificial language variety from taking off. Vigouroux’s detailed analysis of the history and structures of FT makes a convincing case against counting the artificially fabricated variety as a pidgin that allegedly was spoken by African infantrymen in the French colonial army (and their officers?). The success of the myth about its use in the French colonial army was fueled typically by the metropolitan French’s appetite for stories showing how

linguistically incompetent Africans were assumed to be in their approximations of the “sophisticated” French language. This chapter also teaches students of linguistics interested in the emergence of new vernaculars to critically evaluate claims about “broken languages” by situating them in the historical socioeconomic and other cultural contexts where they were made, and by scrutinizing the role of their authors in these societies.

We also learn from Chapters 2–4 the significance of the ecological factors such as sociopolitical and economic organization in language speciation. In the context of the uniformitarian approach advocated in this volume, an interesting and necessary comparison to make is between, on the one hand, creoles and pidgins and, on the other, other varieties that have been analogized to them or simply labeled after them. This is the case of Jewish languages discussed in Ilil Baum’s chapter (Chapter 5). The term *Jewish languages* here refers to Yiddish, Judeo-Spanish, and Jewish ethnolects or regiolects of other languages spoken where members of the Jewish Diaspora have lived (e.g., Judeo-Arabic in Muslim countries).

Baum compares the evolution of Caribbean creoles with that of Jewish languages, especially Judeo-Spanish, as outcomes of language contact, using the ecological approach developed in especially Mufwene (2001). Well aware that the contact ecologies were not identical – viz., plantations for the former vs. diaspora communities for the latter – she assesses the applicability of the ecological approach and the Founder Principle to both kinds of vernaculars. Important ecological differences include the fact that Diasporic Jews were generally minorities in the host countries, moved several times across countries, and thus were plurilingual. This makes the discussion of stratal influence on the main lexifier more complex when it comes to periodization and the factors influencing selection from among competing forms and structures. Nevertheless, racial discrimination and residential segregation remain common ecological factors between creoles and Jewish languages that favored the divergence of the new vernaculars from their lexifiers. The fact that Judeo-Spanish appears to have diverged more from Castilian after the expulsion of the Jews from Iberia underscores the significant role of spatial segregation (with distances being smaller in the case of creoles) in influencing system divergence (see also Bornes-Varol & Szulmajster-Celnikier 2022). Baum demonstrates so efficiently how invoking Uniformitarianism as a research program helps explain adequately not only similarities in the evolution of different languages but also why the outcomes themselves remain different, beyond what is predictable from the systems of the languages in contact. This conclusion also applies to creoles themselves, whose structures (on which creolists have focused the most) are also different, despite their regional similarities, for instance, between the Atlantic and Pacific varieties.

Noteworthy in Baum's chapter is likewise the fact that, unlike creoles, some of the Jewish languages were written and some texts are actually in Hebrew script. This was the case among the Jews in Palestine, Syria, Egypt, Babylon and, later, Iraq, the Maghreb, and Muslim Spain. Baum writes, "The Jews of Al-Andalus wrote and copied prose in Judeo-Arabic on biblical exegesis, Hebrew grammar, and Jewish law, ethics, logic, philosophy, medicine." The discussion of Judeo-Castilian and examples of Castilian-Catalan bilingualism involving various types of language mixing among medieval Iberian Jews shed further light on different evolutionary paths that can result from contact situations where other factors such as language conservatism, literacy, writing technology, community network, and religion matter. Scrutinizing the emergence of new varieties within these Jewish populations gives us yet another opportunity to evaluate the uniformitarian approach and to measure the ecological factors which come into play during language diversification. These factors are rarely investigated in creolistics or in the language contact literature. Yet, an important takeaway from this chapter is the role of education and the legal system governing it. This chapter makes it necessary to reiterate that the Uniformitarian Principle is not about uniformity of outcomes, which are subject to the specificities of the varying ecologies, but about the uniformity of the processes that apply.

Sandro Sessarego's chapter on Afro-Veracruz Spanish (Chapter 6) explores what can be learned from the specific contact ecology in Veracruz, Mexico regarding the sparsity of Spanish creoles. A major debate in creolistics is why there are so few Spanish creoles comparable with other creoles that emerged in colonial plantation societies of the seventeenth and eighteenth centuries, such as, Dutch Creoles (e.g., Berbice Dutch, Virgin Island Dutch Creole), Portuguese Creoles (e.g., Cabo Verdean Creole, Guinea-Bissau Creole, Principense), French Creoles (e.g., Haitian Creole, Mauritian, Martiniquais), English Creoles (e.g., Jamaican, Krio, Saramaccan). While it is relatively easy to expand these lists of creoles lexified by especially English, French, and Portuguese, the same does not hold of Spanish around the Atlantic for which one is soon stuck with Palenquero (spoken in the small village of San Basilio de Palenque, Colombia), and maybe Papiamentu, which actually was originally lexified by the Portuguese spoken by Sephardic Jews expelled from Brazil who relocated to Aruba, Bonaire, and Curaçao. The language is claimed to have been only heavily influenced by the Spanish spoken in especially Venezuela. Even Cuba and the Dominican Republic, which engaged heavily in sugarcane cultivation in the nineteenth century, have produced no Spanish creole.

If one admits strong sociodemographic, political, economic, and cultural parallels between Hispanic settlement colonies and those of other Europeans, then the question arises of what ecological factors account for the difference in

outcomes. This debate has been at the heart of creolistics for decades because it bears directly on the issue of the Pidgin-to-Creole evolutionary trajectory and whether the fact that the Spaniards did not engage in trade colonization in Africa is part of the explanation, as claimed by some authors (e.g., McWhorter 2000) who hypothesize that the pidgins that putatively evolved into creoles in the Caribbean and in the Americas first developed in Africa (contrary to the historical facts presented by Mufwene, Jungbluth, and Vigouroux in this volume). Another explanation that has floated around is decreolization, for which there is no documented evidence.¹⁷

Sessarego's chapter takes a close look at Afro-Veracruz Spanish (AVS), a variety spoken in some rural villages across the State of Veracruz, Mexico, by the descendants of enslaved Africans forcibly brought there during the colonial period. If we assume that the conditions of the formation of this variety are similar to those of creole formation (deportation, enslavement, racism, a large proportion of L2 learners who were speakers of different languages), then AVS presents us with a testbed for both exceptionalist and uniformitarian approaches. The chapter not only demonstrates that exceptionalist views do not hold but also provides a strong case for the uniformitarian perspective adopted by the contributors to this volume. Indeed, as Sessarego's detailed linguistic and sociohistorical analysis of AVS shows, the language variety exhibits common morphosyntactic features attested in L2 varieties of Spanish, including those produced by advanced learners. Accordingly, AVS displays L2 approximations that are close to the Spanish spoken by its colonial heritage speakers. One would have to produce evidence of the putatively prior pidginization and creolization to argue that the present state of the language variety is the outcome of some decreolization process.

Our conclusion is supported by Sessarego's sociohistorical analysis based on population factors. The author shows that the number of newly imported Africans never drastically changed the population structure, with most of the Spaniard colonists and the Africans, as well as the Criollos and Mestizos concentrated in the emergent urban centers, while the few Africans in rural areas are minorities. Unlike in especially English and French settlement colonies, there was no (pronounced) residential segregation, despite racial discrimination. From a socioeconomic perspective, most of the settlements (i.e., *haciendas*) were relatively small (with some forty enslaved Africans) compared to hundreds of enslaved Africans in large Dutch, English, and French plantations in the Caribbean and circum-Caribbean region. Such small economic establishments also impacted family structure which was mainly nuclear, thus favoring racial mixing, Christian education, and literacy. All

¹⁷ See Mufwene's chapter and references cited therein about the inadequacies of the decreolization hypothesis.

these aspects contributed to affording learners ample experience in the local Spanish vernacular, thus they learned it as “faithfully” as normal language learning can ensure the “reproduction” of the target language, unlike in, for instance, the Caribbean, where creoles emerged in highly segregated contact ecologies. Consequently, AVS never pidginized nor creolized, diverging insignificantly from the other Spanish varieties spoken in Mexico.¹⁸

Don E. Walicek’s chapter on Anguillan (Chapter 7), an under-documented variety spoken on the island of Anguilla, in the Caribbean, furthers the ecological perspective consistent with Uniformitarianism. Like other varieties that emerged in settlement colonies, Anguillan has diverged structurally from its English lexifier, which makes it relevant in the discussion of creoles, and more generally, the emergence of new language varieties. The chapter takes a critical approach to Labov’s engagement with the Uniformitarian Principle, arguing for a broader perspective on ecological factors that are relevant in language change. As the author argues, theories of the genesis of creoles typically focus on plantation colonies and thus pay negligible attention to less familiar contexts such as those of emergence of Anguillan or AVS (discussed by Sandro Sessarego). Yet, these varieties show some correlation between cross-colony variation in the balance of power between the relevant ecological factors and the variation observable among the structures of the emergent colonial varieties, including those from the same lexifier. This chapter offers a detailed sociohistorical analysis that periodizes, in an informative way, different phases in the emergence of Anguillan, including three overlapping periods: a homestead phase (1650 to 1720), a period of cohesion and stability (1720 to 1800), and a period of legal emancipation (1800 to 1850).

Based on archival research and a careful analysis of sociohistorical facts from the perspective of Communication Accommodation Theory, Walicek argues that these three periods correspond to three types of adjustment: convergence, divergence, and maintenance. The homestead period was precarious and subject to economic instability. The linguistically diverse society was racially divided, rigidly stratified, and needed to compromise. The period of cohesion and stability benefitted from the convergence, which favored population growth through locally born children. This in turn led to the emergence of a local dominant identity concurrently with the emergence of Anguillan as the dominant vernacular, despite clear social discrimination between White colonists and the enslaved population. The period of cohesion thus saw the

¹⁸ These factors are similar to those that prevented the emergence of a creole in Virginia, where, as explained by Mufwene in his chapter (this volume), residential segregation was instituted over a century later than in coastal South Carolina. The latter reached the Black majority early, whereas the former never did. This is striking, especially since Virginia had a total number of Africans superior to each of the other American Southern colonies. See also Mufwene (1999).

emergence of a new culture, the first phase of emancipations which led to further restructuring of the society as a whole, including the Black community.

The period of legal emancipation resulted in the entrenchment of the dynamics that were in place already during the period of cohesion and enabled broader access to education and therefore an increase of literacy rates within the community. Likewise, better access to education meant increases of wages or better job opportunities, which in turn contributed to improving social as well as interethnic relations. Language-wise, these three periods contributed to shaping Anguillan as the dominant English-based vernacular of the island and the mother tongue of most Anguillans. The language variety shares some structural features with Caribbean English creoles but also differs from them in some important respects that bring it closer to other varieties (not labelled as 'creoles') in the region.

These (dis)similarities are what one would expect as part of normal natural language evolution in a uniformitarian approach, unlike in exceptionalist accounts that expect the same "creole features" to be attested in every prototypical creole and has no plausible explanation for their absence in non-prototypical ones. As pointed out by Mufwene (1994), note that the Decreolization Hypothesis is predicated on the unjustified assumption that all Africans on the plantations spoke basilectal creole when these new vernaculars emerged and contact with non-African speakers of the colonists' language led them to shed off some basilectal or "creole" features through what has been called "decreolization." At the same time, the Decreolization Hypothesis assumes that all creole speakers, regardless of their socioeconomic networks, were exposed to the exact same stable uniform local or regional model and developed identical grammatical systems. This is contrary to Alleyne's (1980) accurate observation that socially and geographically creole continua have existed since their formation, just as local standards in the colonies have emerged gradually and have been subject to variation across and within individuals, as well as across colonies (e.g., French in the Caribbean vs. in the Indian Ocean).

In her chapter (Chapter 8), Marlyse Baptista adopts a strong uniformitarian perspective to argue that (i) there is no creole prototype based on a particular set of linguistic features, and (ii) there are no restructuring processes exclusive to so-called creole languages. She demonstrates that the restructuring processes that led to creoles drifting away from their source languages and the relevant substrate languages, are the same as those operating in language change in general, and the emergence of new varieties in particular.

Accordingly, the cognitive processes underlying certain linguistic patterns are the same across linguistic ecologies. Even though individual speaker-learners acquire and use nonidentical languages in different linguistic ecologies, they still follow similar cognitive processes or learning hypotheses.

A case in point is congruence whereby similarity in form and function between grammatical elements of different languages may lead learners to formulate converging hypotheses in the cooption of a specific form they share for similar functions. As the chapter shows clearly, creole languages are no exception with regard to the outcomes of grammatical processes such as loss of inflections and preference for isolating morphosyntax typically associated with them. To wit, the Romance languages reflect such changes, as does Modern English compared to Old English or West Germanic languages such as Dutch and German. Other processes typically associated with creoles involve transfer and feature recombination, but these too have been shown in various comparative studies to be operative in multilingual settings where speaker-learners engage in creative language use.

Baptista's chapter reminds linguists that human beings everywhere have a genius for language and that this capacity is extremely resilient no matter how adverse the learning situation may be (e.g., deportation, enslavement, deprivation, and psychological trauma). The chapter therefore argues for a strong anti-exceptionalist and uniformitarian view in which processes that drive language change, including hybridization, which she calls "creolization," operate in all natural human languages. That is, all languages undergo hybridization, by virtue of incorporating features from other languages they have come in contact with, and this is ubiquitous in the histories of all modern languages. This way, Baptista invites us to deconstruct ideological misconceptions about the creole prototype, sometimes camouflaged in claims about empiricism (see Meakins 2022, 2023 for an informative critique). Likewise, the chapter provides the reader with the necessary analytic tools to critically evaluate common linguistic labels such as "mixed language" (cf. Meakins & Stewart 2022) and their systematic opposition to languages that are presumably unmixed. The question we are asked here, following Hjelmslev (1938), is whether there is any language in current human history that is not mixed (see also Aboh 2020; Mufwene 2023).

The question of language contact and hybridization is directly related to the topic of the diffusion of linguistic features across languages in a "language/linguistic area". The diffusion further raises an issue about genetic relations that have been claimed among some languages. As asked long ago by Meillet (1900), do languages share some linguistic features due to genetic relations (e.g., a shared ancestor) or to areal diffusion (e.g., language contact)? We add: what happens when both inheritance and contact operate simultaneously? How can we tease their effects apart? These questions are significant in the context of creole languages, which have been attributed similar features often with no detailed discussion of whether they are the outcomes of genetic inheritance or of areal diffusion. This question arises, for instance, regarding the emergence of Anguillan. In his chapter, Don Walicek alludes to other emergent English

varieties brought from neighboring English colonies; they helped shape some of the features considered as Anguillan today. Understanding these aspects of change will shed light not just on the emergence of creole languages but also on how linguistic features, whether from genetically different or related languages, are shaped by their language ecosystems.

Kofi Yakpo (Chapter 9) takes on this task by focusing on the copula systems of three West African Pidgins (WAP): Pichi (Equatorial Guinea), Cameroon Pidgin, and Ghanaian Pidgin. The starting point of his chapter is the Founder Principle as invoked in Mufwene (2001) where it is argued that structural features of creoles (or for that matter any communal language) are largely predetermined by structural properties of the languages practiced by the founder populations. This would mean that the vernaculars of the founders of a colony will exert a “deeper” impact on the communal language than those of subsequent populations, unless this effect is prevented by other overriding demographic and socioeconomic factors. The term *deeper* should be understood as resilient linguistic features that will be “transmitted” to subsequent populations of speakers-learners even though these later populations may contribute changes with much broader effects. The Founder Principle therefore does not imply that all the grammatical properties of the language come from the founders. Rather, some specific building blocks introduced by these populations will tend to be retained through successive generations. It offers an interesting perspective into evaluating genetic relations (viz., between vernaculars that point to the same founder population) and areal diffusion (viz., cases where the relevant languages have come in contact with each other and have exchanged some features, as is made evident by “linguistic convergence”). By the same logic, one can also evaluate the strength of what Yakpo calls the “founder signal.” Copula structures are part of basic predication and therefore represent a fundamental building block of linguistic systems that may be indicative of effects of the Founder Principle.

In this very first detailed comparative study of the copula systems in WAP, Yakpo shows that these creoles have a common ancestor, Krio, of which Yoruba (Benue-Kwa) was a main substrate language. Because the WAP varieties have evolved in differing linguistic ecosystems (involving English, French, or Spanish as official languages, and Fang or Northwest Bantu for Pichi; Grass field Bantu for Cameroon Pidgin; Kwa and Gur for Ghanaian Pidgin), they display the “founder signal” to various degrees and not necessarily in the same way as the “areal signal” from the African adstrate languages. The chapter demonstrates how different demographic, socioeconomic, and cultural factors (e.g., who uses the language, whether it functions as a lingua franca, and whether it has economic power) influence the intersection of genetic relations and areal diffusion among the new offspring of Krio. The chapter shows how related linguistic systems may diverge depending on the

ecologies they adapt to, without the need to evoke a break in transmission. In all the cases reviewed, genetic transmission, areal diffusion, and adaptation to a specific ecology all contributed to shaping the copula systems in various ways. By systematically comparing the WAP varieties to their lexifier and most relevant adstrates, the chapter also offers new insights into the areal typology of copula systems and nonverbal predication in various West African languages.

Chi Dat Lam (Chapter 10) discusses another apparent genetic relation that is mostly characteristic of French-based creoles: determiner-noun fusion (DNF). The phenomenon arises when a noun is fused together typically with its definite (prenominal) determiner and the composite word is interpreted as the noun in its citation form. Consider, for instance, Haitian Creole *lapli* ‘rain’ derived from the French *la pluie* consisting of the feminine definite determiner *la* ‘the’ and the noun *pluie* ‘rain’. DNF sometimes generates oppositions such as *lapolis* ‘police station/institution’ or ‘the entity in general’ versus *polis* which commonly denotes the police agent. Aside from such subtleties, the phenomenon is made more complex by the fact that it does not target all determiners (e.g., indefinites are less recruited), and not all nouns are affected.

These sets of intricate features have prompted linguists working on the emergence of creoles, and French-based creoles in particular, to propose various developmental scenarios including substrate transfer from the noun class system and morphophonological patterns of the Bantu languages, as well as patterns of acquisition by learners of French as a second language. While suggestions in previous scholarship can account for some of the patterns observed in the relevant creoles, this chapter shows that they all fail to explain why DNF, though robustly found in French varieties, is not limited to this language family only. For instance, DNF has been reported in some Portuguese-based creoles and the phenomenon can be argued to occur as well in Spanish and Portuguese retention of Arabic words in which the determiner *a-* or *al-* is amalgamated with the noun, such as in *azúcar* (Spanish), *açúcar* (Portuguese) from Arabic *al sukkar* ‘sugar’.

Such examples indicate that the Bantu substrate hypothesis cannot extend to all the relevant cases. Likewise, DNF is not evenly distributed across French-based creoles in the Caribbean and in the Indian Ocean. Mauritian Creole exhibits DNF most robustly than Réunionnais and Haitian Creole. All these facts indicate that DNF is a multifaceted phenomenon that arguably results from an interaction between different factors such as learner’s profile (e.g., degree of substrate transfer), learning context (e.g., local French variety that learners were exposed to), word distributive frequencies, morphophonological properties (e.g., syllable structure, vowel harmony), syntactic distribution (e.g., determiner-noun collocations), and semantic classes.

Lam takes up the challenge of looking into some of these factors, building on Henri & Bonami's (2018) earlier findings. In addition to supporting their analysis of DNF as a multifaceted phenomenon, he further integrates these results in a theory of acquisition based on statistical learning. In this regard, the chapter tests Henri & Bonami's (2018) results in Haitian Creole, a language that, as noted on the previous page, displays far fewer DNF instances than Mauritian Creole. This study allows the author to investigate the role of other factors such as transitional probabilities, which have been shown in the literature to play a role in the acquisition of word segmentation. It is hypothesized that backward transitional probabilities of French determiner-noun collocations, the initial segment of the noun, its syllable structure, grammatical gender, gross frequency, and collocational frequency, all interact to predict DNF patterns in Haitian Creole. Even though the chapter used Haitian Creole as a testbed for the proposed set of hypotheses, the rationale extends to the occurrence of DNF generally, which is also attested in some French borrowings in some Bantu languages of the Democratic Republic of the Congo. The take-home message is that a uniformitarian approach that factors in the general human language learning capacity and the linguistic ecology in which this capacity is deployed suffices to explain some of the patterns we find in natural languages, regardless of whether they are identified as creoles or not.

In their chapter (Chapter 11), Esmeralda Vailati Negrão & Evani Viotti focus on the development of Brazilian Portuguese, a language that has not been often discussed in the language contact literature, though some have tentatively characterized its nonstandard variety, Popular Brazilian Portuguese, as a semi-creole. Others have disputed this position, arguing that its perceived peculiarities (in comparison with European Portuguese) can be traced to dialects of European Portuguese spoken by some of the colonists in the sixteenth century. Like Afro-Veracruz Spanish, discussed by Sandro Sessarego (this volume), Brazilian Portuguese is a challenge to exceptionalist theories of language change. Indeed, Brazil is a nation forged by the contact and complex socioeconomic, political, ethnic, cultural, and linguistic factors that influenced Portuguese colonial ventures in South America, aside from Portugal's investment in trade colonies along the coasts of Africa and Asia from the fifteenth to the eighteenth centuries. These interactions involving multilingualism, language contact between Portuguese, West and Central African languages, as well as Native Brazilian languages, the interethnic mixing typical of plantation societies, the population structure of such societies (e.g., disproportion between enslaved population and colonists), and diffused racism would lead any adept of exceptionalism to predict the emergence of a creole. The issue is made thornier because Brazil engaged in large-scale sugarcane cultivation a century before the Caribbean European settlement colonies. Yet, there is no evidence that a Portuguese creole ever formed

throughout the colonial period, which led Holm (2004) to identify Popular Brazilian Portuguese as a semi-creole. The language displays specific morpho-phonological and morphosyntactic properties that distinguish it from European Portuguese, but it does not involve the features that creole exceptionalists consider as prototypical of creoles.

Negrão & Viotti resolve this apparent paradox by adopting the uniformitarian approach and Mufwene's (2001) feature pool model, which suggests linguistic hybridization is the norm (see also Aboh 2015, 2020 and Mufwene 2023), and the selection operating on variation between competing features to explain the divergence of Brazilian Portuguese from its European lexifier. The authors argue that factors such as population structure, phonological salience, frequency, and congruence play an important role in explaining how close similarities between some syntactic structures of the Bantu languages and those of Portuguese favored the selection of some variants of European Portuguese structures into Brazilian Portuguese. Their analysis focuses on two distinct periods in Brazil's history: sugarcane cultivation on the eastern coast (including present-day states of Pernambuco and Bahia), the enslavement of Native Americans, and animal husbandry in the south (in the State of São Paulo) from around the middle of the sixteenth throughout the seventeenth centuries, as opposed to gold mining economy in the states of Minas Gerais, Goiás, and Mato Grosso during the late seventeenth and throughout the eighteenth centuries. Sugarcane plantation and gold mining require different kinds of labor organization, which impacted the Brazil colony differently during these two periods.

According to the authors, these periods generated two "different macro-ecologies of language practice that are central to understanding the consolidation of Brazilian Portuguese as a new language variety." This perspective sheds further light on the type of language contacts that occurred during these periods, the specific non-European populations that interacted with the Portuguese, and the languages they brought with them, in particular those of the Bantu and Gbe families, as well as the Native Brazilian languages of the Tupí-Guaraní family. Focused on the grammatical properties of the languages in contact within the respective ecologies, their detailed syntactic analysis of the *sentential subject position* and the *absolute constructions* in Brazilian Portuguese leads them to conclude that the grammatical peculiarities of Brazilian Portuguese emerged from a recombination of linguistic features selected from the languages in the mix. Portuguese alone does not tell the full story. For example, the preference of pronoun retention in the subject position, the high frequency of resumptive pronouns in topicalized constructions, and the fact that the syntactic subject may have a locative or beneficiary function show influence from outside heritage Portuguese. This shows that the Bantu and Gbe languages influenced the selection of these features into Brazilian Portuguese.

The chapter is yet another demonstration of how useful Uniformitarianism is as a research program: the same processes apply even in the case of language varieties that creolists would not call creoles. The authors also show that ultimately the triggers of such evolutions are the changes in economic practices and the new, mixed population structures they engendered. The latter permitted regular interactions between Europeans and non-Europeans in ways that facilitated the spread of the originally xenolectal features within the overall new, composite Brazilian population.

Exceptionalist approaches to creoles and to other so-called “contact languages” logically lead some authors to propose developmental scenarios specific to these languages, such as “accelerated grammaticalization” and “contact-induced grammaticalization.” In the first case, the assumption of “acceleration” in the process of developing a new grammatical feature seemingly provided linguists with a solution for the embarrassing paradox that there is an established tradition describing grammaticalization as a slow and long process. For instance, it has often been repeated that it took several centuries for the Latin distal demonstrative *ille* to evolve into French article *le/la*, but creoles run against the natural or normal pattern because they developed the bulk of their grammatical features in less than fifty years. The invocation of “contact-induced” grammaticalization apparently provided a solution to the presumably faster speed with which changes occurred in the emergence of creoles, invoking language contact as the trigger of the accelerated change. Under this traditional view on grammaticalization, creoles are exceptional not only in the way they came into being (i.e., break in transmission and intensive contact) but also in allowing some presumed universal linguistic processes, such as grammaticalization, to run “faster.” However, the assumption that the putative “normal” transmission and “slow” internally motivated grammaticalization in non-creole languages has not been proved. This view reflects the simple fact that traditional historical linguistics did not factor in population movements and language or dialect contact; that is, the cumulative effects of contact between different idiolects within the population as the trigger of all linguistic change. How can one forget that, for instance, the Romance languages are outcomes of language contact, and the latter did not end with the early stages of their emergence?

Enoch O. Aboh shows in Chapter 12 that these approaches all perpetuate the traditional purist assumption that normal language transmission leads to natural language change arguably driven by internally motivated grammaticalization, while abnormal language transmission leads to creolization involving unnatural, externally motivated, and, more specifically, contact-induced changes. He further shows that these views of grammaticalization fail to distinguish properties of language change at the individual level (i.e., the moment a speaker/signer creates a new form) from the spread of some

individual-based changes within the population that the speaker/signer shares the communal language with. Since creole languages develop the bulk of their grammatical properties in a very short time (approximately fifty years) they show us that grammatical properties do not mature over centuries in individuals' mental grammars of successive and different populations. A uniformitarian approach to the emergence of grammars in creoles therefore forces us to revisit theories of grammaticalization in presumably "old(er)" languages. As he sees it, what linguists call "grammaticalization" applies to when the innovated linguistic feature/pattern (assumed to be instantaneous in individual minds) has spread within the relevant population. For him, language change involves three overlapping factors: (i) the feature pool that learners are exposed to, which contains variants contributed by different speakers/signers in *contact* with each other and which is subject to a process of competition and selection; (ii) the initial feature recombination at the individual speaker's/signer's level, reflecting their innate cognitive capacity to select specific linguistic features from the feature pool and to recombine them in a new way, thus producing a new variant; and (iii) the spread of the innovation, in this case the initial step of *grammaticalization*, the speed of which may vary under the pressure of specific ecological factors such as usefulness of the innovation to the population, communicative gains, social benefits, and learners' profiles within a specific socioeconomic structure. The universality of the cognitive constraints is illustrated through examples from different languages in which they remain uniform.

Aboh's view is based on his work on *universal multilingualism*, which can be posited from the assumption that every idiolect is a kind of different language, though idiolects of the same communal language are not assumed to differ much from each other. According to this assumption, *contact* among the different idiolects within the community is the cornerstone of acquisition and change. It is ubiquitous during natural language acquisition, and as such it plays an important role in the emergence of the linguistic patterns that individuals produce and accounts for how they spread. Since language change is *always* the result of contact at the level of idiolects, the notion of "contact-induced change" is a tautology, because even at the level of different languages, contact takes place through individuals interacting with each other. Thus, the claim of "accelerated grammaticalization" in the case of creoles loses its meaning, because, as explained by Mufwene (2001), all changes at the population level spread through these interactions and this occurs gradually regardless of whether they take less, or more, time. Because creoles emerged recently in contact ecologies (at the population level) on which we have ample information compared to those on which traditional historical and genetic linguistics has focused, they suggest how more adequately we can explain, rather than just describe, changes that occurred earlier even in their lexifiers.

The chapter turns into a moot point the longstanding debate among creolists over whether creoles emerged abruptly or gradually.

To close, we are aware that the Uniformitarian Principle has been controversial, and often also misinterpreted, since its conception, in geology, in the nineteenth century. In adopting it as a research approach to language speciation, we have clarified that the uniformity of processes, subject to whims of specific ecologies, does not entail uniformity of outcomes. This has never been the case in geology nor in language, let alone for creoles and pidgins themselves. We like the Uniformitarian Principle for the ways in which it prompts students of language evolution to explain why the latter has always been differential, despite the similarities that are observable. We present diverse facts that show that the across-the-board explanations that creole exceptionalists have submitted are unwarranted. Both creoles and pidgins have evolved similarly to other languages, undergoing similar restructuring processes subject to the specificities of language contact as the actuators of changes.

The contributors to this book have endeavored to explain the success of the Uniformitarian Principle from different perspectives, sociohistorical and theoretical, and in some cases in languages that are not creoles but owe their emergence to the contact of communal languages. We hope that the reader will find, in the chapters, ample food for thought, especially an invitation not to exceptionalize the emergence of creoles a priori but rather to use what we learn about them from an ecological perspective to revisit cases of language evolution regarding which we thought we had really understood how they happened. As we said at the beginning of this introduction chapter, the uniformitarian approach opens a two-way street in which the present may shed light on the past and vice versa, making it possible for us to understand how language evolution works, albeit differentially, as has always been evident to us. We thus make it possible for creolists to address new questions arising from the dialog that we hope to foster between knowledge of the past and that of the present or near past, focused as much on explanations as on descriptions. Ultimately, general linguistics will benefit more from the study of creoles and pidgins.

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