

POPULATION MOVEMENTS AND CONTACTS IN LANGUAGE EVOLUTION¹

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1. Introduction

Publications such as Thomason & Kaufman (1988) and Thomason (2001, 2002) have perpetuated, without fundamental support, the distinction between internally- and externally-motivated language changes. They suggest that the two kinds of changes are different in nature and that those induced by language contact have not contributed to language speciation in the same way as those owing (principally) to language-internal mechanisms. Putatively, genetic classifications should be based only on correspondences suggested by internally-motivated change. Thus, they conclude that creoles cannot be classed genetically, because, in their case, contact was so extensive that the comparative method cannot be applied to them in informative ways. This disjoint view of language diversification, which has treated creoles as children out of wedlock (Mufwene 1997b, 2001), is so deeply entrenched in linguistics that it is repeated both in general introductions to linguistics and in historical linguistics textbooks. When the latter kinds of books cover the development of creoles at all as part of their subject matters, they also claim that these vernaculars are genetically “exceptional,” if not unnatural, because they have not emerged in the “usual” and/or “natural” way. See, e.g. Hock & Joseph (1996, critiqued in Mufwene 1998, 2001).²

Heine & Kuteva (2005) are rather exceptional in arguing that Europe is a linguistic area, one in which language contact accounts for the wide diffusion of several grammatical features, suggesting that the correspondences that obtain among several Indo-European languages are not necessarily due to common inheritance. It can be concluded from the book that one must know a substantial amount of the histories of particular populations before determining whether their shared linguistic materials are due to diffusion through contact or to shared ancestry. Thus, the comparative method can in principle not be used unilaterally, without taking into account the histories of the relevant populations, in order to determine whether or not two language varieties are genetically related (see,

¹ I am grateful to Peter Bakker for helpful comments on an earlier version of this paper, especially for recommending it for publication despite our fundamental differences on whether or not creoles are genetically or evolutionarily unique. I maintain that they are not and I am solely responsible for all the remaining shortcomings.

² DeGraff (2003) provides a detailed critique of the “exceptionalism” paradigm.

e.g. Aikhenwald & Dixon 2001; Lightfoot 2002). It only reveals the extent to which languages share structural materials (sounds, morphemes, or syntactic structures) but not how these came to be shared.

Adducing arguments from external history, I argue in this article that the above problem stems from a misinterpretation of the genetic *Stammbaum* (or cladogram) as an account of language diversification rather than as a representation of the outcome of the speciation process. The problem also comes from a basic assumption in genetic linguistics, since the design of the *Stammbaum* by August Schleicher in the 19th century, that normal language diversification proceeds monoparentally (a process identified by biologists as “asexual transmission”). Accordingly, language contact can be invoked especially to account for irregularities in the correspondences revealed by the comparative method but not as the cause of the regular changes that lead to speciation. In the case of recent language contacts, in particular those that have produced creoles, it has usually been stipulated that the comparative method does not apply. Such language varieties are claimed to be the outcomes, allegedly unusual, of changes which are externally-motivated. Consequently, these varieties have typically been disfranchised by most linguists as separate languages that are genetically unrelated to the European languages from which they have evolved (see, e.g. Thomason & Kaufman 1988; Thomason 2001, 2002), despite the contrary sentiments of their speakers, as in the case of Gullah in the United States (Mufwene 1988). To my knowledge, however, the comparative method has never been applied in such cases (Mufwene 2003a). Posner (1985) and Trask (1996) should not be dismissed so casually when they claim that French Creoles and Papiamentu are new dialects of French, in the case of the former group, or new Romance languages.³

I submit that the whole distinction between internally versus externally-motivated change must have to do with another legacy from the 19th century: the ideology of language purity, which is itself related to that of race purity. According to this, hybrids, products of race or language mixing, are less normal, if not simply, abnormal phenomena (Mufwene, to appear). It is therefore not surprising that creoles and pidgins, as putatively extreme cases of externally-motivated change, have typically been suggested to be unnatural developments, even by creolists (e.g. McWhorter 2000, 2001, 2005).

The distinction between putatively the “unusual emergence” of creoles and the “normal evolution” of non-creole varieties must also have to do with a myopic perception of colonization as a recent phenomenon, correlated only with the dispersal of Europeans around the world since the Great Explorations of the 15th century. Unfortunately, this position overlooks, or downplays, the important ecological fact that, for instance, the emergence of the Romance languages has to do with the Roman Empire, which is a past instance of colonization. The spread of Roman culture (including Rome’s political, economic, and military systems, as well as its language) entailed population movements and language contacts. The latter resulted in language shifts and the gradual prevalence of the colonial language (which won only a Pyrrhic victory) at the expense of the indigenous ones.

This expansive and replacive evolutionary process is also true of the birth and subsequent spread, with modification, of Old English as one of the consequences of the colonization of England by Germanic populations since the 5th century, although it also resulted in the demise of the continental European languages that the colonists had brought with them. Increased and/or additional contacts with the indigenous Celtic languages and other continental European languages (e.g. Old Norse and Norman French) would likewise lead to both the demise of the latter and more restructuring of English all the way to its modern forms. Many other examples can be cited, including the colonization of most of sub-Saharan Africa by the Bantu populations (an expansion which started about 8,000 years ago), the gradual loss of Pygmy and Khoisan languages, and the

³ This position about the genetic classification of French creoles with the Romance languages was assumed much earlier by Faine (1937), Hall (1950), and Goodman (1964).

concurrent diversification of the Bantu languages themselves. I submit that it is in fact possible to account for language diversification around the world as generally motivated by population movements and contacts, therefore by language contact even in the cases of the so-called “internally-motivated changes.” This position of course entails acknowledging language and/or feature competition and selection as a central part of the engine which drives language evolution.

Once we explain, as in Mufwene (2001), that the fundamental and only kind of contact that triggers language evolution is inter-idiolectal, then the distinction between internally and externally-motivated change becomes an artificial one, mostly sociological (see also Pargman 2002).⁴ All causes of change in any language are external to its structure, lying in the communicative acts of speakers, such as the accommodations that speakers make to each other in order to be (better) understood and in the exaptations they make of old materials to convey new ideas. Contrary to the confusion in Trudgill (2004), mutual accommodations among speakers are part of the continual process of competition and selection which changes patterns of variation in a speech community, reducing them in some cases and increasing them in others.⁵ Kretzschmar & Tamasi (2003) actually show that languages have long-lasting memories and that variation is seldom obliterated. My position is that the dynamic fluctuations subsumed by *competition and selection* are where we should find the answer to the actuation question addressed by, e.g. Weinreich & al. (1968), McMahon (1994), Nettle (1999), Labov (2001), and Mufwene (2005a, 2005b).

While it is necessary to situate the actuation of language change in individual speakers, one must remember that historical and genetic linguistics, the research areas specializing on language evolution, are about what Mufwene (2001) calls “communal language.” On this view, languages are extrapolations constructed from idiolects, resembling what biological species are to the organisms they have been posited to group or class together. The reason for this clarification is that linguists have typically discussed the lives of languages relative to communities of speakers. With languages assumed to be shared means of communication within communities, it is only at the communal level that important cross-idiolectal patterns of evolution can emerge. However, in order to understand how evolution proceeds and what causes it, we should not lose sight of the individualities of speakers, although we must situate them in the histories of their communities, from which they have both inherited a number of patterns and shaped new ones.

This approach to language as *practice* (constantly in flux), rather than as a static system, is consistent with Meillet’s (1921, 1929, 1951) and Hagège’s (1993) observation that language “acquisition” is partly inheritance and partly recreation. It reflects an idea we also find in Lass’s (1997) phrase “imperfect replication,” which, while accounting for the so-called “internally-motivated” changes, raise the question of what distinguishes imperfect replication in first-language

⁴ Campbell (1998: 286-287) supports this distinction, considering as internally-motivated changes those that are caused by speakers’ physiological and perceptual peculiarities. I am of the opinion that such factors which shape particular language varieties are external to language itself taken by linguists to be systems. They just make us aware of the complexity of factors external to language per se that influence its evolution. They too have contributed to the emergence of creoles.

⁵ It is absolutely important to conceive of “competition” here relative to a speech, rather than to a language, community, because the competing elements can also amount to regional and/or social varieties spoken in a language community. This perspective bears on the subject of language endangerment and loss to which I return below. In addition, note that the use of the terms *competition* and *selection* here need not be interpreted to suggest that structural features bear some agency in language evolution. As explained in Mufwene (2003, 2005a, 2005b), they do not, just like genes in population genetics. *Competition* in language has to do with the differential way in which variants are weighted by speakers in a speech or language community, whereas *selection* refers to the cumulative outcome of speakers’ choices in individual speech acts, which ultimately produce a particular language variety, distinct from others.

acquisition from Thomason's (1988, 2001) invocation of "imperfect second language acquisition" in relation to the development of creoles.

I argue below that all language changes are externally-motivated, in the sense that motivation for, or the causation of, change is external to language structure, and contact (situated at the inter-dialectal level) has always been an important factor causing changes in the "balance of power" among competing variants. I will deliberately ignore those other important changes that are due to innovations or exaptations, which are associated with simple inability to replicate the way other members of the community speak or with new concepts which cannot be expressed with traditional forms or constructions.⁶ To accomplish this demonstration, which will be kept at the macro-level (that of communal languages), we will review part of the history of Europe as a history of population movements and language contacts. Because of how colonization is implicated in this history, we will also discuss the differential ways in which European colonial languages have evolved outside Europe, including the kinds of issues that have recently interested linguists under the umbrella of "language endangerment and death." However, it will help to clarify some myths at the outset of this critical excursus.

2. Some myths and facts about the development of creoles

2.1 Among the facts are the following: Creoles of the Atlantic and Indian Ocean, our heuristic prototypes for this historic category of languages, have evolved from the contacts of non-European populations with European populations of principally low socio-economic backgrounds, (native and nonnative) speakers of nonstandard European vernaculars in exogenous plantation settlement colonies (Chaudenson 1992, 2001, 2003). These territories, mostly insular and coastal, and typically between the tropics, were third-party places in which both Europeans and non-Europeans were newcomers. The colonists developed derivatives of European socio-economic systems that depended on slave labor, who quickly became the overwhelming demographic majorities.

These societally multilingual communities gradually evolved into monolingual ones in which the economically and/or politically dominant European language prevailed at the expense of all the others, an experience that is true of other non-plantation settlement colonies such as North America – with the exception of coastal Georgia and South Carolina, as well as Louisiana – and Australia. Language shift among the free populations was experienced later, in the 19th century in North America, than it was among the slaves and apparently also among the indentured servants. New colonial varieties of European languages evolved concurrently, in the form of koinés among the native speakers but in more divergent forms among speakers of different non-European ethnolinguistic backgrounds, especially after the European and non-European populations became segregated. In the plantation colonies, primarily those associated with the cultivation of sugarcane, rice, or coffee, the most divergent vernaculars associated with the slaves and their descendants have been disfranchised by linguists, under the label *creoles*, from genetic kinship with the other colonial varieties that are considered dialects of the same metropolitan languages.⁷

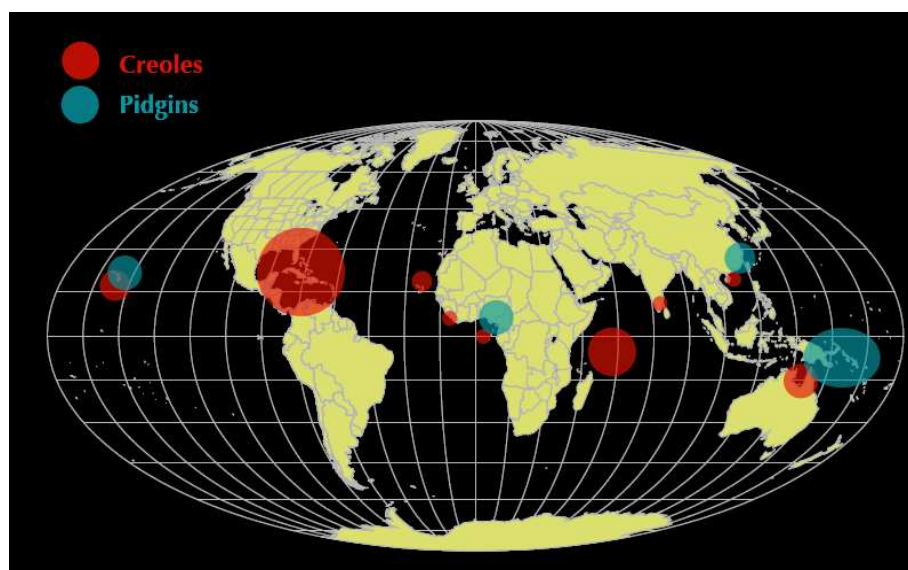
⁶ But even such changes can spread in the communal language only through inter-dialectal contacts. In some communities, especially colonial ones, some of the influential idiolects are xenolectal, associated with L2-acquisition.

⁷ The folk term in the relevant communities has been *Patois* (now nativized as *Patwa*) in Anglophone and Francophone territories. It has borne more or less the same meaning as during the colonial period and before, viz., 'rural or provincial, especially nonstandard variety of a language, usually derided as bad and/or unintelligible by speakers of the urban or standard variety'. For discussions of the term *creole* and how linguists have extrapolated it, see Chaudenson (1992, 2001, 2003) and Mufwene (1997a), as well as the sources cited in both publications.

As much as linguists have denied it, the race of speakers seems to have been an important factor in this discriminating practice (Mufwene 2001, DeGraff 2003), owing largely to the fact that the distinction between creole and non-creole originates in the 19th century ideology of pure languages. Subsequent extrapolations of the term *creole* to language varieties that evolved from colonial contacts involving no European languages or to others that emerged from contacts of European languages before the 15th century (e.g. the Romance languages) only illustrate adequately the perception by some scholars of undeniable similarities between the contact ecologies of the emergence of creoles and those of the evolution of other languages, as well as between the mechanisms involved in their restructuring processes.

2.2 Among the myths are the following which have been disputed principally by Chaudenson (1973-2003) and Mufwene (1996-2005a). Space considerations make it unnecessary to repeat the arguments here; interested readers may find them in the above references. Suffice it here to expose and dismiss them very quickly, so that we can reinterpret European language history also from a colonization perspective.

2.2.1 Creoles developed abruptly, formed by children from erstwhile pidgins made by their parents. History suggests, instead, a gradual development from the colonial koiné ancestors spoken as vernaculars by the Creole populations of both European and non-European descent in the homestead communities that preceded the plantation communities. The intimate, though by no means equal, living conditions between slaves, indentured servants, and other early colonists made impossible the development of pidgins as reduced means of communication based on sporadic contacts. They precluded the possibility that Black and Mulatto Creoles would have spoken different varieties from White Creoles, especially if population structure rather than biological race (as controversial as the notion is) determines what particular language variety a child “acquires” (Mufwene, to appear). Both Creole and Bozal children seem to have played an important role as transmitters of the colonial language and as an obstacle to a more rampant spread of substrate influence in the emergent varieties, although, as DeGraff (1999) observes, they must have contributed to the selection of some of their parents’ xenolectal peculiarities into the new systems. Moreover, as shown in Mufwene (2005a), there is an interesting geographical complementary distribution between the territories where creoles developed and those where pidgins emerged, as illustrated in Map 1.



Map 1: Complementary geographic distribution of creoles and pidgins

2.2.2 It has been claimed that creoles reflect imperfect L2-learning of the European colonial languages by the slaves (e.g. Thomason & Kaufman 1988, Kaufman 2001). The emergence of other colonial varieties which are also divergent from the metropolitan ones, e.g. American and Australian Englishes, Québécois French, or Brazilian Portuguese, suggests that imperfect learning applies to all groups. No operational yardstick has been proposed to measure the threshold past which one divergent variety qualifies as a creole and below which it does not. No history-based characterization has been provided of the unique modes of language “transmission” and “acquisition” that must be associated with the emergence of creoles. One must look for an explanation other than imperfect language learning to account for the undeniable structural differences between the creole and non-creole colonial varieties of European languages we know today.

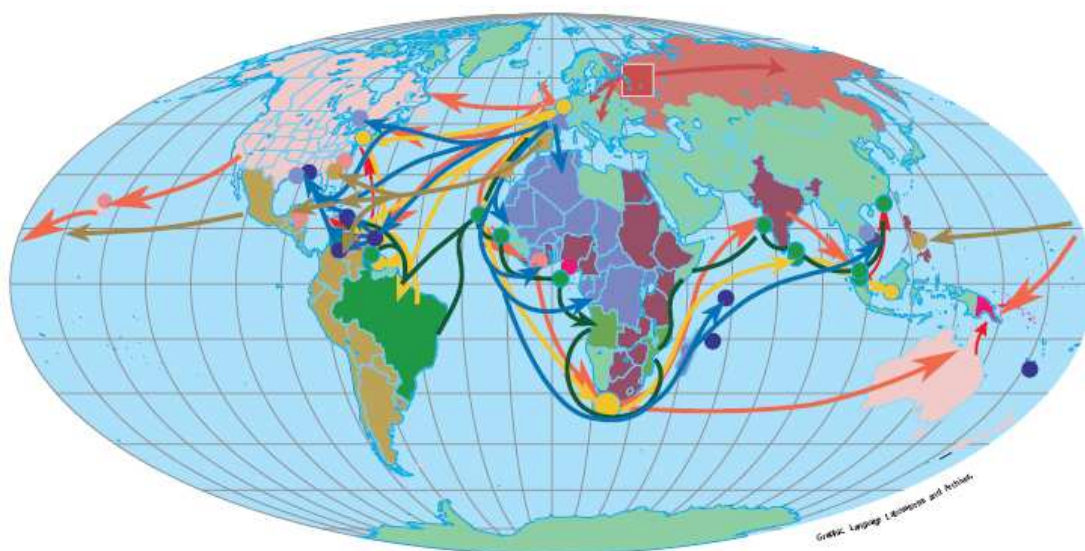
2.2.3 Since about Polomé (1983), it has also been claimed that structures of creoles are so divergent from those of their non-creole kin because there was a break in the transmission of their “lexifier,” a convenient misnomer for the languages from which they have evolved (Mufwene 2005a). As McWhorter (2001) puts it, a new language was invented from, or after, the “pulverization” of an earlier one.

This “discontinuity hypothesis” does not explain why creoles retain such large proportions of their vocabularies from their lexifiers (up to 95% according to Cassidy (1980), over 85 % in Saramaccan, one of the most “radical” creoles), nor why we can link so many of their structural features to their nonstandard European ancestors (see, e.g. Chaudenson (1992, 2001, 2003) and Corne (1999) for French creoles, as well as Mufwene (2001) for English creoles). In fact, the position cannot explain why in all plantation settlement colonies the slaves developed their vernacular from a European, rather than an African, language. Even Berbice Dutch, which has retained more grammatical materials from a substrate language (Eastern Ijo, per Kouwenberg 1994) than any other New World creole, has evolved primarily from Dutch. Although Surinamese creoles have been heavily influenced by Dutch, most of their lexical and structural materials originate in English, the language of the founder colonists. The Dutch colonists simply decided to communicate with their slaves in the language that their English predecessors had used, although they themselves influenced the emergent varieties too, as evidenced by the materials of Dutch origin in Sranan.

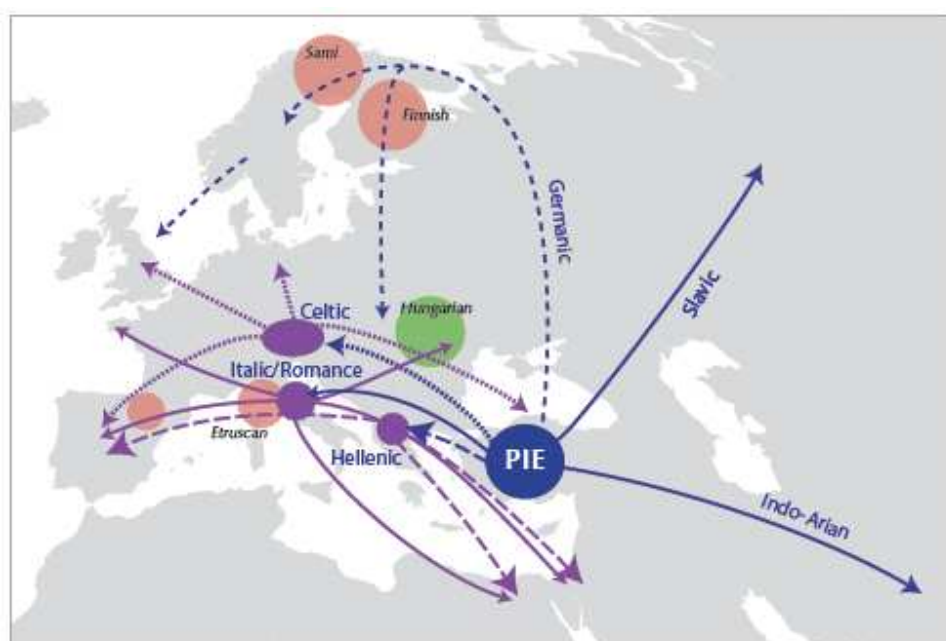
2.2.4 It has also been claimed that the comparative method cannot apply to creoles in order to determine whether they are genetically related to their “lexifiers” (Thomason & Kaufman 1988, Thomason 2002). The objection to this claim is very simple: it has never been tried and, as pointed out by Chaudenson (1992, 2001; Mufwene 2003a), the myth is based on mistaken comparisons of creoles’ structures with those of the standard varieties of European languages. Creoles may actually reveal the artificiality of the comparative method itself based on “clean” data constituted by written records, which are not representative of the messy, internally variable, spoken vernaculars. Besides, as noted in Part 1, the comparative method only shows how much material is shared by a group of languages, regardless of whether the common stock was inherited from a common ancestor or spread among them by diffusion. This point is well made by most of the contributors to Aikhenwald & Dixon (2001). Meillet (1900) had already developed a similar argument, pointing out, in addition, that genetically related language varieties may share morphological structures or distinctions simply because they innovated (or borrowed) them under similar ecological conditions, but not necessarily because they inherited them from their common ancestor. Moreover, we cannot ignore cases where a language diverges significantly from its genetic kin simply because it has been heavily influenced by other languages, as in the case of English, which bears heavy influence from Latin, French, and the insular Celtic languages (among others), compared to Dutch and German.

I argue in Part 3 that creoles are, along with their other colonial kin, the latest linguistic outcomes of the Indo-European dispersal. The European colonization of the world since the 15th

century, illustrated in Map 2, is just an extension of the original Indo-European dispersal which began about 5,000-6,000 years ago (see, e.g. Forston 2004) and proceeded according to the cluster-bomb model illustrated in Map 3.



Map 2: European Colonial Expansion since the 15th century



Map 3: Indo-European Dispersal: The first colonial expansion

2.3 There are a few issues that must be addressed if linguists wish to stick to the assumption that creoles are peculiar, with their unique set of ecological conditions that set them apart from other cases of language speciation.

2.3.1 One of these arises from the association of the emergence of creoles with large plantation colonies, especially those that thrived on sugarcane cultivation. If this association is true of most of the Caribbean, it is not true of Brazil. Although this polity was the first New World colony to have launched into sugarcane cultivation and the one with the largest number of slaves engaged in this particular industry, it has produced no language varieties identified as creoles. The closest thing to a creole spoken in Brazil is Popular Brazilian Portuguese, which, based on Naro and Scherre (1993), developed basically from (ex-)colonial nonstandard Portuguese, whose features are clearly traceable to metropolitan Portuguese. Attempts to classify it as a “semi-creole” (Holm 1989, 2004) underscore the metropolitan origins of most structural features of virtually any creole, despite the undeniable role of substrate influence on their restructuring into novel systems. See especially Chaudenson (1992, 2001, 2003) and Corne (1999) for French creoles.

The case of Brazil need not be confused with that of colonies such as Cuba and Santo Domingo (the present Dominican Republic). The latter territories had a protracted homestead development phase, during which their primary industry was animal husbandry, as they gave up sugar cane cultivation quite early in their colonial history. A large-size and relatively well-integrated Creole population had already emerged by the late 18th century when they resumed industrial sugarcane cultivation and imported more and more slaves till the late 19th century. The integration of the bozal slaves by the large proportion of Creoles prevented the emergence of creole-like varieties, though at least one significantly divergent variety of Cuban Spanish has been reported, associated especially with 19th century migrations from Haiti since its independence (Schwegler 2006).

The extent of miscegenation in Brazil seems to reflect a different kind of population structure which allowed relative integration of the labor force, regardless of whether they were African slaves, indentured servants, or Native Americans. The case of Cuba and the Dominican Republic shows that late implementation of segregation could not produce as much divergence as early adoption of the same practice, such as in the Anglophone and Francophone Caribbean. The case of Brazil is more comparable to that of the continental USA (except Louisiana), where the late institutionalization of race segregation in the late 19th century has produced no significant structural differences between African American vernacular English and White Southern English. The separation of races came too late to induce a significant speciation of what until then had been the same vernacular of low-class speakers. (See, for instance, Bailey & Thomas 1998, regarding their phonological features.)

On the other hand, segregation imposed by geographical isolation accounts for the development and maintenance of creole vernaculars on islands such as St. Vincent (Prescod 2004) and Carriacou (Kephart 2000), on which majority populations have always been overwhelmingly of African descent.⁸

⁸ Interestingly, the structures of these creoles appear to be quite close to those of Gullah and thus not as divergent from their other nonstandard colonial kin as the basilects of Guyanese and Jamaican Creoles, for instance. This phenomenon raises interesting questions on the progression of the geographical continuum that Alleyne posited for English creoles as extending from Surinam to North America. Note that the problem arises only if one assumes, as in the relevant literature on “decreolization,” that the continuum is linear, with basilectal and acrolectal poles, with partial implicational scales of structural features. I disagree with that particular view of the continuum, according to which some creoles are allegedly more basilectal or conservative than others, as if there had ever been a common basilect once spoken everywhere in territories where creoles have evolved from the same “lexifier” (Mufwene 1994, 2001). See also note 10.

2.3.2 Some colonies such as the Netherlands Antilles and Cape Verde have produced varieties identified as creoles (Papiamentu and Criolou, respectively), although they hardly developed any noteworthy agricultural industry. For a long time they did not develop a large-size permanent slave population, as they served primarily as trade posts and slave depots where slaves were in transition to other destinations. Is it justified to associate the development of creoles with large plantations and treat the emergence of Popular Brazilian Portuguese as an exception from the rule?

The case of Brazil certainly highlights population structure as a more important factor than the high demographic disproportion between the native and nonnative speakers in favor of the nonnative group. However, it also appears that where segregation or isolation of the relevant population (that engaged in the process of language shift) is a factor,⁹ we must also take into account another factor discussed in Mufwene (1996), viz., rapid population replacement in a steadily growing overall population. This seems to be a critical factor for Cape Verde and the Netherlands Antilles. Brazil differs from them in developing a less segregated society, although there are allegations of race discrimination against populations of African descent, as in most other colonies. Creoles must have evolved as significantly divergent and segregated vernaculars not only on the plantations but also in those colonies that served as major slave depots. Thus, the development of creoles need not be associated with one particular kind of economic activity.¹⁰

2.3.3 If (extensive) societal multilingualism is a condition for the development of creoles, this factor does not seem to have mattered in the case of Berbice Dutch, since this variety developed out of the contact of two major populations: the Dutch and Eastern Ijos. I raised this question in Mufwene (1993), but I have not seen anybody address it yet. Also, if relexification were really involved in the development of creoles, this is one particular variety that would prove it. However, even detailed studies such as Kouwenberg (1994) fail to show the exclusive or predominant origins of Berbice Dutch's structures from Eastern Ijo. It is possible to account for its emergence as a by-product (not outcome, *pace* Thomason & Kaufman 1988) of language shift.

The case of Berbice Dutch seems comparable to that of the emergence of the Romance languages from the gradual shift by Southwestern European populations from their Celtic languages to Vulgar Latin. An important difference lies in the fact that this ethnographic process was endogenous in the case of the Celtic populations and exogenous in the case of the Eastern Ijos in Guyana. It is also different from that of foreign workers' German or French varieties, because even the "lexifier" was in an exogenous setting in the case of Berbice Dutch and other creole vernaculars.

⁹ Note that this factor accounts negatively for why African American vernacular English, unlike Gullah, is not significantly different from American White Southern English. As noted above, segregation in the hinterland of the American South was institutionalized only in the late 19th century, with the passage of the Jim Crow laws, almost two and half centuries after (former) slaves and (former) white indentured servants had lived intimately and developed a common American Southern English. Bailey & Thomas (1998) are so right in situating the divergence of White Southern and African American vernacular Englishes in the late 19th-early 20th centuries.

¹⁰ One must also note that there are other colonies, such as the Madeira and Canaries Islands which also engaged quite early (in the 15th century) in sugar cane cultivation and slavery but did not produce creoles either. Size cannot be such an important factor, because of what happened in Cape Verde and other small islands or archipelagos. The industry did not last long in these colonies (Schwartz 1985), although it is not clear whether they had population structures similar to that of Brazil. On the other hand, it is noteworthy that the structures of Cape Verdean Criolou are said to be less divergent from those of Portuguese than those of São Tomense and Principense in the Bight of Biafra. It has also been pointed out that the tense-aspect number marking systems of Papiamentu are not exactly like those that are attested in most creoles (Andersen 1990). Could it be that these creoles developed primarily from the varieties of permanent Creole populations that spoke what Chaudenson identifies as "approximations" of the European language and underwent less influence from Bozal speech than elsewhere?

Moreover, no complete shift is involved in these more recent cases. If one considers the fact that children become gradually monolingual in French or German, then we may assume that the variety will die soon after the immigration of foreign workers ends.

These differences make the distinction between the development of creoles and that of non-creole varieties non-structural, pointing to no particular language restructuring process that can be identified as *creolization*. Thus, Mufwene's (2000a) conclusion that *creolization* is a social process remains valid. Noteworthy in this connection is also the fact that, as pointed out by Chaudenson (2001), none of the studies of foreign workers' xenolectal varieties has produced evidence for relexification, as homogeneous as the populations that produce them have been ethnolinguistically, viz., Turkish-speakers in Germany and Arabic-speakers in France. The homogeneity has also been maintained thanks to residential and/or social segregation, which has left the adult migrants (not their children) to interact mostly among themselves and to (learn to) speak the local vernacular occasionally, mostly at work and at the market with non-Turks and non-Arabs, respectively.

If this comparison sheds any light on the development of Berbice Dutch, from an ethnographic perspective, it suggests that language shift among the Eastern Ijos in Guyana must have been more gradual than elsewhere, because they could communicate in Ijo among themselves. It also suggests that a key factor in cases of complete language shift is the "refusal" by children to speak their parents' languages, especially in situations where no more speakers of the ancestral languages are brought to the exogenous setting (Mufwene 2004, 2005a).

2.3.4 Are the so-called "semi-creoles" evidence of a process of "creolization"? Or do they suggest a continuum of degrees of structural divergence from the "lexifier"? In the latter case, they may be interpreted to suggest that, subject to specific ecological conditions, the restructuring process did not always yield varieties that are equally divergent. At the communal language level, one can say that some varieties remain closer to the *terminus a quo* than some others.¹¹

The best empirical answer to the latter question comes from Schneider's (1990) study of English colonial varieties spoken by the descendant of Africans in the Caribbean and the United States. He presents a "cline" of divergence from standard English, showing African American vernacular English (AAVE) to be less divergent than basilectal creole varieties of especially Surinam and Guyana. The study corroborates in quantitative terms what Alleyne (1980) had already observed by positing, in addition to local social continua, a broad geographical continuum of "Afro-American" extending from Saramaccan in Surinam to AAVE in the United States that he thought was a concurrent of the differential development of creoles rather than the outcome of decreolization as claimed by Schuchardt (1914), Bloomfield (1933), DeCamp (1971) and many later linguists who assume Hall's (1962) "life-cycle" theory.

As shown by Lalla & D'Costa (1990) and argued in Mufwene (1991, 1994), there is no convincing diachronic evidence (perhaps with the exception of Barbados, per Rickford & Handler 1994), for decreolization in creole societies, let alone for the evolution of AAVE from an erstwhile

¹¹ As explained in Mufwene (2001, 2005a), there cannot really be a common yardstick for measuring degrees of divergence, because the "lexifier" was hardly the same from one colony to another. Assuming that the European languages were internally variable, the different colonies hardly constituted identical representations of metropolitan variation patterns, especially in terms of the demographic strengths of the different variants. From an evolutionary perspective, this cross-setting variation entailed different dynamics of coexistence, different markedness values associated with the variants, and thus the possibility that different variants could be favored in different settings. As in much of the literature, the present discussion oversimplifies a colonial situation in which metropolitan languages evolved differentially from one setting to another. Besides, the evolutions were primarily local (Kretzschmar 2002); one must indeed remember that polities are in effect "metapopulations" of localities interconnected by a transportation infrastructure (traditionally roads and rivers) and by "dispersing individuals" (Mufwene 2001).

Gullah-like English that would have been spoken all over the USA in the 18th and/or 19th centuries (Mufwene 1994). Recent scholarship, such as Labov & Harris (1986), Bailey & Maynor (1989), and Bailey & Thomas (1998) suggest divergence evolution between AAVE and American White Southern English, just like Pollard (2000) suggests non-convergent evolution between Jamaican Creole and Jamaican English.

The greatest problem with the semi-creolization hypothesis as the reversal of the decreolization hypothesis lies in difficulties with determining what “creole features” really are or what a “prototypical creole” is supposed to be. McWhorter’s (1998) attempt at identifying the prototypes by the combined absence of inflections, of derivations, and of tones was not particularly successful. With extensive counter-arguments, DeGraff (2001) demonstrated that the alleged lack of derivations was no more than a controversial parameter in the case of Haitian Creole. We may want to add that the “lexifiers” are not particularly tonal languages, which can naturally explain why creoles need not be expected to be tonal, although most of their substrate languages are. The competition of features was naturally resolved in favor of toneless systems, except in Papiamentu. In addition, the nonstandard varieties from which creoles have evolved are not as inflectionally rich and regular as their standard varieties (Chaudenson 1992, 2001). The rarity of inflections in creoles is thus, as Chaudenson (*ibid.*) already observes, the ultimate conclusion of an inflection-erosion process that was already taking place in the colonial “lexifiers” themselves. Publications such as Brasseur (1997) and Chaudenson et al. (1993) make this observation more evident.

Coming back to derivations, one can only thank DeGraff (2001) for showing that creoles have not only selected many affixes from their “lexifiers” but also innovated other ones, despite the loss of some and the significance of multifunctionality in their morphosyntaxes. Consistent with the fact that the Romance and Germanic lexifiers themselves represent impoverished morphologies compared to their older Latin and Germanic ancestors, respectively, we can safely assume, after Chaudenson (1979f), that the so-called “creolization” process is largely an extension of restructuring processes that had already started in the relevant “lexifiers.”

There cannot be a “creolization” processes without a specific combination of “creole features” that would help us identify it. There is no exact measure that can be used to determine whether the restructuring has proceeded only half, or part of, the way. Rather, the reality in which every creole differs from every other creole that evolved from the “same” colonial European language shows family resemblance, in the same way that the Romance, West Germanic, or Bantu languages share, within their respective families, only parts of their structures with each other, while remaining different in a number of other respects.

The “semi-creolization” hypothesis is thus an inadequate way of capturing the differential evolution of colonial European languages in plantation settlement colonies, with some of the new varieties being less divergent from their colonial non-creole kin than others. It reflects a misinterpretation of the ways in which differing ecological settings (e.g. proportions of speakers, changing strengths of the variants in the super- and substrate languages, patterns of population growth) have variably influenced the outcomes of the contacts of more or less the same languages. The remark applies to observations such as in Winford (1997, among others), which identify some creoles as “intermediate” or “mesolectal” (e.g. Bajan), as if a uniform basilect was once spoken everywhere in the Caribbean (and North America) by all slaves. Alleyne’s (1980) position on social and geographical continua remains the one most consistent with history.

This ‘ecological setting’ is also made more complex by Chaudenson’s (2003) *parler de seconde génération*,¹² which is also evident in Le Page & Tabouret-Keller (1985) and Winford (1997), in

¹² This is an improvement over what he originally misformulated as “generations of creoles” on the models of generations of computers in Chaudenson (1979, 1992, 2001). The colonial language variety brought to a

reference to varieties such as Guyanese Creole or Mauritian, whose evolution cannot be explained without factoring in the colonial language variety imported to the new colony from an earlier colony. Colonial history suggests that cross-colony influences must have been more common: for instance, in the case of Anglophone Caribbean, from St. Kitts to Barbados and other islands in the early 17th century (Baker & Bruyn 1998), from Barbados to Surinam and Jamaica in the mid-17th century, from Barbados to South Carolina in the late 17th century, from South Carolina to Georgia in the early 18th century, and from Barbados and other islands to Trinidad and Tobago and to Guyana in the 18th century. As suggested by Le Page & Tabouret-Keller (1985), this complex web of colonial migrations defies a unilinear account of the evolution of creoles.

2.3.5 The above discussions must prompt us to ask whether, in the first place, it is rewarding, from the point of view of language evolution, to assume a priori that creoles have developed in their own unusual way. While it is informative to find out the respects in which they diverge structurally from (the standard varieties of) their “lexifiers” and their other colonial, non-creole kin, how important is it to label them seemingly a priori as *creoles*? For instance, from an evolutionary point of view, how much is to be gained from identifying the Cape Verdean vernacular as *creole* when comparing it with Popular Brazilian Portuguese? The same question applies to Gullah, also identified as a *creole*, in comparison with its American hinterland kin AAVE, which is identified by Holm (1989, 2004) as *semi-creole*. Even the identification of the latter as a semi-creole is question-begging in comparison with other colonial varieties such as Old Amish English, which has clearly arisen from the contact of English with some continental European languages (notably German), under particular conditions of social isolation, but is not identified as a (semi-)creole.

Perhaps the extent-of-divergence question, arising from the term *semi-creole*, is revealing from a sociohistorical perspective. Insofar as the identification of particular colonial varieties as *creoles* can generally be correlated with places where descendants of Africans have become overwhelming population majorities, the term presupposes some measure of the extent to which the non-Europeans were socially isolated and of whether miscegenation has been extensive or limited. From this perspective, even varieties such as Cape Verdean are creoles, although its structures are said to be (much) closer to nonstandard Portuguese than those of São Tomense, Angolar, and Principense (in the Bight of Biafra). The particular ecological conditions of their development, including patterns of population growth, the ensuing population structure, and the proportion of speakers of (approximations of) the colonial European language among non-Europeans can help us account for the differential outcomes of the structures of specific creoles.

However, what we are not learning is the more general fact that, regardless of whether or not the new varieties are identified as creoles, the specific local ecological conditions of population contacts generally influenced the differential evolution of the European languages from one colony to another. For instance, the French variety of Québec differs from that of Louisiana just as Martiniquais Créole does from Haïtien, because of specificities of the ecologies of their emergence. We can explain in the same way differences between, for instance, American Southern English, New England English, Gullah, AAVE, Jamaican Creole, and Jamaican English. One important reason why the traditional approach to the development of creoles should be given up is that it has generally failed to inform us, from the perspective of language restructuring, about the specific

colony from an earlier colony need not have been a creole already. In some cases, such as when Mauritius was settled from Réunion or Suriname and Jamaica from Barbados, it is doubtful that a creole had already emerged in the mother colony. What matters the most in this particular case is the fact that second-generation colonies did not start from the same kind of language contact situation as their first-generation counterparts. The slave populations from the earlier colonies already spoke some variety of the colonial language and provided a more coherent, or less diffuse, linguistic infrastructure from which the creole would develop, perhaps faster.

respects in which the emergence of creoles generally differs from the presumably more continuous evolution of, for instance, the Germanic and Romance languages from their proto-varieties.

As in Mufwene (2001, 2005a), I argue below that external history suggests that there are actually no differences in regard to the restructuring processes involved. We could as well have spoken all along of the continuous, gradual evolution of creoles from their “lexifiers.” If anything, creoles are prompting us loud and clear to question some of our assumptions about the putative differences between their development and those of the non-creole languages, especially regarding the critical role of language or dialect contact in answering the “actuation question.” Variation in the specific language varieties involved in the contacts as well as in population structure, along with other ecological factors discussed in Mufwene (2001, 2005a, 2005b), go a long way to explaining language speciation, highlighting similarities between the evolution of both creoles and non-creole language varieties.

Those like Thomason (2002, 2003) who are particularly wedded to the comparative method as proof of genetic kinship among languages should also remember that all shared items and structures among languages are not necessarily due to inheritance from a common ancestor; contact can also account for some of the formal and structural correspondences (Aikhenwald & Dixon 2001, Heine & Kuteva 2005) as can parallel innovations (Meillet 1900). A contact-based approach to genetic linguistics can thus be informative not only about why some offspring of particular proto-languages have more divergent structures than others, but also about how the divergence can be correlated with patterns of other languages that a proto-language came in contact with. The approach can thus inform us about shared forms and/or structures that are not attested in the proto-language. These are precisely the kinds of explanations that have been provided for why creoles have, for instance, well-developed serial verb constructions, due to the influence of substrate languages that have such constructions. All things considered, the uniformitarianism advocated in this essay makes it also natural to invoke inheritance of features from the lexifier as an explanation for why, for instance, English creoles have prenominal definite articles and attributive adjectives as well as stranded prepositions in questions and relative clauses, unlike their substrate languages. Below, I start an excursus, based on external language history, which supports this uniformitarian thesis.

3. The “creole”-like evolution of English and the Romance languages

Similarities between the development of, on the one hand, creoles and, on the other, English and the Romance languages have been pointed out before in creolistics. Bailey & Maroldt (1977) hypothesized that Middle English must have creole origins, heavily influenced as it was by Norman French. They actually overlooked the fact that little, or no, language shift was involved in this particular case among the Germanic populations in England. The majority of English people continued to speak their vernaculars, little influenced by this continental European language. Only one sociolect, heavily influenced by the speech habits of the Norman colonists (aristocrats and administrators) and used then by their English colonial auxiliaries (a small minority), has evolved to show most of this French influence. It is standard English, used here as an abstraction of convenience subsuming several national standards. It is the sociolect that has undergone the Great Vowel Shift in its fullest form, representing an interesting case of differential evolution in a communal language. This was happening at a time when the more indigenous populations, the Celts (rather than the Germanics who had colonized them since the 5th century), were gradually shifting to English and seem to have been influencing the evolution of its vernacular varieties, as now made more obvious by students of Celtic Englishes (see, e.g. Filppula & al., eds. 2002). The completion of the shift is marked more conspicuously by the emergence of vernaculars such as Irish English.

In fact, it would have been more interesting to approach the genesis of English itself as a colonial, contact-based evolution that affected the Germanic language varieties brought to the British Isles, as noted in Part 1. Though it is not clear whether there was a single “lexifier” in this

particular case, it is very interesting that one particular group, the Angles, bequeathed their name to both the land now known as *England* and the language, *English*, which can now hardly be defined as ‘the language of the English people’ (Mufwene 2000b). While ecologically its genesis is apparently comparable to koinéization in the emergence of colonial Englishes, its subsequent evolution in the British Isles is very much influenced by important changes in the English population structure and by a continuous process of language shift among the colonized Celts, making the phenomenon no less interesting than that of later colonial English varieties, including indigenized Englishes and English creoles (and why not also pidgins).

We need not of course repeat Bailey & Maroldt’s mistake in invoking a putative process of “creolization,” whose meaning as a structural process remains illusive (Mufwene 2000a, 2001), not any more than we must disfranchise creoles a priori as having developed in their own unusual way. We should first abandon the 19th-century myth of language purity and approach the emergence of all of the new varieties from the point of view of language contact. The next step is then to let the facts inform us about more adequate distinctions that can be made.

Like Bailey & Maroldt, Schlieben-Lange (1977) compared, in the same volume, the emergence of Romance languages with that of creoles. If there really were *creolization* as a global language-restructuring process that had the peculiarity of transforming a non-creole language into a creole variety, her comparison was perhaps even closer to the being accurate than Bailey & Maroldt’s. It was after the Romans had abandoned their southwestern European colonies that the masses of the continental Celtic populations gradually shifted to Latin, which had become the vernacular of the local aristocracy and a major trade language. Christian missions and urban centers played an important role in spreading it. The scenario is similar to that of the development of creoles, after the European and non-European populations were segregated and mostly Black Creoles and seasoned slaves served as model speakers for the bozal slaves. See below.

On the other hand, as noted by De Landa (2000), this history of Latin also suggests that it did not spread in southwestern Europe in a rectilinear fashion. On the contrary, it spread from secondary dispersal points in the colonies: the Christian missions and the trade and/or administration points where it was already entrenching itself as a vernacular or as a dominant lingua franca. Noteworthy also is the fact that it is the nonstandard variety or varieties, Vulgar Latin, which, as accepted among Romanists, spread within the masses of the indigenous populations and subsequently evolved into the Romance languages, under Celtic substrate influence.

In this case too, we can note a bifurcated evolution. On the one hand, the elite variety known as Classical Latin, remained contained in the school system and among scholars, until it was replaced by the standardized varieties of the new national vernaculars (especially, French, Spanish, and Portuguese). On the other hand, Vulgar Latin continued its natural evolution into the nonstandard and colloquial Romance vernaculars spoken today. From the point of view of language vitality, one can also tell that it is not always the privileged or the most prestigious varieties that thrive. Classical Latin, is virtually dead, spoken today only as a lingua franca at the Vatican, while Vulgar Latin may be claimed to still be alive, in mutated forms.

The Celtic experience of language shift to Latin and its restructuring into the Romance languages is largely reminiscent of language shift and restructuring among the African slaves in the New World and Indian Ocean colonies of the 17th-19th centuries. Just like the Celts learned Latin primarily from non-Romans, most of the slaves had non-Europeans as their model speakers, especially during the plantation phase, when they became majorities in their respective colonies and segregation was then institutionalized to protect European minorities against possible uprisings. By the late 18th century, fewer and fewer bozal slaves learned the colonial vernacular from those Creoles who were likely to speak closer approximations of European speech; they had seasoned slaves, L2-speakers of the emergent creole, as their models. As with today’s indigenized varieties of

colonial European languages, the more speakers they gained, the more divergent they became, thanks to the mutual reinforcement of xenolectal features among nonnative speakers. The process was just as true during the gradual divergence of the Romance languages from (Vulgar) Latin. From the point of view of language shift, pressure to communicate in the new language came from people of one's own kind: urban and Christian missions' Celts in today's Romance countries, and the Creoles and seasoned slaves on the plantations. Ecology-specific considerations of adaptation costs and benefits to speakers drove the massive shift to monolingualism in the colonial language.¹³

Although the two cases of language shift differ in that the genesis of the Romance languages was endogenous and that of creoles exogenous, both kinds of settings favored substrate influence as acknowledged by Corne (1999), Chaudenson (2001, 2003), and Mufwene (2001, 2005a, 2005b), i.e., primarily as factors influencing the selection of particular structural variants from among various competing alternatives in the "lexifier." In both cases, substrate influence was facilitated by the fact that the new speakers, those who had shifted, or were shifting, languages spoke the new vernacular more among themselves than with its native or original speakers. We can indeed observe this phenomenon now in the so-called indigenized Englishes and *les français africains*, which display idiosyncrasies that can be related to features of their dominant substrate languages.

Recall that the term *substratum*, so central in studies of the development of creoles, came from Romance linguistics (Goodman 1993), in which its meaning was closer to its application in geology to lower layers of soil stratification. Having preceded Latin in the now Romance countries, the Celtic languages represented the "substratum" and Latin the "superstratum," in a way comparable to geological layers, which are also chronological. As pointed out by Chaudenson (1990) and Goodman (1993), Hall (1962, 1966) had extended the terms incorrectly, substituting a social stratification for the chronological order of arrivals in the colonies.

In many cases, European colonies that developed creoles or other divergent varieties associated with non-Europeans (e.g. Virginia, Barbados, Bermuda, and Réunion) had been settled by Europeans before substantial numbers of African slaves were brought in. In others, Europeans and non-Europeans arrived literally at the same time (e.g. Jamaica, South Carolina, and Mauritius), as these "second-generation colonies" were being settled from earlier, "first-generation colonies" (in the language of Chaudenson 1979-2003). There are no exogenous settlement colonies that had been settled by Africans before the Europeans arrived. In fact, some of the islands, such as Cape Verde, São Tomé, Príncipe, Réunion, and Mauritius, had been uninhabited before the European colonization.¹⁴

¹³ It is important to emphasize here that the experiences of language shift in Hawaii, the New World, and the Indian Ocean were not identical. Because Hawaii's contract laborers were ethnically segregated, their progenitors have maintained their ancestral identities to date. Therefore Japanese, Chinese varieties, Korean, and Pilipino have survived as ethnic languages. Only the European contract laborers have blended to some extent with the White Americans and have lost their languages. On the other hand, the slaves of the New World and Indian Ocean were mixed since the initial, homestead phase of the colonies. The concurrent emergence of a Creole population that never spoke a pidgin or a creole and served as model to the bozal slaves contributed to the continuous obliteration of ethnic distinctions, even during the post-Emancipation importation of contract laborers from regions of Africa and India that were relatively homogeneous linguistically (Mufwene 2004, 2005a). This is another interesting manifestation of the Founder Principle, with some of the practices of the founder population having far-reaching consequences.

¹⁴ However, as Hookoomsing (2000) points out, in the case of Mauritius, this is not so true of French colonization. The Dutch had discovered the Island in 1598, colonized it for the first time in 1638 and then finally abandoned it in 1710 to pirates (*Encyclopedia Britannica*, electronic edition, 2000), leaving some Maroon slaves behind (Hookoomsing 2000: 149). It is not clear what language varieties those Maroons spoke, if they survived the pirates and/or the Island's colonization by the French in 1721. If they did, what

Nonetheless, creolists have more or less accepted and normalized this notional inaccuracy, i.e., the incorrect way the term *substratum* was transferred from Romanistics by Hall (1962, 1966). They have capitalized on the fact that African languages, ranked socially as low, influenced the gradual evolution of some colonial varieties of European languages into creoles, just like the Celtic languages, also ranked as low varieties, played a role in the gradual transformation of Latin into the Romance languages. In both cases the influence was exerted through populations that were shifting from their ancestral vernaculars to a new one, the Celts in the case of Vulgar Latin and the African slaves in the case of colonial varieties of European languages.

The historical facts in themselves, those having to do with population movements and language contacts, underscore the need to approach the evolution of Latin and European languages in the colonies from the same perspective of language competition and selection in varying ecological conditions, as explained in Mufwene (2001, 2003b). We must simply bear in mind that competition and selection actually operate at the level of features, with restructuring cum feature-recombination (analogous to gene-recombination in biology) favoring those from a particular language (misnamed *lexifier* in creolistics) but making allowance for features from other languages in contact (misidentified as *substrate*) to get in or simply bear on the selection of variants from the advantageous language.¹⁵ In the development of both creoles and the Romance languages, we must be careful not to confuse the question of the origins of features (lexical items, morphemes, grammatical rules, etc.), which lie predominantly in the so-called *lexifier* and sometimes in the “substrate” languages, with that of influence that the latter have exerted on the selection of particular variants from a range of competing alternatives in the advantageous language.

Many more ecological similarities emerge from this comparison of the development of creoles and the Romance languages. They explain why both Posner (1985) and Trask (1996) are probably not mistaken in claiming that Haitian Creole and Papiamentu, presumably like other creoles lexified by French and Portuguese, are the latest Romance language varieties to have emerged. I return to this issue below. Recall, however, that the Latin variety appropriated and modified by the Celts was the nonstandard variety spoken by the (former) Roman legionaries and low-level colonial administrators, most of whom had been recruited locally. These are indeed the Latin speakers with whom the Celts interacted. It is therefore natural that the Latin which they modified gradually into Old Romance varieties (Old French and Old Iberian, in particular) developed from Vulgar Latin rather than from Classical Latin.

Also, contrary to what is often suggested in the literature referring to the older age of the Romance languages, it is actually Old Romance varieties that developed directly from Vulgar Latin, not the modern Romance languages. The latter represent later, post-formative stages in their evolution. Arguments that have dodged the comparison with creoles by claiming that it took the Romance languages over one thousand years to evolve (to their current structures) have missed the point about their initial formation. It did not take Old Romance much longer that it took creoles to emerge, i.e., be disfranchised, as separate languages, viz., more or less two centuries from the

impact did they exert on the development of the French colony and of the new colonial vernacular that was to become Mauritian Creole?

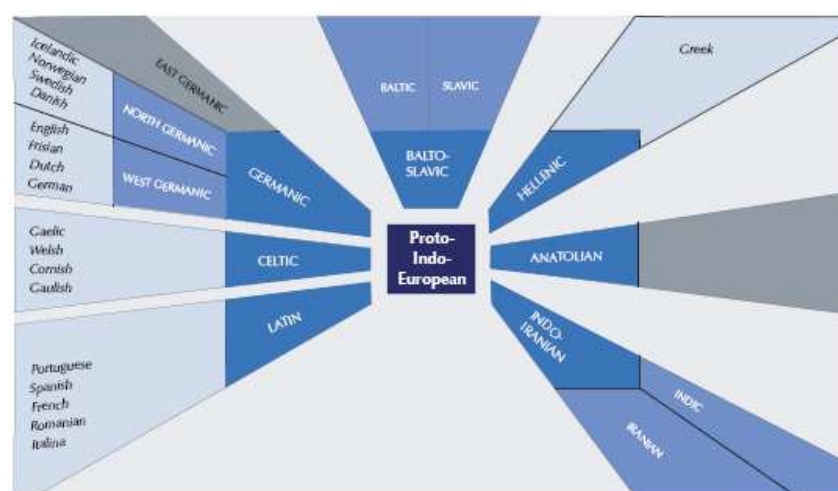
¹⁵ I submit that languages are quite osmotic (see also Chaudenson 1992, 2001) and their boundaries are less rigidly defined than linguists have suggested. Although some institutions try to erect official “language borders” and impose themselves as immigration and/or customs officers (as in the case of the *Académie Française*), the average speaker just ignores these artifacts and feels free to let xenolectal elements into their language variety. Even if they subscribe ideologically to a particular language they intend to speak, the evidence of varieties derided as *franglais* or *Spanglish* suggests that practice holds “open borders” and is more open to cross-language “migrations.” Such varieties represent, in the extreme, how competition and selection work in multilingual communities. Needless to say that there are ecologies, such as those where creoles developed, which strongly favor one particular language.

adoption of the language by the masses of the Celtic populations. If anything, we have no idea what the structures of creoles that survive will be like another thousand years from today. Nor can we surmise whether they will become so autonomous from their lexifiers as to develop their own separate standard varieties.

In any case, there is no doubt that the same kinds of shift and restructuring processes have been involved in the evolution of the Romance creoles and that of the Romance languages and their recent non-creole offspring. Specific studies of the respective restructuring of Vulgar Latin and colonial European languages into new varieties can only help us articulate the specifics of this approach more concretely, consistent with the ecologies in which the varieties have emerged. I will now show why it would not be far-fetched to argue that creoles are among the latest Indo-European vernaculars to have emerged.

4. The linguistic consequences of the latest Indo-European Expansion

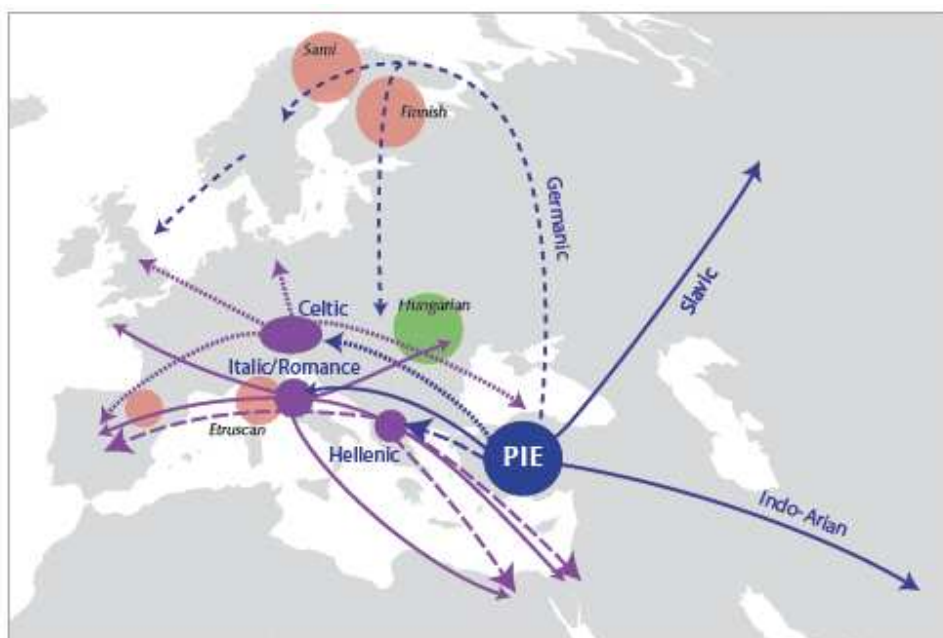
The foregoing discussion can be interpreted in the following ways. The dispersal of the Indo-Europeans from their homeland must have proceeded in more or less the same way as the settlement colonization of especially the New World, Australia, New Zealand, and Falkland Islands, not to mention the Atlantic and Indian Ocean islands around Africa, since the 15th century. The original populations need not have been politically and ethnolinguistically homogeneous, as well argued by Trubetzkoy (1939). They need not have departed from exactly the same geographical location either. Regardless of whether this lay in Asia Minor or Caucasia, it was a broad area. Neither need they have left the homeland at the same time, not any more than they could have taken the same dispersal routes. Nor did they reach their destinations at the same time. The histories of, for example, the Hellenic the Roman Empires, as well as that of the Germanic expansion westward and southward from Scandinavia, all suggest also that the original colonization routes led them to new dispersal points from which they spread in all sorts of directions. This dispersal must have occurred in a way that is not matched at all by the traditional cladograms of genetic linguistics, with rectilinear and non-intersecting distribution branches, even if they are adapted as in Map 4 to match the present geographical distribution of IE language families.



Map 4: A Geographically-Adapted Indo-European Cladogram

Colonial expansions, often associated with mercantilism (Cowen 2001), were hardly ever planned. They were not at all like military expeditions, orchestrated by a central senior officer,

although many of these were used to support them. For instance, no particular army-like general directed the Celts to be among the first to move out of the IE homeland and to wait for the Hellenics, the Italics, and the Germanics to come and colonize them, at different times, in those territories where they (the Celts) had settled much earlier, as illustrated by Map 5.



Map 5: The Non-Rectilinear Expansion of the Indo-Europeans (same as Map 3)

The history of the Indo-European expansion in Europe is one of population movements, therefore of language contacts, not only with the pre-Indo-European populations that had inhabited the territories they came to settle or control but also among themselves. As clearly shown by Heine & Kuteva (2005), one cannot account for the diversification of Indo-European languages and for their shared structures without factoring in language contact. This paper shows that the rationale for approaching the subject matter as I just explained is the same as for accounting for the speciation of some Western European languages into creoles and for how they variably share only some of their Indo-European structural features but not others, in ways that can be correlated with their contact histories.

We could thus also conclude that the recent colonization of the world since the 15th century is but an extension of the same Indo-European expansion that started 5,000-6,000 years ago. As in the case of the colonization of England by the Germanics, the recent colonization of the world by Europe started with small expeditions of pioneer colonists, who would be joined later by larger cohorts of immigrants who imposed their socio-economic systems, although these were adapted to local physical ecologies. In settlement colonies, they became majority populations, with the exception of plantation settlement colonies, in which the non-European labor populations (slaves or contract laborers) became majorities especially over the indigenous populations.¹⁶

¹⁶ As explained in Mufwene (2004, 2005a), the Roman colonization was not really on the settlement model. It was perhaps closer to the exploitation model that applied to Asia and Africa, although the Romans were more interested in benefiting economically from the imperial enterprise than in claiming political and economic control rights over every square inch of every colony. Rather, they developed networks of city

The particular experience of settlement colonies is interesting because it entailed language shift in favor of (one of) the exogenous ruling populations. However, the latter's languages won only Pyrrhic victories, modified as they were by the languages that they displaced. Just as Latin was restructured into the Romance languages, most of the West Germanic languages taken to England died (like several European languages in North America), being displaced by the language of the Angles, which immediately speciated into several British varieties and would continue to diversify into new ones outside the British Isles. Overall, in every extra-European settlement colony, the dominant European language has displaced not only indigenous languages but also other European languages with which it competed.

Scholars opposed to my perspective will want to capitalize on the fact that although they have evolved from the same colonial European koinés (Chaudenson 1992, 2001, 2003, Mufwene 2001, 2005a), creoles are structurally more divergent from their European metropolitan sources than their non-creole colonial kin (e.g. North American English varieties). In the first place, the reliability of such judgments depends on the kinds of varieties being compared. It is not so clear that structural differences are so strong between Cajun French, Louisiana French Creole, and Louisiana French, or between Gullah and Old Amish English, especially if one overlooks prosodic features. Be that as it may, the current literature has usually omitted to consider population structure as an ecological factor that can account for structural differences between the colonial vernaculars spoken by descendants of Europeans and those spoken by descendants of African slaves especially in the case of North America.

Like the indentured servants of the pre-independence period (e.g. the period preceding the American Revolution), the slaves shifted early to their masters' languages. As soon as they became the plantations' dominant populations, segregation was instituted, quite early in the 18th century, forcing them to interact and socialize more among themselves than with populations of European descent. As the proportion of the Bozal slaves kept increasing, more and more Bozals learned the European colonial vernacular from seasoned slaves, whose command of the language was already divergent, than from the original Black Creole speakers, whose competence differed little, if at all, from that of their White Creole counterparts. During this continual process of language shift, the colonial vernacular underwent more and more substrate influence and diverged increasingly to reflect this substrate influence, bearing in mind that the influences themselves were subject to competition and selection among the slaves (Mufwene 2001, 2003b).¹⁷

This situation is quite comparable to that of the gradual shift of the continental Celts to Latin as their vernacular. Being the majority populations increasingly communicating among themselves in the new, adopted vernacular, their Celtic linguistic habits apparently influenced the restructuring of Vulgar Latin into today's Romance languages, which are as different from Classical Latin as creoles are from the standard varieties of their "lexifiers."

There are very good ecological reasons why the colonial varieties spoken by descendants of Europeans diverge less from the metropolitan varieties than creoles do, assuming correctly, like Chaudenson (1992, 2001, 2003), that the divergence is generally a later development. As also

colonies administered by Romanized indigenous aristocrats, whom they rewarded well. This all shows that language dispersal does not proceed everywhere through a single population structure, suggesting that even today's pidgin and indigenized varieties of European languages may very well count as new offspring of Indo-European languages.

¹⁷ None of what I say here need be construed as a change of my position from Mufwene (2001, 2005a). Recall that influence need not be confused with origins of features. The nonstandard varieties of European languages that became colonial vernaculars were internally variable. The substrate languages influenced the selection of particular features, especially favoring those that were (partially) congruent with those already familiar to the learners.

observed by Chaudenson, most of the nonstandard vernaculars of the European languages that came in contact with each other are typologically more similar among themselves (as made more obvious by Heine & Kuteva's 2005 demonstration that Europe is an important linguistic area marked by convergence) than they are with the African languages. Equally important is also the fact that the European populations remained largely segregated by nationality until the early 20th century. Until then, they kept their national vernaculars and used the economically (and politically) dominant language only as a *lingua franca*.

Thus, the colonial English varieties now spoken by descendants of Europeans seem to have developed primarily among colonists from the British Isles, with only minimal "adstrate" influence¹⁸ from the other European languages that they displaced later. At the time of the shift in the late 19th and early 20th centuries, the adults must have gradually died out with their accents, just like many adult immigrants do today, while their children, through regular interactions with the children of native speakers (especially in school), acquired the dominant vernacular natively. This process, which can still be observed today among the non-Aboriginal populations of Australia (Clyne 2003), has kept adstrate influence to a minimum. In fact, it is still true of recent and current immigrant families in North America, as of anywhere else in the world.

The above explains why, in North America, it has become less and less common to speak of, for instance, German and Italian Englishes. The populations of English and non-English descents have increasingly blended to the point of reducing ethnic differences among them, at least among those who are not first-generation immigrants. Most of the linguistic peculiarities that justified those ethnic labels have been obliterated, while a few of them may have spread in general American English. Only varieties of the communities that have still not been integrated in the dominant population still carry such ethnic labels (e.g. Old Amish English) in some way comparable to regional labels such as Ozark and Appalachian Englishes. Yiddish English, associated with Jewish first-generation immigrants from Yiddish-speaking territories is considered moribund.

Interesting from this perspective is also the fact that 20th century African and Caribbean immigrants to North America have exerted no noticeable influence on the structures of African American English, largely because they have generally not settled in African American neighborhoods and have socialized with them in no more significant ways than they have with other Americans. When this has been the case, these immigrants' children have learned to speak AAVE natively. Caribbean immigrants who have settled in communities in which they either are dominant or constitute a critical mass have maintained their native Caribbean features, whereas their children have had to select between their parents' and American English features.¹⁹ The same observation applies to any ethnic community, unless it has been formed recently and just reached its critical mass.

Innovations generated by the internal ecology (i.e. the dynamics of both intra- and inter-dialectal variation within a communal system) continue of course, such as in the Valley Girl Talk in California, Hip Hop language among American teenagers, and Dread Talk in Jamaica. However, very little of this innovative speech has been motivated by contact with the languages of the recent

¹⁸ My use of the term *adstrate* here is just an unfortunate legacy of creolistics that could be done away with. It continues to suggest that substrate influence is from populations that are ranked lower while adstrate influence is from populations that are of more or less the same social stratum. Linguistically, the influences do not work in different ways, especially in the recent European colonial settings since the 15th century.

¹⁹ Although the phenomenon has emerged in another polity, London West Indian Patwa, which is not spoken by all offspring of Caribbean immigrants (even in those cases where the parents are Patwa-speakers), is just an instantiation of this selective process. London West Indian Patwa is in fact spoken primarily by those immigrants who do not feel integrated in the British social structure and use language as an identity marker.

immigrants. Inter-group variation within national varieties also persists, because it is determined by patterns of social interaction; schooling and the mass media have little bearing on it. Labov's (2001) discussion of the Northern Cities Vowel Shift also reveals another interesting aspect of how changes spread: only among people who interact with each other, in this case urban white populations, a reflection of the persistent ethnic segregation in the American population structure. All these differential evolutions underscore the significance of population structure (Mufwene 2005b) as an ecological factor. It determines not only who interacts with whom but also who accommodates whom and under what ethnographic circumstances.

This paper also makes more evident the fact that language shift, which has recently been associated with the demise of the ancestral languages of several indigenous and immigrant groups in European settlement colonies, has been a concomitant of the spread and diversification of Indo-European languages. From a longer perspective, this evolution has been in process since the first territorial expansion of Proto-Indo-Europeans in Asia and in Europe to the latest dispersal that has produced new colonial offspring of some of the modern Indo-European languages. Extinct languages have left their marks (substrate or adstrate influence) on those that they displaced them. A more accurate account of language vitality in genetic linguistics should thus provide a balance sheet of losses and gains, instead of capitalizing exclusively on losses and bemoaning loss of diversity and ignoring the emergence of new patterns of diversity (Mufwene 2003c, 2004, 2005a).

Interestingly, very few of the massive shifts from indigenous vernaculars to European languages have been observed in European exploitation colonies of Asia and Africa,²⁰ where the same languages have been adopted as official languages and as elite *lingua francas*. Despite the fact that the latter have indigenized, as evidenced by the growing literature on indigenized Englishes (see, for instance, the references in Bolton 2002, Kachru 2005) and "les français africains" (e.g. Lafage 1977, Manessy 1994, Manessy & Wald 1984), rare are the cases where Native Asian and African vernaculars are being driven out by the colonial European languages of their respective polities.

That Colored people in South Africa have appropriated Afrikaans as their vernacular is more a consequence of the dual colonization system in this polity, with the Afrikaners' socio-economic domination representing settlement colonization and the British the exploitation model. However, recent changing political tides are increasingly reverting the ethnographic status of Afrikaans to that of an ethnic language that is economically less rewarding, causing more and more Colored people to raise their children as native English speakers. Afrikaans may become one of the rare endangered languages with millions of speakers, reminding us that it is not so much the number of speakers in abstraction that determine the vitality of a language but how it negotiates speakers with the other languages it competes with and whether the proportion of children acquiring it as a vernacular increases or decreases.

The explanation of this differential evolution of colonial languages is largely ethnographic. In Asia and Africa, the colonial languages have typically been appropriated as *lingua francas*, whereas they have been appropriated as vernaculars in the settlement colonies of the Americas, Australia, and New Zealand. The extent to which the indigenous languages have been endangered or lost in the settlement colonies is covariant with the extent to which the indigenous populations have been exterminated (as in the Caribbean) or the extent to which the indigenous socio-economic system has been driven out and the Natives must function in the new socio-economic world order in order to survive. Likewise, the extent to which those who have shifted to the new vernaculars have influenced its structures depends largely on how early during the colonial rule (which is still in process in the settlement colonies) the relevant population had to function in the new socio-

²⁰ In the case of sub-Saharan Africa, Côte d'Ivoire, Gabon, and Mozambique are, to my knowledge, among the rare former exploitation colonies where large numbers of children have been reported to acquire French or Portuguese as their vernaculars, at least in the urban environment.

economic world order and use it for intra-group communication. Creoles are the products of situations in which language shift occurred early and segregation was institutionalized soon afterwards, favoring significant influence of the languages previously spoken by the African slaves, especially the Bozals of the late plantation societies, on the structures of their new vernaculars.

Creoles have emerged as distinct vernaculars with a high degree of vitality because the African slaves had to function quite early in the new socio-economic world order of settlement colonies. The early imposition of socio-economic segregation created an ecology in which the slaves socialized primarily among themselves and their colonial vernaculars could diverge structurally. The particular ways in which their populations grew, more by importation than by birth in the 18th and early 19th centuries, with more and more Bozal slaves acquiring the vernaculars from seasoned slaves who had xenolectal features, paved the way for substrate elements to influence the divergence patterns of their new vernaculars.²¹

At least in North America and Australia, the Natives were generally left on the margins of the new socio-economic world orders. Trade with them was carried in the indigenous languages, leading to the emergence of pidgin varieties such as Chinook Jargon, Mobilian, and Delaware Pidgin (Silverstein 1996). Although the later shift of Native Americans to English, in the 19th century, produced some sort of Native American English Pidgin (Mithun 1992), the indigenous languages have exerted even less influence on the structures of North American Englishes than continental European languages have. Gradual absorption by the dominant populations, marked by the absence of Native American neighborhoods in American cities (unlike the tradition of, e.g. Irish, Italian, German, and Black neighborhoods), led to the rapid dissolution of such transitional ethnic varieties, in the same way that Italian and German Englishes, for instance, have vanished.

Overall, we learn that vernaculars compete with vernaculars and lingua francas with lingua francas. What has prevented indigenous languages in Asia and Africa from being displaced by European colonial languages is in part the fact that in exploitation colonies the latter have functioned primarily as lingua francas, and as vernaculars only within a negligible proportion of the elite. Interestingly, the European exploitation colonization also produced or promoted the expansion of (new) lingua francas “lexified” by indigenous languages, e.g. Fanakalo (in South Africa), Hausa (in Nigeria), Kikongo-Kituba, Lingala, and Sango (in the central African region), Swahili (in eastern Africa), Town Bemba (in Zambia), and Wolof (in Senegal). Most of these function today as urban vernaculars.

At least during the colonial period, there was no competition between the indigenous and the European lingua francas. Quite a few lessons can also be learned in this case: 1) The European languages have been transmitted through the school system and have been associated with the intellectual elite. Their practice has been contained in a particular social class, thus lending more theoretical significance to the notion of ‘population structure’. This form of segregation has protected the indigenous lingua francas from their expansion. 2) The post-independence economic stagnation or demise experienced by most of the African countries has halted the expansion of European lingua francas, showing clearly that investment in a particular language can be assessed in economics terms of costs and benefits, although the degradation of the school systems takes part of

²¹ The combination of contact and segregation also accounts, with a dosage of their own socio-historical “ecological” peculiarities, for the emergence of mixed language varieties such as Michif (from French and Creek) and Copper Island Aleut (from Russian and Aleut). See, e.g. Thomason & Kaufman (1988), Golovko & Vakhtin (1990) and Bakker (1997) for informative discussions of their developments. Geographical and social isolation is a critical ecological factor bearing on the development of their structural peculiarities.

the blame in these particular cases.²² 3) To be sure, the degradation of the school systems can be blamed for the progressive indigenization of the *lingua francas*. This is a process that probably would have been more rapid if the languages had vernacularized and their transmission had depended more on naturalistic acquisition, through socialization and face-to-face interactions, like the transmission of the indigenous *lingua francas* and urban vernaculars.

These considerations prompt us to reexamine the past and think again over how Vulgar Latin spread, at a time when only a few privileged children could attend school in Europe. They also tell us why Irish English was late in forming, although English was introduced to Ireland, as a trade language as early as the 9th century. It is thanks to the potato plantations of the 17th century, under Oliver Cromwell, that Ireland would be colonized on the settlement model and English would spread informally, through naturalistic acquisition by the migrant workers. Indeed, the potato plantations gave to English an economic value that the school system had not succeeded in doing, not any more than it had done to Latin. This grassroots valorization spread English among the Irish faster than the school system had within the masses of the population. The trend resulted, on the one hand, in the indigenization and vernacularization of English and, on the other, in the gradual extinction of Irish. More or less the same process can be assumed of Vulgar Latin as it (rather than Classical Latin of the *Intelligentsia*) was valorized as the language of the new, Romanized socio-economic system, a language that would enable the subjects of the former Roman Empire to earn a better living.

Since European colonial languages have been maintained as official languages of their former exploitation colonies and as *lingua francas* of the *Intelligentsia*, we can perhaps surmise the following: Whether or not they will vernacularize and spread through naturalistic transmission among the masses of the population depends largely on whether or not they are considered important for regular, “blue-collar” jobs, which do not require high technical skills. (These are, incidentally, the only jobs accessible to the vast majorities of their populations.) So far, it is the indigenous *lingua francas* which are associated with such jobs. With perhaps the exception of South Africa, the economies of Sub-Saharan Africa are far from expanding, let alone involving the rural populations, which are still the majorities. The European colonial languages have undoubtedly indigenized, but they have hardly vernacularized. If anything, as argued in Mufwene (2004, 2005a), it is the indigenous urban vernaculars and regional *lingua francas* that are threats to the ancestral ethnic languages, as much as they all bear essentially lexical influence from the European languages.

5. Conclusions

Little needs to be added here that has not been said already in Part 4. If creoles have really developed in their own unusual or abnormal way, their different structures suggest that the ecologies of their emergence are far from being identical from one to the other. On the other hand, if we assume a uniformitarian position and acknowledge that they have emerged by the same restructuring processes that have often resulted in language diversification, then it is normal that differing ecologies will produce new mutually divergent language varieties, even if exactly the same languages are involved in the contacts. Local dynamics of competition and selection will favor different variants even from what may appear to be more or less the same feature pools. Thus,

²² This utilitarian explanation can explain, conversely, why the spread of English as a vernacular has progressed in multilingual places like Singapore: its association with the polity’s economic progress, favored by the small size of its population, has made English a more useful language. However, much more remains to be learned as Cantonese seems to have slowed down a similar spread of English in Hong Kong. Despite some general similarities, there are always local ecological specificities that must be factored in the language evolution equation.

creoles are not genetically unusual, nor abnormal, nor less natural. Instead, they are a precious opportunity for linguists to realize the extent to which language contact, subsuming also dialect contact but really based on idiolect contact, has been a critical catalyst in language change and speciation.

This article also shows that language diversification has typically proceeded hand in hand with language shift. Without invalidating the usefulness of the comparative method as a tool for determining the extent to which languages share forms and structures, this article shows that genetic creolistics can help us improve the practice of genetic linguistics and broaden usefully the scope of its concerns. This essay is not just about the diversification and structural relatedness non-creole languages, it is about all cases of language speciation, including those where creoles have emerged.

To the extent that contact, situated at the idiolectal level, is acknowledged as a critical ecological factor in the actuation of change, the distinction between externally and internally-motivated change becomes simply sociological, and the distinction between changes induced by contact and those independent of contact becomes misguided. Moreover, like evolutionary biology, genetic linguistics (which could also be called evolutionary linguistics) has everything to gain from being interested in issues of language vitality, which can then deal with the demise of languages by structural erosion or by language shift and with the emergence of new varieties. In all these cases of language evolution, the action of competition and selection among competing variants and/or systems is evident.

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