

## PERSPECTIVES

### **Language vitality: The weak theoretical underpinnings of what can be an exciting research area**

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As linguists theorize about language endangerment and loss (LEL), we must understand the big picture: the coexistence of languages in particular polities and how the competition that sometimes arises is resolved. Many concerns have been voiced about LEL since the early 1990s, but theoretical developments regarding language vitality lag far behind linguists' current investment in language advocacy. While discussing issues such as the failure to connect the subject matter to language evolution in general, the framing of LEL as deleterious almost exclusively to 'indigenous peoples', a lack of historical time depth, and the omission of the ecological factors in typical approaches to LEL, I argue that linguistics should theorize about language vitality more adequately than has been the case to date.\*

*Keywords:* language endangerment and loss, language vitality, language evolution, indigenous languages, language shift, colonization

**1. INTRODUCTION.** While terms such as *language endangerment*, *endangered languages*, *language loss*, or *language death* have typically been used with regard to the subject of language vitality, I have deliberately avoided them in the title of this article because they omit the big picture, viz., the coexistence of languages in particular polities and how the competition that sometimes arises is resolved. If we linguists hope to theorize about language endangerment and loss adequately,<sup>1</sup> we must also understand the other side of the overall picture, viz., the maintenance and at times expansion of some varieties into major languages. I have chosen to use the term *vitality* because it appears to be the umbrella term most suitable for enabling a broader discussion of the subject matter.

Since language revitalization involves service to the affected populations and a different kind of applied theorizing, I do not discuss it here, though some such endeavors may very well benefit from the following discussion. Overall, the success of such efforts depends largely on whether a population wishes to save their language (variety) from the threat of another or does not care. Populations have shifted languages several times in the history of mankind, as well noted by Dorian (1981), and some have benefited from the shift, as I show below. This history should prompt us to reframe some of the language revitalization discourse in terms of actual costs and benefits to the relevant populations, such as the ability to participate in the current socioeconomic world order as opposed to being marginalized from it (Mufwene 2016a).

Language documentation also has often been tied to language endangerment and language loss, but I have nothing to say about it in this article. Language documentation is about adequate data collection techniques in general, from which linguistics has a great deal to gain. Recent interest has prompted field researchers to improve their data collection techniques and to adapt them to specific situations, as clearly stated by, for instance, Austin (2016), Dobrin and Berson (2011), and Woodbury (2011). We can only

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<sup>1</sup> I use *theorize* in the meaning of developing a body of empirically grounded and verifiable hypotheses intended to explain why and how some languages become endangered, die, survive threats to them, or even thrive.

be grateful that concerns with language endangerment have led some linguists to frame field linguistics as an area that deserves theorizing about.

My focus here is on LANGUAGE ENDANGERMENT AND LOSS (LEL). Many concerns have been voiced about LEL since the early 1990s, especially the LSA symposium that resulted in the special issue of *Language* (68(1), 1992). But whether linguistics has benefited theoretically from this is another story. Michael Krauss (1992:9–10) concluded his contribution to the collective symposium article with an implicit comparison of linguists to environmentalists, who are concerned with endangered species. He exhorted us to react likewise to what has been characterized generally as a disaster for mankind. My reaction is to note that most environmentalists are informed by MACROECOLOGY, the subfield of ecology that investigates the sustainability of biological species within their habitats. They look into how changes in the latter, such as those induced by climatic changes or by human behavior, impact the vitality of the former.

I thus pose the following questions, among others: Can we say today that a similar research area has developed in linguistics, one that can inform our discourse on language vitality? Can we support empirically the claim that giving up an ancestral or ethnic language is as disadvantageous to the relevant population as damage done to our natural ecologies? In other words, is language shift as deleterious to the balance of human lives or to our social ecologies as, for instance, deforestation, poaching elephants, killing whales, and destroying corals in the ocean floor are to the equilibrium of our natural ecosystems? Is linguistic diversity as significant to our well-being as biological diversity?

More significantly for this article, can we explain to our satisfaction why and how languages die, in the same way that macroecologists can explain how human activities affect our universe negatively? Should we be content with blaming LEL on the European colonization of the world since the fifteenth century and on ‘globalization’, when evidence can so easily be adduced to show that these explanations are not sufficient and are sometimes even inadequate?

Below, I show that theoretical developments regarding language vitality lag far behind linguists’ current investment in language advocacy. The discourse on LEL begs more questions than is made evident by, for instance, Hill’s (2002) informative critique and by the commentators on her target article, or by Perley’s (2011, 2012) take on some aspects of linguists’ engagement. Issues arise from the failure to connect the subject matter to language evolution in general, in the sense that various changes have affected the practice and/or structures of languages because of the adaptations their speakers make in response to their changing socioeconomic ecologies (Mufwene 2001, 2002). Issues also arise from the framing of LEL as deleterious almost exclusively to ‘indigenous peoples’. This approach has prevented linguists from developing a big and diverse picture of language vitality around the world, including among nonindigenous populations, such as in European settlement colonies.

In fact, the typical approach to LEL in linguistics has suffered from lack of historical time depth, despite passing allusions to language loss in Europe before the fifteenth century. Additional concerns include the omission of the ecological factors that have favored not only the languages that have thrived but also those that have survived the threat of the expanding languages. The latter include Basque (in relation to the Latinization of Iberia), Pennsylvania Dutch (in relation to the expansion of English among non-Anglo European Americans), Gullah (contrary to claims since the late nineteenth century that its speakers have been shifting to its English acrolect; Mufwene 1997), and numerous small languages in sub-Saharan Africa that have survived their coexistence with other larger indigenous languages and with European languages (Lüpke & Storch 2013, Essegbey et al.

2015). I develop arguments against language advocates such as Crystal (2000, 2004), Nettle and Romaine (2000), Skutnabb-Kangas (2000), and Thomason (2015), who have generally been content with vague explanations of the causes of language loss, such as colonization, globalization, and even McDonaldization.

Regardless of whether we should all, as responsible world citizens, care about LEL, I think that linguistics should save itself some embarrassment by theorizing about language vitality more adequately than has been the case to date. Ecolinguistics as articulated by, for instance, Mühlhäusler (2003) is more an advocacy movement than something that sheds light on the dynamics that sustain or erode language vitality. It has dwelled more on the moral obligation that linguists owe to communities affected by LEL than on explaining what we should know about the phenomenon. The discourse on LEL raises the question of whether linguistics can invest itself in interventionism without bringing along the expertise it has developed on the subject matter.

Below, I discuss some of the questions and issues that deserve attention, subject to space limitations. I start with the question of how, in the first place, languages should be conceived of in relation to LEL.

**2. WHAT CHARACTERIZATION OF ‘LANGUAGE’ IS THE MOST RELEVANT TO LANGUAGE VITALITY?** How one reacts to LEL depends largely on which particular conception of languages one assumes (e.g. as systems) and whether this comes close to the folk characterization of a language, for example, *Navajo* and *Swahili* as, respectively, the particular ways the Navajo and Swahili people speak. By this perspective, *English* is the way that, historically, the people of England, the land of the Angles, spoke, before it spread far and beyond its birth place (Mufwene 2001). Even though nonlinguists may also think of the ways they speak as indexing their ethnic or national identity, how many of them think of their languages as systems?

To be sure, conceiving of languages as systems makes it convenient to advocate the position that every population has developed in their language their own ways of packaging information, which in some cases are not replicable in other languages. This essentially typological approach (underscored by, for instance, Hale 1992, 1996) can be tied to a weak or strong version of the Sapir-Whorf hypothesis about languages as expressing culture-specific worldviews.<sup>2</sup>

However, one can argue that population-specificity in the ways different populations package information is not incompatible with thinking of languages as communication practices. Although speakers communicate by applying morphosyntactic strategies they have developed or learned, they can also adapt them to new situations or innovate new ones. Systems emerge from repetitions in the practices of individual speakers, which converge into communal norms from the mutual accommodations speakers make to each other's ways of expressing meanings. This implies that the culture-specific ways of packaging information and the associated worldviews are not immutable. Accordingly, some people may not worry about the loss of a particular language, because it is one communication tool or technology (Mufwene 2013) being replaced by another that meets their current needs.

<sup>2</sup> According to the strong version of the hypothesis, people package information the way they do in their language because they think and process their knowledge differently from other populations. The weak version makes no claim about the level of thinking and processing information, as this may be universal and in a language that bears little resemblance to spoken and signed languages. Differences arise during the translation from the language of thought to that of expression.

Whether one assumes that languages are systems or practices also influences the answer to the question of when a language can be declared dead. Those who conceive of them as systems may argue that a language dies with its last speaker or signer, because nobody knows the relevant system any longer. However, if one thinks of a language as a practice, the ‘last speaker’ would not have had anybody else to practice it with! Even if there are a handful of individuals remaining that still know the language, it may be considered dead already if they do not interact with each other (in that language). Whether attrition has eroded their current knowledge is really irrelevant. One can thus argue that knowledge of a language is not the language itself. For instance, there are experts that have extensive knowledge of Old English, but this language (variety) is definitely already dead, because the experts that know its system do not communicate in it.<sup>3</sup>

Some others may still argue that, because the knowledge of those that remember a language may be used to revive it if a favorable population structure arises, the language is still alive, albeit in a suspended state. However, since the verb *revive* presupposes a state of dormancy, why not concede that for all intents and purposes the language is dead? Otherwise, one might as well argue that because some isolated individuals ‘know’ how Hittite was spoken, it is not dead, at least not like lost (unwritten) languages known by no expert.

The question of what conception of language matters is one that arises because speakers may well treat languages first as communication tools, which they can stop using in favor of economically or politically more advantageous alternatives, while still recognizing that a language reflects one’s history and culture. Not using a particular language, whether due to lack of opportunities to practice it or because it has become disadvantageous, can cause its attrition and eventual loss. One may thus argue that this is what happens naturally to any tool/technology that is no longer used (regularly), regardless of how one connects with it emotionally. There are many different ethnic and cultural identity markers (see below), so losing one does not necessarily entail losing the others, as may be observed in several diasporic populations, for example, Chinese, Indian, and Jewish. (See, for example, Spolsky 2014, 2016 in the latter case.) As much as one may regret losing part of their tradition, language shift can therefore be interpreted as an adaptive response to the changing socioeconomic ecology (Mufwene 2001).

In the same vein, some Africanists such as Lüpke (2015; see also Lüpke & Storch 2013, Mc Laughlin 2015) have observed that many individuals, especially in urban centers, claim membership in ethnic groups whose languages they do not speak (fluently or natively); therefore language is often not the critical marker of ethnic/cultural identity. Individuals may claim to be members of particular ethnic groups simply because they still adhere to other cultural, nonlinguistic practices, such as diets, dress styles, and kinship systems.

All of this can be seen as evidence against the position that losing one’s language is tantamount to losing one’s cultural singularity. Additional evidence comes from the literature on the indigenization of European languages in former European exploitation colonies in Africa and Asia. For instance, Kachru (2017) argues that English there has been adapted to suit the communicative needs of its new speakers. This indigenization

<sup>3</sup> It is therefore legitimate to ask whether Classical Latin is really dead, because it continues to function as the lingua franca of the Vatican. Or should vernacular use be one of the criteria for determining whether a language is dead? By contrast, there are language varieties that have been spoken for generations without (a critical mass of) native or vernacular speakers who regulate the emerging conventions, such as the indigenized varieties of European languages in Europeans’ former exploitation colonies of Africa and Asia. Norms are not necessarily set by native speakers.

process is also evident in the so-called ‘native Englishes’ of the Americas and Australia/New Zealand, which reflect their emergence in natural and social ecologies outside of England (Mufwene 2009). In fact, we should have learned the lesson earlier from creole-speaking societies where both language and culture shifts produced new, syncretic phenomena. These show that language and culture shifts do not go hand in hand, nor are they coextensive with assimilation to the economically or politically dominant population.

In the bigger picture, nobody is wedded to their ancestral cultures in the same way they are to their genes, inherited from their ancestors, as is evident, for instance, in the fact that the majority of European Americans speak English as their vernacular. They differ in this respect from their immigrant ancestors, who spoke various continental European languages. Culturally, they do not feel as European (if at all) as their immigrant ancestors did any number of generations ago, who identified themselves as German, Italian, French, and so forth and lived in segregated national communities. Labels such as *Italian-American* or *German-American* today have to do more with genetic ancestry than with cultural retentions.

One can ask the question of whether a language is a communication tool or a marker of ethnic/cultural identity, but the answer is this: it is BOTH, although its function as an identity marker is a consequence of the fact that it is used for communication among members of a particular population. As previously noted, other cultural artifacts such as religion and dress traditions index social identity, and the specific way in which those who have shifted languages speak the new one can also mark a particular social identity. So a population can lose their language without *ipso facto* losing their cultural singularity.

**3. HOW NOVEL IS THE PHENOMENON OF LANGUAGE LOSS?** In order to address the question of the novelty of language loss, we must also ask: Which is the oldest language spoken today?<sup>4</sup> Is it older than 3,000–5,000 years old? Chinese may be the closest candidate, with written evidence of its existence appearing to date from the second millennium BC. Greek may be another guess, since its written history goes back to the fourteenth or fifteenth century BC, with Mycenaean Greek (Brian Joseph, p.c., 11 February 2016).<sup>5</sup> English, which is today the world’s foremost lingua franca, dates only from the seventh century in the form of Old English. The Romance languages are just about as old. We have no sense of the specific ages of most Indo-European languages, though they appear to have emerged by speciation after the dispersal of Proto-Indo-Europeans from their homeland about 6,000 years ago. The story is similar for Bantu languages, which must also have emerged by speciation after the dispersal of Proto-Bantu from its homeland about 3,000 years ago.

What is noteworthy is that the whole history of mankind since the exodus out of East Africa appears to have involved several layers of colonization, language contact, and language competition<sup>6</sup>—from the emergence and evolution of English and the Ro-

<sup>4</sup> I beg the reader to interpret this question as referring to the time when a language emerged as different from both its parent and its sister languages, such as English, which began with the emergence of Old English due to contact among primarily Germanic languages brought to England and has since been considered a sister of other West Germanic languages such as Dutch and German.

<sup>5</sup> These speculations, based on the written record, are obviously question-begging, because we have no sense of how long the languages had been spoken before their speakers either invented a graphic system or borrowed one from another population, like the Greeks from the Phoenicians. Still, they give us a sense of how shallow the histories of the languages spoken today are relative to the history of *Homo loquens*, apparently younger than *Homo sapiens*.

<sup>6</sup> I use the term *competition* here as in evolutionary biology, in reference to the unequal chances of survival that species (the counterparts of languages) have in a particular ecosystem. Languages do not vie for selection

mance languages, all the way to the more recent development of related creoles and pidgins in some colonies relying on slave and contract laborers. A number of these resulted in language shift on the part of the economically or politically weaker populations. For instance, the Celts of southwestern continental Europe gradually shifted to Vulgar Latin, first in the emergent Roman-style centers, and from there the emergent neo-Latin varieties spread to the rural areas (de Landa 1997). These new vernaculars would eventually compete with each other as the new nation-states were forming, with the stronger ones, such as the Parisian French variety, displacing their competitors. In some other cases, the competition has continued to date, such as between Castilian and Catalan in Spain.

Curiously, no such Latinization occurred in England, although it was also a province of the Western Roman Empire and was abandoned at the same time as the southwestern continental provinces (fifth century). Also, Latin's spread in the continental provinces seems to mostly have occurred after the collapse of the Western Empire, whereas it barely prevailed as an important colonial language in the Eastern Roman Empire, which outlasted the Western by another 1,000 years. It has been argued that the status of Greek as the elite *lingua franca* in the Eastern Empire, until the prevalence of the Ottoman Empire, is what kept Latin from spreading there. However, as prestigious as Greek was throughout the Middle Ages, the Hellenic family of languages, quite small, is in no way the counterpart of the Romance family. These are all interesting cases of differential language evolution that are awaiting explanations.

Equally noteworthy is the fact that Germanic populations colonized both England and Gaul around the same time, but while England would gradually Germanicize linguistically (with the emergence and spread of English), in Gaul the Frankish invaders would instead be Latinized. Likewise fascinating is that while the Arabs and Muslim Moors ruled in parts of Iberia from the seventh to fourteenth century, Arabic has generally not survived in Spain, although there are some traces of Arabic influence on Spanish (a.k.a. Castilian). Despite the *-arabic* part of the name, Mozarabic is a Romance language variety. In addition, throughout this history of layers of colonization, language shift, and the emergence of Portugal and Spain as separate nation-states, Basque has survived in Iberia, while the surrounding Celtic languages have died.

Comparisons of these histories of differential language evolution with the more recent cases of language competition would be quite informative in at least two ways: (i) Is the claim that indigenous languages have been dying today at an unprecedented rate (e.g. Crystal 2000) relative to the general speed of changes at our time? Could such claims have been made earlier in human history? (ii) What is different, and what is the same, regarding language shift and language death in comparison with the older instances of colonization? This question is particularly relevant to explaining why the few African languages that have died were actually in competition with other indigenous languages, not with the European colonial languages (Tosco 1998, Batibo 2008). Eco-

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any more than they can engage in wars with each other. Titles such as *language wars* (e.g. Calvet 1998, Hitchings 2012) are misleading. Languages are often not valued equally in multilingual societies, where one may be preferred or favored over others that are considered disadvantageous economically, politically, or for any other reason (Mufwene 2001, 2008). For instance, English has evolved into the dominant language of scholarship today because, among other important reasons, some of the best institutions of higher education and research centers are in the United Kingdom and the US, many modern leading scholars have written in it, most of the best scholarly journals have been published in it, and there are many more scholars who read it than any other language. No war need be invoked in this case. A feedback loop has emerged that favors English over other scholarly languages so strongly that even countries that are officially not Anglophone publish journals in English or encourage publications in it. And even linguists who do not use English as a vernacular and argue against its dominance publish in it nonetheless.

conomic power does not always go hand in hand with political power, which in some cases has exerted no influence on the vitality of languages.

It is intriguing that language activists have been more interested in correcting evolution than in seeking to understand it from a historical and comparative perspective. There is, of course, nothing that suggests that we should accept the current processes of LEL simply because such evolutions have happened several times before and the affected populations have survived. But one can argue that the Celtic populations that shifted to Latin or English have ultimately benefited from the shifts. Many of their descendants have participated successfully in the economic and political systems that developed in their respective countries, which function in the dominant non-Celtic languages they now speak. They subsequently contributed to spreading their new languages (viz., English, French, Portuguese, and Spanish), however difficult the transition must have been at the time of language shift.

I agree that we do not have to accept this particular evolution of things any more than we have accepted invasive deleterious biological species in some parts of the world. However, having a historically informed perspective would help us think of the proper ways to correct some current evolutionary trajectories. As we know, Ireland has not succeeded in revitalizing Irish after over a century of teaching it in school and a few generations of Gaeltachtaí experiments, whereas Quebec has succeeded in revitalizing French in just about half a century by investing their economic system in support of the language. This success story is also shared by the Afrikaners, who in the late nineteenth century invested not only in the school system but also in their economy to revitalize Afrikaans, felt to be endangered by English at the time (Broeder et al. 2002).

A better understanding of the history of differential language evolution should help linguists articulate approaches to language revitalization that are more likely to succeed. Still, we also have the responsibility to ensure that simply 'reversing language shift' (Fishman 1991) and doing no more will not ultimately make the relevant population maladaptive, if the approach succeeds at all. If we prescribe bilingualism, we must also show how it can work with, for instance, Native Americans, when it did not with European Americans, who shifted to English earlier. Should Native Americans be forced to remain on their reservations in order to maintain their languages, even if this would prevent their cultural assimilation and sustain their marginalization from the dominant, nonindigenous socioeconomic world order?

**4. GENETIC LINGUISTICS AND LANGUAGE LOSS.** There is another evolutionary aspect that should receive more attention with regard to LEL. Genetic linguistics is not only about genealogical relations among languages but also about language speciation. If current hypotheses about proto-languages are correct, the number of languages in human history has been increasing, from a very small number tens of thousands of years ago to the 7,000 or so languages spoken around the world today. The continuous speciation is associated with population movements to places that sometimes were already inhabited, as in the cases of the Indo-European and Bantu expansions. We can thus assume that contact with at least the more indigenous populations played a role in the differentiation process.<sup>7</sup>

<sup>7</sup> Unfortunately, Indo-Europeanists have rarely talked about the latest wave of the IE expansion since the fifteenth century (Mufwene 2005, 2008), which has resulted not only in IE languages becoming dominant vernaculars in the Americas, Australia, and New Zealand but also in the emergence of several creoles, especially around the Atlantic and in the Indian Ocean, and numerous expanded pidgins in the Pacific.

As we are also reminded of by the emergence of English and the Romance languages, contacts among languages of the same larger genetic family (specifically, the Indo-European family in this case) have occurred too. As discussed above, these contacts produced some casualties, viz., the extinction of several Celtic languages in particular. So, genetic linguistics, which so far has contributed almost nothing of significance to the discourse on language endangerment, suggests that we look at language speciation and language death as processes that are sometimes concurrent.

Perhaps influenced by genetic linguistics, the discourse on language endangerment has said nothing about several new language varieties that have been emerging as a consequence of the European colonial ventures since the fifteenth century, especially creoles but also so-called ‘intertwined languages’, such as Michif and Copper Island Aleut. It appears that we may learn a great deal from balance sheets of births and deaths of languages not only during the last half-millennium of population movements and language contacts but also during the preceding periods. This kind of knowledge would help us assess from a historical perspective whether language shifts have typically been deleterious to the affected populations, notwithstanding the difficult challenges of the transition periods.

Although no one should hesitate to condemn the atrocities of enslavement, indentured servitude, and contract labor that are associated with the emergence of creoles in particular, one must wonder whether these new vernaculars as the outcomes of language contact were necessarily maladaptive. Slavery was indeed deleterious, but was language shift also harmful under the circumstances? Could the relevant populations have survived their cruel experiences better by sticking to their substrate languages? In fact, could the plantation population structure have sustained the substrate languages? From the point of view of adaptation, and overlooking the independent disadvantages of discrimination against them, did the slaves and contract laborers respond less adaptively to the socioeconomic pressures of, say, the Americas than the continental European immigrants who also shifted to the economically and politically dominant languages of their new polities? More breadth in dealing with LEL will enrich our theorizing about the subject matter.

**5. INDIGENOUS PEOPLES AND LEL.** Another thing to consider is that the discourse on LEL may foster the false impression that only indigenous peoples in colonial settings have been affected by these processes. Yet, as noted above, a careful examination of language contact and competition in, for instance, the Americas leads to the conclusion that in the period covered by the relevant literature, viz. the twentieth century, Native Americans have been the last to join the bandwagon of language shifters, barring the more recent immigrants. This fact is revealing about the impact of population structure on language vitality. Population growth (thanks especially to immigrations from the Old World) and the emergence of new socioeconomic world orders in the Americas have ‘minoritized’ Native Americans, who are now among the smallest minorities. (For instance, even with all of the nations or ‘tribes’ in each country combined together, they constituted 2% of the population in the United States in 2014 and 4.17% in Canada in 2011.) These processes have also marginalized Native Americans politically and economically.

To be sure, like Australian Aboriginal languages, several Native American languages must have died in the early stages of colonization, as the populations of their speakers were decimated by germs and ills brought from the Old World (Crosby 1992) and by the genocides committed in the Spanish colonies especially (de las Casas 1992 [1552]). Native Americans must have gone through another experience of language shift and

loss during the nineteenth century, at least in North America, when European immigrants wanting more land claimed some of their reservations, thus forcing some of them to migrate to other reservations, which became multilingual, and the languages competed with each other (Banner 2005).

But the scenario of the loss of Native American languages discussed the most in the literature over the past two and a half decades and associated with the prevalence of European languages is quite different. It has to do with Native American children attending American boarding schools and being forced to speak English only (Voegelin et al. 1967) and Native Americans migrating to the city from the reservations and assimilating to the new socioeconomic world order.<sup>8</sup>

The lure of the new socioeconomic world order outside the reservations appears to be a more critical factor in the endangerment of indigenous languages than the boarding schools. To be sure, as Perley (2011, 2012) explains, schools near and on the reservations play an important role in spreading English. However, he also shows that not all children are doing the same thing: some have chosen the path of bilingualism. No one knows whether this practice will last, though, since the reservations offer no sustainable modern economy and there is obvious pressure to escape poverty by competing in or assimilating to the socioeconomic order outside the reservations, as in the case of the Hopi youth discussed by Whitely (2008).<sup>9</sup>

What is particularly significant in the latter case is that non-Anglo European Americans went through similar trajectories of language shift earlier, with children attending Anglo schools and choosing either not to speak their parents' heritage languages or not to pass them on when they became adults and raised families of their own. The pressures that led European Americans to give up Irish or their continental European languages are similar to those experienced by Native Americans who have been shifting to English, viz., pressures to adapt to and survive in the dominant socioeconomic world order.

We certainly must remember that, from the point of view of indigeneity, Native Americans are the last group to have joined the language-shift trend. The explanation appears to lie in the fact that they are the last segment of the national populations of the Americas to partake in the prevailing socioeconomic world order and to feel the pressure to function in its language. In the case of the Americas and the Caribbean, the Africans and the European indentured servants were the first to shift languages.<sup>10</sup> They had no choice, as they had no economic autonomy. Continental Europeans shifted when their parochial national economic systems were no longer competitive with the Anglo system, which was also backed by the political system. It appears that, generally, those

<sup>8</sup> Based on Leap 1993, the success of boarding schools in transforming Native American children into English-only speakers has been exaggerated. The children were apparently under pressure to speak their mother tongues when they returned home on vacation, and they often managed to speak them secretly among themselves at the boarding schools, if they found another child speaking the same indigenous language. This does not seem to be different from the experience of students who (like me) attended select boarding schools, taught in the European colonial language, in what was then the Belgian Congo and perhaps elsewhere in colonial Africa.

<sup>9</sup> This is a linguistic experience comparable to that in the Irish Gaeltachtaí, which the younger people leave for better economic opportunities in places where English is spoken (Carnie 1996).

<sup>10</sup> In the case of the enslaved Africans, one must factor in the important role of the founder effect, although the Africans eventually became the majority populations in the rice fields and sugarcane plantations (Mufwene 2008). The Creole slaves of the homestead phase had already adopted the European colonial languages as their vernaculars, and they functioned as the linguistic models for the Bozal, that is, African-born slaves who arrived later. The plantation population sizes also grew incrementally, owing to limitations of financial capital for economic growth. I say more about the enslaved Africans below.

with the weakest economic alternative, due perhaps to the size of their communities, assimilated first, with the French, in Louisiana and especially the maritime provinces of Canada, appearing to shift last.<sup>11</sup> As noted above, Quebec managed to reverse the assimilation trend by investing the economic machinery in the language revitalization movement. This kind of engagement does not seem to be possible in the other North American Francophone territories.

In the US, the case of Native Americans migrating to the city is different from that of, for instance, Hispanic immigrants, who can live in Hispanic neighborhoods in which they can continue to practice their heritage language for a while. This is actually similar to what continental European immigrants did before the gradual racial integration of European Americans brought their residential segregation by nationality to an end.<sup>12</sup> American cities have no Native American neighborhoods. Even if they did, they would not be able to sustain the vitality of the Native American languages, which would be competing against each other, any more than the racially segregated plantations that produced creoles could sustain the ancestral languages of the enslaved Africans. Societal multilingualism is one of the factors that expedited the death of African languages in the European (plantation) settlement colonies.

What linguistics has missed by not adopting the kind of broader comparative approach advocated here is the challenge of tough questions about what is different and what is similar across the range of these situations that have led to language shift. Explanations such as that Native Americans gave up their languages because they lost pride in them are literally condescending, as they suggest that Native Americans really want to be like European Americans. They do not tell the story about whether Native Americans may despise (European) American customs and to what extent.

Such accounts are reminiscent of the literature that, before Labov & Harris 1986, argued that African American Vernacular English (AAVE) would disappear because more and more African Americans were attending school with White Americans, interacting more frequently with them, and accessing jobs that required White middle-class English. That scholarship overlooked the role of AAVE as an ethnic identity marker and the fact that the American population structure, still segregated at least according to race or ethnicity, sustains sociolectal diversity.<sup>13</sup> (See also Labov 2010.)

Relevant to this section, particularly from the perspective of a Native of a former European colony, is also the absolute use of the adjective *indigenous*, in the phrases *indigenous languages* and *indigenous peoples*, as if the adjective were synonymous with *non-European*.<sup>14</sup> Cementing the semantic shift of a word whose original meaning was

<sup>11</sup> I have been reminded by Brian Joseph (p.c., 11 February 2016) that there are ‘pockets (enclaves) of German speakers in Wisconsin and Texas, of Czech speakers in Texas, of Dutch speakers in Michigan, and so on, mostly elderly speakers’ who are still holding on to their languages. These apparent exceptions illustrate the fact that communal language shift proceeds gradually, but do not controvert the fact that non-Anglo European Americans engaged earlier in the process of shift to English.

<sup>12</sup> Migrations to the city are also a factor in the erosion of the critical mass necessary for maintaining the national European languages in rural areas, as well explained by, for instance, Dubois (2014) for Louisiana’s Francophones.

<sup>13</sup> That literature also confused interactions in the work environment with the kind of socialization in which speakers may feel pressured to use one language (variety) more often than another as a vernacular. North Americans still socialize predominantly along ethnic or racial lines. As made evident by Labov (2001), for example, the Northern Cities Vowel Shift spreads not only from city to city but also within the White American population. See also Cukor-Avila & Bailey 1996 and Wolfram 2000 for the role of race in maintaining linguistic differences.

<sup>14</sup> I am indeed reminded of the time when the Belgian colonizers used to refer to the Natives in the then-Belgian Congo derogatively as *indigènes*.

'native to a particular territory', even the United Nations and UNESCO have adopted it in their discourse on LEL, as if the world could be divided between, on the one hand, Europe, where there are supposedly no indigenous peoples, and, on the other, the rest of the world, especially the former European colonies, inhabited first by indigenous peoples. Isn't there a part of the world where people of European descent may be considered indigenous? Shouldn't non-Europeans who have migrated to Europe consider the locals indigenous?

To be fair, the original meaning has not been abandoned, since there are uses that are still associated with the relativistic meaning of the term. It is nonetheless useful to underscore the fact that the absolute usage of the term has implications for our engagement as linguists with explaining how and why some languages die, while others are maintained and sometimes spread demographically (and geographically). Too narrow a focus prevents us from accomplishing this expectation adequately. From a historical perspective, Europe appears to have lived earlier the current experience of populations indigenous to former European settlement colonies, which partly explains why only 3 percent of the world's languages are spoken in Europe today.<sup>15</sup> Comparisons between the European experience of language loss and what has been going on in the Americas and Australia in particular would certainly help answer in a more varied way the question of how and why languages die, as well as whether the process is always deleterious to the affected populations.

When we consider other parts of the world, such as Africa and China, another interesting question arises, viz., whether indigeneity is not a matter of degree in the first place. For instance, in spreading eastward and southward out of their homeland in the Cameroon-Nigeria border area, the Bantu settled territories then inhabited only by the Pygmies (geographically closer to them) and the Khoisans (farther east and south). Relative to the European colonizers, the Bantu populations are now considered indigenous to territories where the Bantu languages are now spoken. But the Pygmies and the Khoisans have every right to claim that they are more indigenous (Mufwene 2001). I was reminded of this recently by a Khoisan woman in Cape Town, South Africa, as she reacted to a claim by Mr. Julius Malema, leader of the Economic Freedom Fighters party in South Africa, that the Afrikaners were not indigenous to South Africa.<sup>16</sup> According to her, the Bantu, non-Khoisans, are not indigenous either.

It is necessary to recognize the relevance of migrations to the locations of various populations around the world today: there will always be some population(s) everywhere that can claim to be more indigenous than another, because they settled there before the other(s). Thus the Celts can claim to be more indigenous than the Germanics in the British Isles. The point is that our theorizing about LEL will not benefit much from a discourse that is informed almost exclusively by the European settlement colonization of the Americas and Australia during the last half-millennium.

<sup>15</sup> Another part of the explanation may of course be that Europe did not start with as many languages as the populations in the worldwide belt between the tropics, where, according to Nettle (1999), the greatest linguistic diversity is found today. However, Europe has experienced several layers of imperial expansions over the past 3,000 years, which, if they had consequences similar to that of the Western Roman Empire, for example, would have aggravated the situation. Indo-Europeans either assimilated or killed the more indigenous peoples in the territories they occupy today.

<sup>16</sup> I argue below that Afrikaans is nonetheless indigenous to South Africa, where it emerged by speciation away from Dutch. It spread to parts of Namibia and Botswana, and to Patagonia (in Argentina, where it is now dying), but it is otherwise spoken nowhere else in the world as a communal vernacular, not even as a lingua franca, if we can ignore the possibility of such communities emerging in Australia, where close to 1,600 Afrikaners immigrated in the 1990s (Wikipedia, accessed 17 September 2016).

But while the adjective *indigenous* is useful when used relativistically in reference to what has been happening in a particular territory or has affected particular segments of its overall population, it may be a barrier to understanding the larger picture of the processes of LEL. In the case of the US, for instance, the exclusive focus on Native Americans has prevented linguists from invoking in their explanations the power of the socioeconomic assimilation process that affected the enslaved Africans and non-Anglo Europeans before the Native Americans. Within the proposed broader comparative approach, prestige and pride would probably not have been proposed as part of the explanation for LEL among Native Americans.

**6. CAUSES OF LANGUAGE LOSS.** The causes of LEL are not always or necessarily those that have been invoked most often. They are diverse, though not necessarily mutually exclusive. Globalization, which has so often been invoked over the past two decades, is not as significant a factor as has been claimed in the discourse on LEL. Local interactional dynamics within specific population structures, subsumed by the umbrella term *ecology of language* (Voegelin et al. 1967, Haugen 1972), appears to be the most significant factor.

**6.1. SMALL POPULATION SIZE.** The number of speakers is often referenced in explaining why the language of a particular population is endangered: a population that is in the minority cannot stand up to the pressure from the numerically dominant population. At face value, the argument sounds convincing. In the last half-millennium, the Europeans have become the overwhelming majority in their settlement colonies, other than those whose primary economy relied on plantations using enslaved or contract laborers. They reduced the Native Americans and the Australian Aborigines to demographic minorities. These lopsided demographic disproportions have worked against the Natives.

This argument does not explain, however, why in plantation settlement colonies, where the enslaved or contract laborers became the overwhelming colonial majorities, the laborers shifted to the economically dominant European languages.<sup>17</sup> The usual argument based on the multitude of languages among the dominated population does not provide a sufficient explanation, because this multiplicity of languages was not found in Hawaii, where the Japanese, Chinese, Korean, and Filipino contract laborers were not even mixed together (Mufwene 2008). Unlike in the Caribbean and Indian Ocean, the experience of contract labor did not obliterate ethnic distinctions among the workers. They lived in separate ‘houses’, continued to speak their heritage languages (or lingua franca in the case of the Filipino) and received instructions for work in them (through the foreman), and used pidgin when they crossed ethnic boundaries. Nonetheless, they eventually shifted to English, modifying it into Hawai‘i Creole English.

The population-size argument leaks even more when one ponders how, for instance, English became the dominant language among European Americans in the case of the US, where those of English descent are a minority, estimated at 15–20% of the total European American population. Of course, one must consider the rate of overall population growth, part of which was contributed by massive but incremental immigration from continental Europe during the nineteenth century, after American English was already entrenched as the vernacular of the former American English colonies. The overall population structure also prevented the continental European immigrants from

<sup>17</sup> The fact that they modified the European languages into creoles is no more significant regarding language vitality than the structural divergences that produced American and Australian Englishes, Québécois French, and Brazilian Portuguese, among other colonial varieties.

forming an effective unified majority in relation to the Anglos, because they lived in segregated national communities at that time. Although their parochial economic systems helped them maintain their national vernaculars, sometimes into the twentieth century, at some point their gradual assimilation to the Anglos' more successful economic and political structures had to result in their Anglicization (Mufwene 2009). The founder effect was more significant than their eventual demographic majority.

The Africanist perspective, as summarized by especially Lüpke and Storch (2013), is that nothing like this happened in Africa. The indigenous African majority is certainly relevant, but they are societally even more multilingual than continental Europeans were in the US. Linguistic diversity therefore would seem to have favored European languages, but it has not had the result seen in the US. The reason may well be that, like Native Americans and the Australian Aborigines until recently, the overwhelming majority of indigenous Africans have not really partaken in the socioeconomic world order introduced by Europeans. The vast majority of Africans who found employment were engaged in manual work, which they performed in indigenous *lingua francas*. Only a small proportion of them were fortunate enough to receive the kind of schooling that made them competent in the European colonial languages and helped them compete for the fewer white-collar jobs available. Even so, the European-style formal economic systems have either stagnated or collapsed (with unemployment rates often above 50%). These circumstances have eroded the attraction of European languages, which are also perceived as tools of exploitation. The extended-family system also has played a significant role, maintaining the connection of educated and affluent members with less affluent and less- or noneducated relatives, with whom they socialize in indigenous languages. The maintenance of cultural traditions, which are performed in the indigenous languages, is also a nonnegligible factor.

One may argue that in Africa the cards were already stacked against the European languages during the colonial period. The number of European colonizers was very small in the exploitation colonies, even in comparison to the many small indigenous ethnic groups of fewer than one million people. Although we must acknowledge that a similar disproportion did not prevent Latin from evolving gradually into the dominant languages of today's Romance-speaking Europe, these lopsided demographics justified the institution of 'colonial auxiliaries' in Africa.

Indigenous colonial auxiliaries were trained to act as intermediaries and interpreters for the Europeans (Austen & Derrick 1999, Lawrence et al. 2006), since the Europeans did not intend to share their languages with the overall indigenous populations in their exploitation colonies. Although several of the Europeans learned some indigenous languages and pioneered African linguistics, they generally relied on these auxiliaries. The European languages were in fact superposed above the indigenous vernaculars to serve nontraditional communicative functions, such as in the colonial administration, in the higher level of the judicial system, at the postsecondary level of formal education, among the officers of the colonial army, and in the white-collar sector of the European-style formal economy. The Native auxiliaries held low-ranking clerical positions in the colonial administration, served as petty officers in the police force, or worked as teachers in primary schools. They continued to speak their heritage languages as vernaculars and used the (emergent) indigenous *lingua francas*, along with the European languages, to interface between the Natives and the colonizers.

After independence, the most successful of the former colonial auxiliaries stepped into the shoes of the colonizers, kept basically the same socioeconomic structures, and used the European languages, now maintained as official languages, for the same com-

munication functions (Albaugh 2014, Kamwangamalu 2016). Except perhaps in urban South Africa, where Black and Colored middle-class families are raising children as native speakers of English, the European languages have remained elite *lingua francas* hardly spoken in rural areas. There is also no indication that English in South Africa is spreading at the expense of indigenous languages such as Xhosa and Zulu. A large proportion of Black South Africans, the majority population, is still rural and economically marginalized. Very few of them speak English or Afrikaans. Rural Afrikaners have learned the local Bantu languages in which those that own businesses communicate with their Black African workers. Many of the Black South Africans who have migrated to the city are contained in the squatter camps, where English is seldom used. Those living in the townships, different from the ‘suburbs’ around the original town center where most affluent South Africans of any ethnic background now live, are at least bilingual.<sup>18</sup>

It is such socioeconomic factors that explain why indigenous languages are still spoken as vernaculars by the overwhelming majority of Africans, even those that speak the European languages as *lingua francas*. The largest proportion of African populations is still rural, little affected by the experience of European colonization. Their children have little or difficult access to formal education, and most of them return to the village if they do get to complete high school in the nearby town, because there is nothing for them to do there afterward. They may speak the urban vernacular, which is indigenous, but only for a while; the traditional lifestyle brings them back to the ethnic, ancestral languages as the vernacular. Small towns are typically multilingual anyway, with the ethnic language still practiced at home and among people of the same ethnic background. The population structure does not encourage massive shift from the ethnic vernaculars. Though there are some ‘urban’ children who have only passive knowledge of their parents’ ethnic vernaculars, even they sometimes activate this knowledge as adults when motivated by any number of social pressures.

I myself may have overrated the threat that urban vernaculars pose to ethnic languages (Mufwene 2008), because those that have spread as *lingua francas* function strictly as *lingua francas* outside the city, not as vernaculars. The people that rural exodus has brought to the city find ethnic networks in which they continue to socialize in their ethnic languages, though they function in the urban vernaculars in the public sphere (Mufwene 2016a). The networks are sustained by the fact that the population explosion of cities has turned them into mega-villages without adequate urban infrastructures (Mufwene 2010). With the scarcity of jobs and the inability to afford adequate housing, the in-migrants from the rural areas depend on their networks to survive, and thus feel little pressure to give up their ethnic languages, which help them bond among themselves.

Interestingly, I have seen no reports of small African rural populations decreasing in size owing to massive exodus to urban centers.<sup>19</sup> And there are some exceptional urbanites that, fed up with city life, return to their ancestral villages, where they speak their ethnic languages with a vengeance, so to speak, because they are eager to prove they have not changed. So, the mechanisms that account for language shift in the Western world can hardly be extrapolated outside the West. Evolution proceeds subject to local ecological conditions, which we linguists can hardly afford to ignore.

<sup>18</sup> I provide all of this population-structure information because it helps explain whether a language is endangered, maintained, or spreading, and what ecological factors bear on the process.

<sup>19</sup> I overlook in this case the disheartening phenomenon of refugees driven out of their homelands by political conflicts in several parts of Africa. The linguistic consequences of these migrations are still to be investigated.

**6.2. GLOBALIZATION.** In connection with the apparent cultural and economic Americanization taking place, worldwide globalization was often invoked in the 1990s and early 2000s as favoring the spread of English. The worldwide spread of Hollywood movies and McDonald's restaurants (dubbed *McDonaldization* in the latter case) was considered the epitome of the Americanization process.<sup>20</sup> What was overlooked is that, like the computer, the Internet, and the automobile industry, Hollywood and the McDonald's franchise are more invested in making profits than in being missionaries of the English language. In the same way that the language of, say, Google's front page changes to Japanese, Chinese, or German depending on which country one is visiting, Hollywood movies too are dubbed in the major lingua franca of the local/regional viewers (Marling 2006). McDonald's restaurants not only operate in the local lingua francas but also adjust their menus to the local market. For example, no hamburgers are sold in India, and in France, one can buy a beer in a McDonald's. Menus outside the US may include options unknown to Americans. Although the names of most food items often remain in English, the service is definitely not provided in English when one is in Japan, Germany, France, Brazil, or any other country where English is not the primary language in currency in restaurants.

What should not have been overlooked either is that in most parts of the world, what Kachru (1985) characterizes as the 'Expanding Circle',<sup>21</sup> English has spread only as a(n important) lingua franca, not as a vernacular. That is, it has not been in competition with the indigenous languages in domains where the vernacular is expected to be used, especially within the family and in acts of socialization with indigenous members of their society. Thus Phillipson (2003) did not have to fear that Europe might become monolingual in English just because English has been the dominant working language of the European Union. One could have learned this lesson from Africa, where, after over a century, the European colonial languages, now official languages of the former colonies, have presented no danger to the vitality of indigenous languages. Languages are endangered when their VERNACULAR domains are encroached on by another language.

Of course, as remarked by Hagège (2014), a lingua franca can become a threat to indigenous languages if it becomes a vernacular. However, one has yet to see this happen with English on a significant scale in continental Europe, Africa, and Asia. But what has escaped the attention of linguists is what has become the worry of the Organisation Internationale de la Francophonie (OIF), viz., that the spread of English as an imperial lingua franca is endangering the imperial position of French, its competitor (and other similar languages, by the way). The competition is especially worrisome to the OIF because in the colonial competition between England and France, the latter lost some of its settlement colonies in North America and the Caribbean to the former. The Louisiana Purchase (1803) was another blow to the geographical expansion of French, as it made it easier for the US to expand from the Atlantic to the Pacific coasts and to evolve into a huge Anglophone territory. The fact that France did not succeed in keeping Indochina as an exploitation colony that would be the counterpart of British India was yet another blow in terms of potential lingua franca speakers (Mufwene 2016b).

<sup>20</sup> It is surprising that nobody ever mentioned the even wider spread of Coca-Cola around the world, even to the most rural areas of the Third World, where European languages are seldom heard. It shows clearly that the spread of American commodities has not proceeded hand in hand with that of English.

<sup>21</sup> This term is used in opposition to the 'Inner Circle', where English is the dominant vernacular (as in the United Kingdom and the US), and the 'Outer Circle', consisting of former British and American exploitation colonies, where English functions as an official language (e.g. India and Nigeria).

For the rest of us, the lesson is the same: *lingua francas* have their own arena of competition, which is different from that of vernaculars, although in some cases (but not everywhere) the arenas overlap. I surmise that this overlap must have happened in Anglophone North America and in Australia, with the non-Anglos first using English as a *lingua franca*, which eventually evolved into their vernaculars through interethnic marriages and as parents communicated with their children either exclusively or primarily in English. This behavior has been reported for Hispanic families too (Garcia & Mason 2008).

In any case, our theorizing in linguistics must sort things out. Languages die when they lose their vernacular function, which is probably why Classical Latin has generally been treated as a dead language, although it continues to function as the *lingua franca* of the Vatican. It may even have already been considered dead when it used to function as the scholarly *lingua franca* of Europe. It appears that, even if globalization is understood primarily in terms of facilitating the mobility of populations worldwide (despite some institutional restrictions), the factors that roll the dice on the vitality of particular languages lie in the local interactional dynamics enabled by the relevant population structures. This is what endangered French as a vernacular in Quebec and is endangering it in Louisiana. It is also local interactional dynamics that would endanger the imperial position of French in Francophone Africa, if indeed the spread of English there entailed loss of *lingua franca* speakers of French. After all, there is such a thing as stable multilingualism, pace the OIF's fears.

**6.3. COLONIZATION.** Like globalization, colonization has often been invoked to account for LEL. It is hard to dispute part of the story. After all, colonization took Europeans to the Americas, Australia, and New Zealand, where they have become overwhelming majority populations and their languages have prevailed as the dominant vernaculars. It is these languages that have been driving indigenous languages to extinction at least since the late nineteenth century or the early twentieth century, as speakers of the indigenous languages started assimilating to the dominant cultures.<sup>22</sup>

However, there are diverse styles of colonization, including trade, settlement, and exploitation colonization (Mufwene 2001, 2002; see Osterhammel & Petersson 2005 for a more elaborate typology). Our theorizing about LEL may not be accurate or comprehensive if we extrapolate only from settlement colonization. Trade colonies, involving 'factors' (i.e. trade agents) living permanently with the Natives, who were visited every couple of months or so by traders from Europe engaging in exchange with the indigenous rulers, introduced European languages to Africa, Asia, and the Pacific as *lingua francas*. In Melanesia especially, English evolved into several pidgin varieties, which, after evolving into expanded pidgins (functioning as vernaculars), are potentially endangering some indigenous languages (Tryon 2006). More and more islanders in urban centers are choosing them as their vernaculars, and those emigrating claim them as their national languages.<sup>23</sup>

<sup>22</sup> As noted above, the early stages of the colonization of the Americas and Australia cost the lives of numerous indigenous peoples. Many languages also died in the process. However, the latter losses had nothing to do with language competition, with which I am concerned in this section.

<sup>23</sup> Note in this connection that during the early stages of the colonization of the Americas, the European languages posed no threat to the indigenous languages either, because trade was generally conducted, through interpreters, in Native American languages (Curtin 1984, Gray & Fiering 2000, Metcalf 2005). It is in this context that some indigenous pidgins such as the Mobilian Jargon and *Lingua Geral* emerged. The Native American Pidgin English reported by Mithun (1992) emerged in the late nineteenth century.

As explained above, in exploitation colonies, the European colonizers taught their languages only to a small class of auxiliaries who interfaced between them and the masses of the indigenous populations. Beyond their function as vernaculars of the colonizers, the languages were also introduced to serve communicative domains that were not traditional to Africans. In contrast, the missionaries preferred to proselytize in indigenous languages they recognized as major ones (Samarin 1986), though they played an important role in the development of schools that trained the colonial auxiliaries. The emergent urban centers saw the rise of contact-based indigenous vernaculars, which spread as regional *lingua francas*. So, if anything, the European exploitation colonization of some parts of the world actually helped spread some indigenous languages.

Otherwise, the Natives continued to communicate among themselves in indigenous languages, typically using their ethnic languages as their vernaculars. There have been a few cases where a rural population shifted to another rural population's vernacular, as reported in Brenzinger 1998 and Batibo 2008. The latter case regards the negative effect of Bantu expansion on the Khoisan languages, which started before European colonization. Otherwise, exploitation colonization exerted a negligible deleterious effect on the vitality of indigenous languages in Africa. The very fact that all colonial ventures were not in the same style and did not exert the same kind of impact on indigenous languages must definitely be articulated in any accurate theorizing on LEL.

**6.4. LANGUAGE SHIFT.** We owe especially to Fishman (1991) the invocation of language shift at the population level to account for language death. Thus language death occurs sometimes, and perhaps most of the time, after a population traditionally associated with the language has adopted another as their vernacular. This happens especially after the grandparents, who are usually the ones motivating their children and grandchildren to use the 'heritage' language (when interacting with them), are all dead.<sup>24</sup> Unlike code-switching, language shift is the outcome of the cumulation of several occasions when speakers found it advantageous to speak a language other than that/those spoken by their parents or grandparents. Then comes the time when nobody in the relevant population is able to speak the latter any longer. It is when this generation emerges that language shift at the population level is complete.<sup>25</sup>

An important question is what causes a population to shift languages. One may say: shift happens when there are fewer and fewer opportunities to use the 'heritage language'. This answer is really about how it happens, but not why it does. Such a situation can be brought about for a variety of reasons, such as the relevant population being a minority and assimilating to the larger population, especially in a city; or a population being small, stigmatized, and dispersed within the larger population, so that they cannot interact or socialize regularly with one another; or the socioeconomic world order expecting a population to be fluent in the language of the economy in order to be competitive, and this language being brought into domains hitherto reserved to their traditional vernacular. These situations, which are not mutually exclusive, may in fact converge toward the same outcome: language shift.

<sup>24</sup> I use scare quotes around *heritage* because it is also one of the problematic terms in the literature that I do not discuss here, owing to space limitations. For instance, what is the heritage language of a child from a bilingual marriage? Does he/she have to learn both languages even if one of them is irrelevant to his/her life (at least at the time of language development)? And when a child acquires as mother tongue a language spoken in his/her social environment that is different from his/her parents' mother tongue(s), which one counts as his/her heritage language?

<sup>25</sup> Thus an alternative adequate answer to the question of when a language may be considered dead (discussed in §2) is: when a population has shifted from it as their vernacular.

These are by no means all of the relevant reasons, though they point to changes in the larger population structure, which one must understand in order to account for the maintenance, demographic expansion, endangerment, or loss of a language. Because population structure conjures up political and economic power (e.g. who accommodates whose political power and who migrates to whose economic system), it can, on the one hand, explain why, as done above, continental Europeans in North America have shifted to English, although they are the majority in relation to European Americans of English descent. The fact that they had lived in segregated communities and spoken diverse national languages militated against the maintenance of these languages once they assumed that acquiring the language of the economically and politically more successful group would facilitate their survival in the new socioeconomic world order.

On the other hand, population structure may also conjure up resistance or unwillingness to assimilate to the economically dominant population. This may explain why Pennsylvania Dutch has not been affected by the social integration movements that are now eroding the vitality of French in Louisiana and that of Native American languages. Isolation from the mainstream population (*viz.*, the Bayou Country in the case of Francophones in Louisiana) has also helped maintain minority languages.

Population structure can also help foster the role of a language as a marker of ethnic/cultural identity, which explains why African American English and White Southern English, for example, are apparently there to stay (despite their stigmatization), especially if one can earn a living in these varieties too. The case of African American English conjures up the power of neighborhood segregation and the strength of their social boundaries. Soft boundaries allow social interactions that may lead to the loss of some ethnic varieties, which explains the disappearance of Italian and German Englishes, for instance. Strong boundaries sustain cultural differences.

There are many other factors that need thinking over, including whether the MAJORITY/MINORITY distinction really applies everywhere in the world. For instance, it is hard to single out a demographically dominant majority population in most African countries. Compounded with the fact that most of the populations remain rural and the formal economies of most of their nations are either stagnating or declining, no vernacular has emerged as dominant that may be considered a/the threat to other vernaculars. As noted above, the European official languages have been confined to the small white-collar sector of the national economies, while the blue-collar sectors have evolved into indigenous urban vernaculars, which the rural populations learn typically as *lingua francas*.

**7. CONCLUSIONS.** I have shown above that the processes of LEL can be traced far back in human history. This is marked by layers of colonization of various kinds, thus of population movements and language contacts, which have often resulted in language competition. This history militates for integrating the scholarship on language vitality within evolutionary linguistics, where there is growing interest in the actuation question (Weinreich et al. 1968, McMahon 1994, Labov 2001) and ecological considerations are generally adduced to explain why particular evolutionary processes took place in given communities at specific times (Mufwene 2001, 2008). The study of LEL must certainly be connected to genetic linguistics, which shows language speciation, thus an increase in the number of languages, whereas the literature on LEL has been forecasting a drastic and rapid decrease in the number of languages around the world. It appears that, in the big picture, we must discuss LEL in terms of both gains and losses, even if we cannot produce an exact balance sheet of births and deaths.

It also appears that processes of LEL have not occurred uniformly everywhere, because the dynamics within the language ecosystems of different polities are not identi-

cal, even when they have experienced, for all intents and purposes, the same colonization style. This is consistent with the fact that every evolution is local, subject to the specific ecological pressures that operate at a given time, even if these have been triggered by some other geographically distant factors associated with worldwide globalization. This primarily economic process may be the cause more of the geographical spread of English than of the loss of, say, other European languages and Native American languages in the US. Overall, the facts, historically documented in different territories, call for a comparative approach, in the way explained by, for instance, Diamond (2005) and Diamond and Robinson (2010). Places that have experienced similar histories may still evolve in different ways, owing to the specificities of the local socioeconomic ecosystems.

I could have discussed more causes of LEL, such as those having to do with massive migrations of different kinds from the homeland, including the slave trade, refugeeism (triggered by wars and natural disasters), and intranational migrations related to economic employment. Political conflicts, too, and language practices in schools are other factors that deserve discussing in some detail. So is the relationship between language and culture, viz., whether language is separate from culture or is rather one of the many facets of the latter. However, space limitations preclude discussing them here. Nonetheless, the message is clear: language advocacy must be guided by more extensive and adequate theorizing about language vitality.

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