

The Routledge Handbook of Pidgin and Creole Languages

Edited by Umberto Ansaldo and Miriam Meyerhoff

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LANGUAGE CONTACT AND HUMAN DISPERSAL

Roger Blench

22.1 Introduction

22.1.1 The object of study; should we expect Creoles to be widespread?

The current tally of the world's languages is 7097 according to Ethnologue (Eberhard et al. 2019). This does not include extinct languages for which there is plausible documentation, which are listed in the Glottolog. Among these are some 77 Creoles, as gauged by the languages typically discussed in volumes devoted to the subject (Table 22.1), a number which at first sight seems somewhat implausible. The situations which typically lead to the genesis of Creoles, invasion, domination, slavery, long-distance trade and so on, are well documented at many eras and for many situations where Creoles are not typically identified. Similarly, even cases where a substantial substrate has been identified, such as in Ancient Greek, where less than 50% of its lexicon can be attributed to inheritance from Indo-European (Beekes 2014) and the rest presumably originating with the semi-mythical Pelasgians, do not usually lead to Greek being treated as a Creole. Old Chinese, similarly, has a relatively small number of Sino-Tibetan roots, and a large percentage of borrowings from regional languages (Schuessler 2007). The status of these languages and their large written corpus excludes them from discussions of Creoles, but this is a cultural definition, not based in linguistics.

If this is the case, then it is plausible that various forms of language mixing are historically very common and the problem is rather with linguists, who typically have an investment in the purity of the language they describe. Etymological analysis, often dismissed as 'philology', has now all but disappeared from many modern linguistics departments, but it is a key to the understanding of language mixing. For example, the archaeological and historical evidence makes it plain that the island of Java must once have had a large number of diverse Austronesian languages. Merger and levelling processes over more than two millennia have gradually created 'Javanese', often praised by its scholars for its beauty, etc. In reality, however, it must be a Creole, bundling together features from a large number of disappeared languages. But for essentially non-linguistic reasons, it will never be labelled as such.

Table 22.1 Creoles recognised in standard literature

Source	No.	Comment
English-based	19	
Malay-based	17	Often treated as 'dialects
Portuguese-based	9	
Dutch-based	8	All extinct
French-based	7	
Spanish-based	4	
Arabic-based	4	
Other languages	9	
Total	77	

Opposed to this is a more radical view, namely that all languages are Creoles, that is, the core of language innovation is about the interaction of peoples. This statement is somewhat hyperbolic, since, Polynesian seafarers at least settled previously uninhabited islands, and the languages they speak today are the direct descendants of the language of the first migrants. Nonetheless, the proposition encapsulates an important truth, which is that the great majority of languages in large continental areas inevitably interact with one another and usually with languages of wider communication, initiating linguistic change. It used to be considered that 'mixed' languages did not occur, that every language was essentially or underlying one language and was relexified from another. Thomason and Kaufman (1988: 1) counterpose Max Muller's categorical assertion that there are 'no' mixed languages with Hugo Schuchardt's claim that there are no 'unmixed' languages.³ Linguists' resistance to the idea of mixed languages has rather broken down with increasing evidence that such languages do exist (Bakker & Mous 1994). Bechhaus-Gerst (1996) documented the evolution of Nile Nubian (where some written sources do exist) and was able to illustrate a pattern of borrowing and language mixing over time in a way that is exceptional for Africa.

Many languages not on any usual list show signs of comparable language mixing as mainstream Creoles and for much the same reasons, cultural dominance. The Nyam language, a Chadic language in Central Nigeria, has undergone extensive phonological, grammatical and lexical restructuring in contact with the neighbouring but unrelated Adamawa languages (Andreas 2012). Our reasons for not listing Nyam as a Creole are cultural, not linguistic. In other words, language mixing and persistent bilingualism is a core element in both diversification and change.

The structure of this chapter is as follows. Section 1.2 considers the possible scenarios for language mixing and some proposed application of terms. Section 2 then proposes some palaeosociolinguistic scenarios which can lead to mixed outcomes. Section 3 outlines current thinking on the global dispersals of language families and in particular considers the problem of the disparities between continents in terms of numbers of phyla. This is interpreted as variation in the range of language levelling and cultural dominance. Section 4 considers some case studies, exploring situations which pose problems for typical definitional problems. Section 5 asks how far this type of language mixing might be reflected in the archaeological and indeed ethnographic record and discusses the surprising developments in ancient DNA which have rapidly overturned some long-held assumptions. Finally, the conclusions in Section 6 explore the way ahead in terms of palaeosociolinguistics.

Table 22.2 Potential definitions of language mixing scenarios

Term	Proposed definition	
Creole	A language which has become a primary speech of a community which incorporates elements of two of more distinct languages	
Pidgin	A language which incorporates elements of two of more distinct languages used for intercommunication between two communities with different primary languages	
Substrate	An underlying language, either as the 'indigenous' language or the L1 in a multilingual context language	
Mixed language/macaronic	A language which mixes elements from two or more primary languages, with varying amounts of systematicity, and which might be either a Creole or Pidgin using the previously stated definitions. Types of poetic convention may be macaronic, mixing multiple languages	
Register language	A language where speakers switch between two or more registers, either forms of a single language, or (more rarely) between two unrelated languages	
Language levelling	Related languages converge syntactically and lexically due to the prestige of a particular lect (or possibly government promotion)	

22.1.2 Some definitions

Although the definition of Creoles and Pidgins is not exactly an unexplored topic, once the focus is global, and the perspective encompasses all the possible interactions of language, more nuance may be required. Table 22.2 lists a variety of possible scenarios for language mixing, together with definitions used in this chapter.

Pidgins have usually been analysed as a result of the interaction of two languages, but more complex scenarios are clearly possible. An example of a problematic language with such a history is Laal. Laal (also Gori) is spoken by several hundred fishermen in Central Chad (Boyeldieu 1977). Its vocabulary and morphology seem to be partly drawn from Chadic (i.e. Afroasiatic), partly from Adamawa (i.e. Niger-Congo) and partly from an unknown source, perhaps its original phylum, a now-vanished Central African grouping. For this to develop, Laal speakers must have been in situations of intense bilingualism with different neighbours over a long period, without being in a relationship where cultural dominance would cause them to lose their language. Similarly, this does not suggest pidginisation, since Laal speakers have a very full ethnoscientific vocabulary, as would be expected from a remote inland fishing community.

22.2 The historical sociology of language mixing

Earlier writing on creolisation tended to focus on Creoles that evolved between European (i.e. colonial) languages and indigenous languages, often through conquest or slavery. But as perceptions have sharpened, it is increasingly clear that these are broad processes affecting human language at all times and places (Thomason & Kaufman 1988). We know about these processes because they have occurred in the recent, observable past. But there is every reason to think that various types of language mixing also happened prior to modern documentation.

Table 22.3 Characteristics of interactions which result in language mixing

Situation	Description	
Military dominance	A more powerful culture controls a minority culture through conquest, but has no immediate interest in enforcing language shift. It is in the interest of both sides that a language of communication develops	
Enslavement	Individuals or populations are moved, usually forcibly, from their home areas, and compelled to communicate, both with others in the same situation and with their owners/overseers	
Cultural dominance	A culture with a perceived ideological/social advantage is so prestigious for a minority culture, that incomplete language shift, or heavy lexical and structural borrowing occurs. Media dominance represents an evolved version of this	
Trade interaction	A trading culture needs to develop a means of communication with its commercial partners. Where the technological imbalance is extreme, the consequence may be extensive relexification of the minority partner	
Peaceful intermingling	Populations intermingle geographically, most typically foraging bands or farmers seeking new land. Multilingualism is the norm in cementing interaction and linguistic features transfer across these boundaries	
Linguistic exogamy	The practice whereby women marry into other, perhaps unrelated linguistic groups, in areas of the world where numerous small ethnolinguistic groups occur, such as the Amazon and New Guinea. The children are often brought up to be bilingual, causing transfer of linguistic features	

Based on our understanding of the recent past, we can develop a broad characterisation of such interactions (Table 22.3).

The consequence of many of the scenarios is language restructuring, sometimes radical. Many languages which have never been regarded as Creoles have nonetheless undergone radical changes under the influence of bilingualism. Dimmendaal (2001: 97 ff.) shows that the Nilotic Luo language of Western Kenya has acquired an incipient system of noun-classes through contact with neighbouring Bantu-speakers. The degree of contact necessary for this major restructuring to occur is also reflected in many other aspects of Luo culture, which resembles those of the Bantu farmers more than their pastoral relatives in the Western Nilotic group.

As with language shift, processes of language change observable in the present clearly also took place in the past, although they muddy the waters of conventional language diversification models. One important process is pidginisation and the related creolisation (Thomason & Kaufman 1988). The conventional definition of a Pidgin is a simplified language that grows up for speakers with different mother-tongues to communicate with each other, and a Creole is when such a speech-form becomes the mother-tongue of a particular group. The boundary between these two is not always clear; presumably in transitional households, the parents speak a Pidgin and the children a Creole. Moreover, the elevation of Pidgin Englishes to codified speech-forms in various parts of the world (e.g. Bislama in Vanuatu, or Pidgin in Cameroun) means that what linguists would call Creoles are known as Pidgins.

Creoles and Pidgins have grown up in Africa in a variety of situations, most notably for trade, as a consequence of slavery, in armies, as the Arabic Pidgin kiNubi spoken in Uganda (Luffin 2005) and for communication between employers and employees (as in the minespeech Fanagalo in South Africa) (Mesthrie 1989). The characteristic of Creoles is that they

mix vocabulary, phonology and syntax from their source languages. Earlier descriptions often characterise them as highly simplified, but simplification is a rather culturally loaded term. A language may be simplified from the point of view of a speaker of a particular language, partly because they do not recognise complexity in an area that is undeveloped in their own language. It is true, however, that most Pidgins and Creoles are very weak on ethnoscientific vocabulary. Developing in contact or urban situations, the need for detailed terminology to describe the natural world is limited. Still, when a Creole persists over centuries, as on some Caribbean islands, this terminology evolves anew, in part through borrowing from the dominant written language.

Related to, but distinct from Pidgins and Creoles, are lingua francas or vehicular languages. The development of larger polities and the extension of long-distance trade networks required the evolution of networks of speakers of languages that were by no means creolised but were suitably developed for the expression of political authority and trade. Lingua francas were highly significant in pre-colonial Africa, but they have seen considerable extension since the growth of the nation-state, as formal and informal languages of communication are required over a wide area. Islamisation was clearly an important element in the spread of vehicular languages, Hausa, Chadjan and Sudanese Arabic, Swahili, Soomaali, Kanuri, Fulfulde and Dyula spread in the context of military and trade expansions. But not all large vehicular languages were the products of Islamisation; Lingala, Sango, Kikongo, Amharic, Mõõre, Yoruba, Efik, Akan/Baule and Wolof seem to have spread, often in a military or trade context, but prior to or unrelated to Islam (Blench 2007). Interestingly, many of these languages have become less important in the post-colonial phase of cultural expansion, suggesting a failure to make the transition to a trade and administrative language. Hausa, Soomali and Bambara, by being transformed effectively or actually into national languages, have extended their reach still further.

Vehicular languages come and go, leaving their traces in the culture of the peoples who once spoke them. For example, Kanuri is a language in manifest retreat. Kanuri-speakers once controlled an empire that had suzerainty over much of northeast Nigeria, adjacent Niger and Cameroun. Speakers of Chadic languages immediately due south of Yerwa (i.e. Maiduguri) spoke Kanuri as a second language, and adopted Kanuri titles, dress and other aspects of Kanuri culture. Colonialism managed to subvert this highly effectively, for not only has Kanuri collapsed as a second language, but Hausa is making inroads even in Maiduguri, their capital (Broß 2002). Despite this, Kanuri culture remains highly visible among the peoples they once dominated; their languages retain Kanuri loanwords, their chiefs retain Kanuri titles.

22.3 What do we know about the global patterning of the world's language phyla?

Most scholars now regard early *Homo sapiens* as having a form of language comparable to those spoken today. In parts of Eurasia and Africa, new phyla have arisen repeatedly, erasing all but traces of prior language families. However, in Papua, Australia and the New World, language diversity is so high that it is plausible the languages spoken today may sometimes represent the direct inheritors of the first settlers. Figure 22.1 shows our current understanding of the dispersals of *Homo sapiens* across the world. The announcement of new early dates for Morocco (Hublin et al. 2017) has caused a major revision of our thinking about intra-Africa processes. Even more startling is evidence that hominids (*Homo erectus*) may have crossed the open sea to Luzon as early as 700,000 BP (before present), although what type of language they may have possessed can only be a subject for speculation.

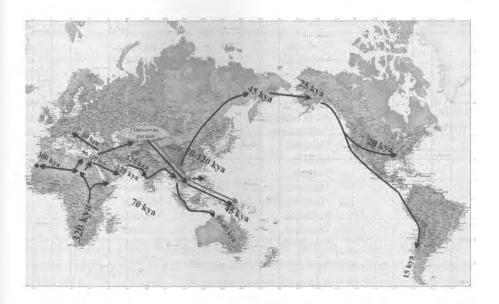


Figure 22.1 Earliest human dispersals across the world (kya = thousands of years ago).

The most striking aspect of world language phyla is their uneven distribution. Africa, despite being the continent where modern humans originated, has the fewest phyla, and the New World, most recently settled, has by far the most. Table 22.4 tabulates the phyla by continent, excluding language isolates (Blench 2017b). The explanation for this is far from established, but it is apparent that the regions with most phyla are those where there has been virtually no evolution of larger political structures, and limited assimilation of hyper-diverse small phyla (cf. Blench 2012, 2013b). The New World, Melanesia and Australia have not seen the endless passage of migrants passing through, driven by conquest or trade, which has encouraged the expansion of major phyla. By contrast, both Africa and Eurasia have been revolutionised by the spread of iron, large-scale polities and world religions, all of which reduce diversity. In historic time, the seventh-century Arab expansion out of Saudi Arabia must have been responsible for the disappearance of hundreds of languages spoken from Morocco to Iraq.

Back migration is an important aspect of Creole genesis. For example, during the period after the passage of anti-slavery laws in the nineteenth century, 'Brazilian' traders of African origin returned to West Africa. They no longer spoke their original language but one of the many mid-Atlantic Creoles. These in turn acted to restructure the Pidgins spoken all along the West African coast and contributed significantly to the lexicon of the indigenous languages.

22.4 Some case studies

22.4.1 The development of complex register systems and shamanic language

Ma'a or Mbugu, a language spoken in Tanzania, was originally thought to be a Creole, mixing elements of indigenous Bantu languages with Cushitic elements (Mous 2004). Although now generally referred to a 'mixed language', it is really a language with two registers, one drawn from a Bantu language related to Pare, and the other a now-vanished Cushitic language. How

Table 22.4 Language phyla by continent

Africa		Tai-Kadai	95 95	Caddoan	4
Afro-Asiatic	375	Dravidian	85	Chapacuran	4
Khoe-Kwadi	13	Turkie	41	Guajiboan	4
Kx'a	4	Hmong-Mien	38	Guaykuruan Kiowa-Tanoan	4
Niger-Congo	1538	Uralic	38		4
Nilo-Saharan	205	North Caucasian	34	Misumalpan	4
Tuu	6	Andamanese	14	Sahaptian Zanasaan	4
		Mongolic	13 12	Zaparoan Barbacoan	2
Total	2141	Japonic Tupousio	11	Huavean	2
		Tungusic Kartvelian	5	Jivaroan	4
Pacific		Chukotko-Kamchatkan	5	Maiduan	2
Trans-New Guinea	480	Koreanic	2	Yanomaman	2
Australian	378	Yeniseian	2	Aymaran	3
Torricelli	57	Yukaghiric	2	Bororoan	3
Sepik	55			Kwomtari	3
Ramu-Lower Sepik	32	Total	2724	Mongol-Langam	3
Tor-Kwerba	24	New World		Sálivan	3
West Papuan	23			Tsimshian	3
South-Central Papuan	22	Otomanguean	177	Wintuan	3
Lakes Plain	20	Tupian	76	Cahuapanan	2
Border	15	Uto-Aztecan	61	Chinookan	2
East Geelvink Bay	12	Maipurean	60	Chipaya-Uru	2
South Bougainville	9	Quechuan	45	Cholonan	
East Bird's Head-Sentani	8	Eyak-Athabaskan	44	Chon	2
Skou	8	Algic	42	Haida	2
East New Britain	7	Cariban	32	Harákmbut	2
Arai Left May	6	Mayan	31	Jabutian	2
Yuat	6	Panoan	27	Katukinan	2
Nimboran	5	Salish	26 25	Keresan	2
Pauwasi	5	Tucanoan Chibchan	20	Mapudungu	
Central Solomons	4		17	Maxakalian	2
Eastern Trans-Fly	4	Mixe-Zoquean	17	Palaihnihan	2
Kaure	4	Jean Pidgin	16	Purian	2
North Bougainville	4	Siouan-Catawban	14	Tarascan	2
Arafundi	3	Totonacan	12	Tequistlatecan	2
Mairasi	3	Eskimo-Aleut	11	Yaguan	2
Yele-West New Britain	3	Cochimi-Yuman	9	Yukian	2
Amto-Musan	2	Iroquoian	9	Zamucoan	2
Bayono-Awbono	2	Chocoan	8	Botocudoan	1
Fas	2	Miwok-Costanoan	8	Chimakuan	
Lower Mamberamo	-	Paezan	8	Coosan	1
Maybrat	2	Matacoan	7	Jicaquean]
Piawi	2	Pomoan	7	Kamakanan	!
Senagi Samahai	2	Puinavean	7	Karajá	!
Somahai	2	Witotoan	7	Kaweskaran	:
Total	1213	Chumashan	6	Lencan	:
_		Mascoyan	6	Mosetenan	
Eurasia		Muskogean	6	Muran	
Austronesian	1257	Nambiquaran	6	Takelman	
Sino-Tibetan	457	Tacanan	6	Tiniguan	
Indo-European	444	Wakashan	6	Yokutsan	
Austro-Asiatic	169	Arauan	5	Total	995

Table 22.5 Idu speech registers

Register	Idu name		
everyday speech	àŋá'līyā		
hunting	[no Idu name]		
shamanic	īgù àŋá'pīyā		
mediation	àshúbà		
cursing	ìpū		
humorous	álánū áshrèè		
mourning	ànià		
babytalk	[no Idu name]		

and why speakers switch between what Mous calls 'Inner' and 'Outer' Mbugu depends on complex sociolinguistic factors. Mbugu stands out because the two source languages are so morphosyntactically distinct. Even more complex situations arise when individual languages have multiple registers, and the sources of the lexis are not established.

The Idu language is spoken around Roing town in the northeast of Arunachal Pradesh, itself in the extreme northeast of India. Despite its small size, Idu has a remarkably complex system of language registers apart from everyday speech $(\hat{a}\eta\hat{a}'l\bar{t}y\bar{a})$. Table 22.5 lists the registers currently identified in Idu.

These have different degrees of divergence from everyday Idu. Shamanic speech is quite incomprehensible, using lexical substitution, periphrastic expressions and divergent syntax. Hunters' speech, intended to avoiding alerting the animals to human presence, is a simple system of lexical substitution. The origin of many substitute lexemes cannot be identified; it is speculated they are either archaic Idu or are drawn from languages which have now disappeared. Mediation and cursing consist mostly of inserting set formulae, which are themselves replete with complex symbolism and expressions with backstories, into otherwise functional negotiations. Not all Idu command all these registers, but most people are aware of individual elements. Everyday speech is enriched by 'register-flipping', the use of words and expressions drawn from other registers. The motivations for this are not explicit, but in an oral society, command of a wide range of linguistic expression remains highly prestigious. Crucially though, the implication is that Idu is not a 'stable' language, that it is internally creolised, or is code-switching with versions of itself.

22.4.2 The 'Macro-Philippines' hypothesis

The languages of the Philippines are part of the larger phylum, Austronesian. All the languages (some 127) are held to form a single subgroup of Austronesian with the exception of the Samalic languages (Yakan etc.). However, as Blust (2005) points out, their internal diversity is far lower than expected and they can be characterised by a set of pan-Philippines lexical items. The level of diversity can be gauged by measuring it against the language densities of other islands, such as Malekula in Vanuatu, which have developed greater numbers by area over a significantly shorter period. Blust concludes that the Philippines must have been subject to a language levelling process subsequent to its primary settlement from Taiwan around 4000 years ago. In other words, a systematic process of social and cultural change brought together already related languages leading to convergence and reduced diversity. Blust does

not speculate on the causes of this process, but it is plausible it was contemporary with the introduction and spread of iron, some 2000 years ago (Blench 2017a).

Not all linguists accept this view, but there is no doubt of the surprising unity of Philippines languages. By an irony of chronology, we can see this levelling process occurring anew in the present. The national language of the Philippines in Tagalog, also referred to as Pilipino. Tagalog is related to the other Austronesian languages and most inhabitants of the archipelago are fluent in it as a second language. However, the similarity in grammar and lexicon with their native speech is causing the analogical restructuring of indigenous languages, so they converge ever more closely on Tagalog (Blench 2014).

22.4.3 Berber: a trade-based Creole which rediversified?

The Berber languages spoken in the Maghreb and the Sahara constitute one of the longstanding puzzles of Afroasiatic linguistics. Spoken from southwest Mauritania to the oases of Egypt (Figure 22.2), they are so similar to one another as to be nearly mutually intelligible. Berber is one of the six branches of Afroasiatic, and structurally and lexically very remote from the other branches, although the presence of numerous embedded Arabic loans gives it a superficial resemblance to Semitic. If it indeed split from Afroasiatic long enough ago to account for this separation it should be divided into numerous distinct languages. The assumption is that it went through a major levelling process, eliminating diversity in the recent past. One model to account for this is the establishment of the Roman limes in the second century AD. As nomadic Berber were kept beyond the limes and developed trade relations, their lects coalesced, forming a mutually intelligible lingua franca. This would explain the presence of numerous Latin loanwords apparently reconstructible to proto-Berber. The collapse of the Roman Empire in North Africa led to a new dispersal of Berber, driven by the adoption of pastoralism, and accounting for the presence of outliers such as Zenaga in Mauritania (and the adoption of Berber as Siwa in the Egyptian desert). Such a model would account for the surprising lack of diversity in modern Berber lects (Blench, in press).

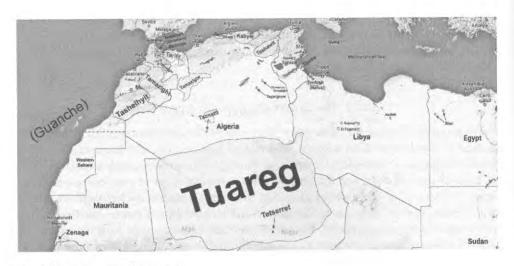


Figure 22.2 The Berber languages.

22.5 Can we build hypotheses based on the archaeological and DNA record?

22.5.1 Language diversification

Palaeosociolinguistics is the construction of models of language diversification and interaction in the past, using processes attested in the present (Blench 2013a, 2014). Interpreting these models through the archaeological (and more recently DNA) record has had a controversial history but in some regions of the world, notably the Pacific, consensus is slowly being reached. A key element in understanding language interaction in the past is the concept of 'expected diversity'.

It can seem from standard texts that all language phyla diversify neatly into branching trees, a view reinforced by the output from 'new' mathematical phylogenies. In some places and times this does indeed occur, especially in the Pacific, where migrants were settling previously uninhabited islands. But a more nuanced historical linguistics points to an array of more complex processes, including simultaneous multiple splits, language merger, levelling and others. Simple models of diversification would certainly be convenient for proponents of demic expansion. If people would stick to their own language and not engage in multilingual behaviour, life would be easier for the archaeolinguist. But language shift is one of the central processes of cultural change and bound up with prestige institutions and material culture. A plus about language shift is that it can be seen and documented in the present, which makes it easier to seek its traces in the past. All over the world, ethnic minorities are under pressure to yield their own speech to a national language and in many cases this is occurring. The consequences for material culture, though, can be highly variable. In many developed economies, for minority languages such as Breton, Scots Gaelic or the Amerindian languages of North America, the shift in material culture has already occurred. Language loss trails behind it, perhaps artificially retarded by literacy programmes or wellmeaning linguists.

The parallels within Africa can be seen by exploring the effects of the spread of lingua francas and the cultural shifts associated with them (Blench 2006). Two of the most predatory languages in Africa are Hausa and Chadian Arabic. In Nigeria, many minority languages are giving way to Hausa (Blench 2007), while in Chad, speakers of small Chadic languages are switching to Arabic (Connell 2007). Obviously, the association of these languages with Islam is related to this expansion, although in Nigeria, the languages of other powerful and well-established Islamic peoples such as the Kanuri and Fulbe are losing out to Hausa (Broß 2002). The decision to speak Hausa as a primary language has two sources: multi-ethnic marriage in towns and a conscious decision to 'become' Hausa in rural areas. Children of urban marriages in northern towns usually have a very limited command of their parents' languages, speak English more or less and an urban, simplified Hausa. Their speech consists of constant code-switching and it is safe to say they cannot really speak any language well. Inasmuch as they retain their ethnicity, they are likely to identify with their fathers. In rural areas, the situation is quite different. Hausaisation is usually associated with switches in dress-codes, the development of Islamic ceremonies, adoption of Hausa music, etc. Much of this may occur while the previous language is still spoken, usually during a period of intense code-switching before the younger generation gradually drops the speech

To relate this to archaeological interpretation, it is useful to consider a process such as the Swahilisation of the East African coast. The islands off the northern coast of Kenya seem to

have been settled by about the eighth century (Horton 1996). The earliest settlers were principally cattle-keepers, probably pastoral peoples from the rangeland areas, either Cushitic- or Nilotic-speaking. This was a curious occupation on islands where fish were so abundant and over time, their settlements were transformed into the fishing-oriented Muslim, Swahilispeaking settlements found there today. The transition is not abrupt and it is likely that the resident population gradually became Swahilised through a mixture of settlement, trade, import of new technologies and the gradual spread of Islam, all processes that can be seen at work today in Northern Nigeria in the context of the Hausa expansion. Modern Swahili, with its high level of lexical borrowings from Omani Arabic and other regional languages, and hybrid syntactic structures, reflects this history. Interestingly, Swahili, although an important language of communication in Kenya and Tanzania, has not tended to displace the mainland vernaculars in the same way as Hausa, just as Islam has not spread inland in East Africa to any significant degree.

The relevance for palaeosociolinguistics is that creolisation must surely reflect the mingling of cultures and as such, should be visible in the archaeological record. This type of interaction between attested linguistic and archaeological data has been more thoroughly studied in Oceania, where the clash of Austronesian and Papuan languages and their highly distinctive material culture has been documented in some detail. For example, Dutton (1999) studied the relationship between language mixing and pottery in the archaeological record on the island of Mailu. Although the material culture of Mailu points to settlement by Austronesian navigators some 2000 years ago (Irwin 1985), the language of Mailu today is non-Austronesian, pointing to radical language shift. Yet the archaeology provides no evidence for what would should have been an important disruptive event. Dutton (1999) notes that:

a well-known feature of the Austronesian and non-Austronesian languages of the Mailu area is that they contain large amounts of vocabulary borrowed from one another. Thus, for example, the Mailu Island dialect of Magi contains about 20% Austronesian vocabulary and Magori about 50% Magi vocabulary.

Clearly the languages from two very different language phyla underwent extremely long-term gradual creolisation, at a rate which would not be reflected in the archaeological record.

Similar scenarios have also played out in Southern Africa, where the contact between the resident Khoisan speakers and the incoming Bantu has left distinctive traces in both language and material culture. The clicks in Southern Bantu languages such as Zulu and Xhosa are often cited as evidence, but a language such as Yei in Botswana is a demonstration of a much richer interaction (Sommer & Vossen 1992). Yei has borrowed some 28 click sounds from neighbouring Khoisan languages, particularly //Ani, and the clicks are generally borrowed directly with their prosodies intact. A great many terms refer to objects in the natural environment, particularly plants and animals, which the Khoisan speakers would certainly be more familiar with than incoming Bantu-speakers. Unlike Zulu, the Yei have not normalised the clicks within their phonological system, as if the sound-system of the language was intentionally mimicking their experience of interacting cultural systems.

Analyses of the archaeology of Namibia by Kinahan (1991) illustrate a long and complex interaction between hunting populations and pastoralists, pointing to transitional social orders that no longer exist. It is easy to imagine how this type of social nexus could result in intricate patterns of linguistic mixing. Nurse (2000) looked at two languages in East Africa, Daiso and Ilwana, from this point of view, trying to determine which types of vocabulary were inherited from the fund of common Bantu and how borrowed and other extraneous forms had arisen.

22.5.2 The ancient DNA revolution

Since 2016, the study of ancient populations has been upended by the extraction of reliable quantities of DNA from skeletal material following the identification of the petrous bone in the ear, which acts to concentrate DNA (Reich 2018). Publications such as Skoglund et al. (2016) have already produced counter-intuitive results, suggesting that populations identified by archaeology were not as assumed. The earliest populations in Vanuatu, witnessed in the Te Ouma cemetery, turn out not be the ancestors of those resident in the archipelago today, but rather represent direct migrations from the Austronesian source area, the Luzon Strait. Both the archaeology and the physical anthropology suggest that within two generations they were displaced by migrants representing a phenotype far closer to the niVanuatu. Presumably then both a genetic and linguistic merger occurred, accounting for the 'Papuan' features identified in what were considered to be mainstream Austronesian languages.

More exciting still is the recent hypothesis that the Denisovans played a role in the ancestry of modern humans. Denisovans represent a third species of archaic *Homo*, first reported from a cave in the Altai mountains in 2010. So far we have little in the way of full skeletal material, but the evidence from genetics is mounting that there was interbreeding with modern humans (Sankararaman et al. 2016) and that the resultant genes were carried to New Guinea and Australia, where up to 6% of the genome is derived from Denisovans. In a startling claim, Cox and Sudoyo⁴ argue there may have been residual populations of Denisovans in New Guinea as late as 15,000 years ago. If this is the case, then admixture of languages from two completely distinct sources may go some way to explaining the diversity found today in Melanesia. However, this is currently still highly speculative, but we can predict considerable changes to the picture of human dispersal in the coming years.

22.6 Conclusions

22.6.1 Summary

A broader overview of the potential scenarios for language mixing globally suggests that far from being rare, various types of creolisation process are not only common but strongly connected with an underlying process of language diversification. Creoles are also unstable; either they disappear with the contact situation they reflect or they develop and are considered a mainstream language, as memories of the circumstances whereby they developed attenuate. One reason mainstream Creoles are so well understood is because their parent languages are densely documented. A Creole such as Nyam (Section 1.2) develops in a context of neighbouring languages which are equally poorly known, so our account of its genesis will inevitably be correspondingly weak.

22.6.2 Where next?

Palaeosociolinguistics depends on a uniformitarian presumption, namely that much the same processes of language change occurred in the past as in the documented present, and that these can be used to model the past. Crucially, however, we need a more wide-ranging characterisation of the sociolinguistic drivers of language mixing, which plausibly account for observed languages, as well as the framework of their genesis. In the light of this we can relate complex archaeological scenarios and evidence from ancient DNA to models of language diversification and change.

Related topics

The Typology of Pidgin and Creole Languages; Pidgin and Creole Ecology and Evolution; On the History of Pidgin and Creole Studies; Variation in Pidgin and Creole Languages; Sub-Saharan Africa; The Arab World; Australia and the South West Pacific

Notes

- 1 www.ethnologue.com/
- 2 https://glottolog.org/
- 3 Originals: Es gibt keine Mischsprache and Es gibt keine völlig ungemischte Sprache.
- 4 www.sciencemag.org/news/2019/03/our-mysterious-cousins-denisovans-may-have-mated-modern-humans-recently-15000-years-ago

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