

The Bantu Expansion

Some facts and fiction

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13.1 Introduction

The long-standing picture of Africa as a homogenous linguistic landscape consisting of a small number of large families and a few isolates has been revised over the last decade in favor of higher diversity (Dimmendaal 2008). Nevertheless, the continent remains linguistically much less diverse than Asia and America. The large-scale expansion of fairly recent language families is one of the reasons for this comparatively low diversity. The continent's best-known language dispersal is no doubt the so-called 'Bantu Expansion'. The Bantu languages constitute by far Africa's largest language family. About one African in three speaks at least one Bantu language and the overall majority of African communities south of c. 4°N are Bantu speaking (Nurse and Philippson 2003).

On the other hand, Bantu is only an extremely low-level subgroup of the Niger-Congo phylum, being at most a sub-branch of a sub-branch of a sub-branch of the Benue-Congo branch (Williamson and Blench 2000; Schadeberg 2003). Within Benue-Congo, Bantu is part of the wider Bantoid family, which belongs to the East-Benue Congo branch. Bantoid itself splits up in South-Bantoid and a number of other branches. What is commonly called Bantu is actually 'Narrow Bantu', i.e. those languages conventionally classified as Bantu by Guthrie (1971). Narrow Bantu is only one South Bantoid subgroup along with a number of other subgroups, which are called 'Wide Bantu'. So far no indisputable shared innovation has been identified which would allow subdividing South-Bantoid into discrete subgroups. No clear-cut demarcation line exists between Narrow and Wide Bantu, as several lexicostatistical studies have also shown (Piron 1997; Bastin et al. 1999; Bastin and Piron 1999; Grollemund 2012).

While the geographical distribution of other South-Bantoid languages, and even Bantoid languages more widely, is limited to South-East-Nigeria and North-West-Cameroon, Narrow Bantu languages stretch over no less than twenty-seven African countries. Comparisons are odious, certainly between language phyla, but the phylogenetic position of Bantu within Niger-Congo corresponds to that of West-Germanic or North-Germanic within Indo-European. The spatial

distribution of Bantu and Germanic languages can be called, at the very least, incommensurate. The apparent paradox between a phylogenetic low position and a disproportionately large spread can only be accounted for by assuming a rapid spread of Bantu languages. This language dispersal is even more exceptional if one realizes that the north-south span of the Bantu domain is about 1.5 times that of the west-east span. Expanding along a north-south axis involves the crossing of areas differing in climate, habitat, rainfall, day length, and diseases of crops and livestock (Diamond 1999). The dense humid forests of Central Africa do not really offer the best conditions for a swift language expansion.

This disproportionately large distribution calls for an explanation. Obviously, Bantu languages have nothing inherently superior to other African languages that could explain their success story. The explanatory factors must be out there in the real, extra-linguistic world. That is why this problem of disproportional distribution has been of interest to scholars from a wide variety of disciplines. Several generations of linguists, archeologists, palynologists, molecular anthropologists, and many more have debated on the driving forces behind the Bantu Expansion. As it often goes with hotly debated issues, certain less well-grounded assumptions—not to say myths—started to lead a life of their own. They get iterated over and over again in the literature and become facts without further critical questioning. Under those circumstances, the risk for circular reasoning is particularly high, especially when scholars from different disciplines uncritically rely on each other's research results without a deep comprehension of underlying methods.

Within the vast scientific literature on the Bantu Expansion, there exists a long tradition of interaction between archeology and historical linguistics. This mutual influence has often been beneficial for scientific progress, for instance when archeologists decided to excavate in the Grassfields region of Cameroon, because linguists had situated the Bantu homeland there (Greenberg 1972). It led to the discovery of 30,000 years of human occupation from the Late Pleistocene to the Late Holocene (de Maret et al. 1987; Lavachery 2001; Cornelissen 2003). At the same time, due to a lack of critical evaluation of underlying concepts and methods, cross-pollination between archeology and linguistics also produced unwanted excrescences, which scholars from both fields have severely criticized (Gramly 1978; Möhlig 1989; Eggert 2005; Bostoen 2007).

Over the last decennia, molecular genetics has opened up a whole new research paradigm, offering previously unknown opportunities, especially to come to a better understanding of the demographic processes underlying the Bantu Expansion. However, as shown in Pakendorf et al. (2011), geneticists have proven particularly productive in adding weight to historical scenarios flawed by circular reasoning, rather than challenging earlier theories. Where Bantu speakers are involved, molecular anthropologists have too often relied on Bantu migration models generated by scholars from other disciplines to interpret the geographic distribution of their own genetic markers. Genetic data should serve to reconstruct the

population dynamics that may have underlain the Bantu language dispersal; yet it is precisely this preconceived Bantu migration model that is relied on to interpret the genetic data. It is almost unavoidable then not to lapse into conclusions that simply reinforce what had been claimed before.

In this chapter we pass some settled truths about the Bantu Expansion in review in order to assess what are facts and what is fiction. As often is the case with persistent myths, they contain an element of truth, but it is a half-truth. Dotting the i's and crossing the t's on these matters may seem pedantic. However, injudicious interdisciplinary research scared away several scholars, great in their own discipline, from all possible collaboration across fields. Unfortunately, such a categorical stance boils down to throw out the baby with the bathwater. No discipline is capable of solving the complex Bantu Expansion puzzle on its own.

13.2 Early Bantu speakers were not 'farmers'

Agriculture is a traditional component of the cultural package that is supposed to have accompanied the Bantu language dispersal and for whose spread Bantu speakers are held responsible. Pottery, metallurgy, the domestication of animals, and a sedentary way of life are other constituents of that package, either from the very beginning or from some stage in the Bantu Expansion onwards. Early Bantu speakers are usually staged as farmers. More than that, agriculture is nowadays commonly understood—most often implicitly—as a powerful dynamic behind the spread of Bantu languages. This was not the view of Wrigley (1960: 201, cited by Oliver 1966: 362):

Thus I see these people not as agriculturalists spreading over a virtually empty land, but as a dominant minority, specialized to hunting with the spear, constantly attracting new adherents by their fabulous prestige as suppliers of meat, constantly throwing off new bands of migratory adventurers, until the whole southern sub-continent was iron-using and Bantu speaking.

Although completely out-dated today, this citation nicely illustrates that agriculture has not always played such a central role in explanatory models for the Bantu Expansion. Especially adherents of the Farming/Language Dispersal Hypothesis have been industrious in placing agriculture in the forefront by promoting the Bantu Expansion as one of the clearest examples of the concurrent dispersal of early agriculture and languages (Renfrew 1992; Bellwood and Renfrew 2002a; Diamond and Bellwood 2003). In their view, both phenomena are tied up to such an extent that phylogenetic Bantu language trees are sometimes thought to simply mirror the spread of farming across this part of sub-Saharan Africa, both geographically and temporally (Holden 2002: 793). However, this assumedly intimate

interrelatedness is not so much based on substantial evidence, but rather on the analogy with large-scale language dispersals elsewhere in the world, such as the spread of Austronesian over Polynesia and Micronesia and Indo-European over large parts of Eurasia. For several reasons, it is rather unlikely that agriculture was a decisive driving force behind the Bantu Expansion, definitely not in its earliest stages.

The emergence of agriculture in Central Africa was “a slow revolution” (Vansina 1994–1995). As Neumann (2005: 249) points out:

[...] a dualistic concept of hunter-gathers and food producers as opposite and exclusive is not appropriate for Africa. In diachronic as well as synchronic perspective, Africa presents numerous examples of the “middle ground”, the large transitional zone in the continuum between hunter-gatherers on the one hand and agriculturalists largely depending on domesticated crops on the other [...]. Traditional land-use systems with little mechanization are still practiced on a large scale, and wild or semi-domesticated plants play a central role in contemporary African subsistence.

Moreover, the term ‘agriculture’ is polysemic. Crucial in this respect is the distinction between ‘cultivation’ and ‘domestication.’ Cultivation is “any human activity that increases the yield of harvested or exploited plants” and “can be practiced with wild or domesticated plants,” while domestication refers to the “genetic, morphological and physiological changes of plants,” a process which “only occurs under cultivation” (Neumann 2005: 250). Consequently, the presence of domesticated plants in the archeological record is conclusive evidence for cultivation. Notwithstanding, it does not automatically indicate agricultural intensification and surplus creation, commonly seen as pathways to societal complexity (McIntosh 1999: 4). In Neumann’s words “a single grain of domesticated sorghum does not justify calling the corresponding human population “farmers.”” (Neumann 2005: 250).

In the Central African archeological record, remains of domesticated plants are rare. Such discoveries are, for the time being, no more than some ‘single grains.’ Domesticated pearl millet (*Pennisetum glaucum*) was found in three South-Cameroonian sites, all dated between 2,350–2,200 BP, and in one in the Democratic Republic of the Congo on the Lulonga river dated around 2,200 BP (Eggert et al. 2006; Kahlheber et al. 2009; Kahlheber et al. 2014). In another South-Cameroonian site, remains of the pulse species Bambara groundnut (*Vigna subterranea*) were found, dated around 1,750 BP (Eggert et al. 2006). Both crop species do not belong to the crop inventory of rainforest agriculture which currently prevails in that area. They originate from more northerly savanna regions and are adapted to drier environmental conditions. They could only thrive thanks to the development of a distinct dry season during the third millennium BP

linked to a rainforest retreat (Kahlheber et al. 2009; Neumann et al. 2012). The only other archeobotanical evidence for plant cultivation during that period comes from the Nkang site, north of Yaoundé, where banana phytoliths were uncovered and dated to around the middle of the third millennium BP (Mbida Minzie et al. 2000). The fact that a domesticate of Southeast Asian origin would already have been present in that part of the rainforest 2,500 years ago has caused a great deal of controversy (Vansina 2003; Mbida Minzie et al. 2005; Neumann and Hildebrand 2009). Dedicated research on banana phytoliths in other Cameroonian sites did not result in new evidence, which sheds doubt on the banana phytoliths from the contemporary third millennium BP site Nkang. Moreover, the seasonal climate during that period was rather unfavorable for plantains which flourish under a humid climate without major oscillations (Neumann et al. 2012: 56).

In sum, direct archeological evidence for early plant domestication in Central Africa is scarce. The few remains of domesticates dating back to the third millennium BP indicate that Bantu speech communities knew how to cultivate plants. However, they are no warrant at all for assuming an economy dominated by subsistence agriculture, let alone one that creates food surpluses and demographic growth. What is more, the evidence for plant cultivation comes from archeological sites considerably south of the Bantu homeland and is dated at least two millennia later than the assumed start of the Bantu Expansion, i.e. some 4,000 to 5,000 years ago (Vansina 1995: 189; Blench 2006: 134, 136). There is no single piece of direct evidence for agriculture, neither as a trigger of the Bantu Expansion, nor as a powerful dynamic behind its early stages.

Calling early Bantu speakers ‘farmers’ also seems slightly exaggerated from the viewpoint of indirect linguistic evidence. The only crops for which vocabulary can be reconstructed in Proto-Bantu are yams and two *Vigna* species, i.e. the cowpea (*Vigna unguiculata*) and the Bambara groundnut (*Vigna subterranea*) (Bostoen 2014). The latter lexical reconstruction is well in line with the previously mentioned finds of Bambara groundnut in a southern Cameroonian archeological site, except that their dating is much more recent than the assumed time-depth for Proto-Bantu. Vocabulary for pearl millet and bananas cannot be regularly reconstructed to Proto-Bantu, but only appears in more recent ancestral language stages (Bostoen 2006–2007; Blench 2009). Proto-Bantu yam vocabulary has no correspondence in the archeological record where yams do not leave detectable traces (Neumann 2005: 262). Several terms for ‘yam’ are reconstructable to Proto-Bantu, but these can generally not be linked to a specific *Dioscorea* species (Maniacky 2005). The high number of lexical reconstructions for ‘yam’ suggests that different *Dioscorea* species were on the menu of early Bantu speech communities. It was one of the original starch ingredients of the staple porridge these ancestral societies prepared as a mash (Ricquier and Bostoen 2011). Moreover, all Proto-Bantu yam terms were inherited from an older language stage, strongly

suggesting that several yam species already belonged to the diet of Benue-Congo speakers before these reached the Bantu homeland (Maniacky 2005; Blench 2006).

Given the time-honored importance of yams in their subsistence economy, it is reasonable to assume that early Bantu speakers started to protect them in order to increase their return. Even if this basic form of plant cultivation might have begun before the Bantu Expansion, it was most probably practiced on the wild ancestors of those domesticate yam species which are nowadays common in this part of Central Africa, such as *Dioscorea rotundata*, *Dioscorea cayenensis*, and *Dioscorea dumetorum*. Hence, those Proto-Bantu yam terms cannot be taken as circumstantial evidence for subsistence agriculture.

Proto-Bantu plant vocabulary also contains names for several wild (tree) species, which have been widely protected and cultivated in equatorial Central Africa, but have never become domesticates, such as the oil palm (*Elaeis guineensis*), the bush candle (*Canarium schweinfurthii*), the African plum (*Dacryodes edulis*), and the cola nut tree (*Cola sp.*) (Bostoen 2014). The early economic importance of the oil palm and the bush candle is well attested in the archeological record of West and Central Africa, where the remains of both oleaginous plants have often been found from c. 5,000 BP onwards in association with other indicators of plant food-processing, such as pounding/grinding equipment, polished stone tools, and pottery (de Maret 1994–5; D'Andrea et al. 2006).

Finally, only quite generic verbs and nouns, whose original referent remains vague, can be reconstructed to Proto-Bantu, such as **-dīm-*, 'to cultivate', **-tém-*, 'to cut; to cut down; to clear for cultivation', and **-gòndà*, 'garden'. Such vocabulary can be taken as indirect evidence for some sort of plant cultivation, but definitely does not point towards subsistence agriculture. If that were the case, one would expect specialized vocabulary for typical farming practices, such as planting, sowing, making mounds, weeding, and harvesting, or for typical farming utensils, such as the hoe, the digging stick, and the bush-knife (Jacquot 1991). No such reliable Proto-Bantu reconstructions exist.

Therefore, let us stop calling early Bantu speakers 'farmers' and by extension, considering the Bantu Expansion as a typical instance of a farming/language dispersal.

13.3 Pots do not speak Bantu, but their producers did

Let us start this section with a truism: "potsherds do not speak Bantu or any other language" (Robertson and Bradley 2000: 306). As a consequence, even if ceramics are no doubt the most abundant residue in the Late Holocene archeology of Central Africa, the linguistic profile of their producers will always remain a matter of assumption, or even pure conjecture, as some would argue. Reviewing the

'Bantu Problem', Eggert (2005: 321) stresses that "[...] it is hardly adequate to prematurely link, as has been so frequently done, archaeological finds and features with linguistic phenomena and to suggest possible routes of language diffusion of whatever nature." He is referring here to the state of archeological research in Central Africa which he describes as resembling "a walk in a pitch-dark night where vision is dependent on the perimeter of the torchlight and the night is boundless" (Eggert 2005: 315). He particularly bears in mind the archeology of the Inner Congo Basin whose oldest and stylistically distinctive pottery cannot be linked to ceramics of other regions, neither within nor outside the forest, which leads Eggert (2005: 321) to the conclusion that "Until archaeology can solve this specific problem, archaeologists should not actively participate in any debate on 'Western Bantu expansion.'" It would decidedly be unwise to throw caution to the winds when juxtaposing linguistic and archeological evidence (Möhlig 1989). But still, pottery does constitute the most important archeological signature of the Bantu language dispersal, also in the Inner Congo Basin. Since all languages currently spoken there belong to the Bantu family and since no discontinuity is discernible in the archeological sequence that could reflect profound language change, the appearance of the ancestral Imbonga pottery, from 2,350 BP onwards, does mark the earliest immigration of Bantu speakers into the Inner Congo Basin (Wotzka and Bostoen 2009). This reasoning holds for many other Bantu speaking regions in Central Africa.

Diamond and Bellwood (2003: 598) definitely exaggerate the role of agriculture when they characterized ancestral Bantu speakers as "farmers" expanding "out of their tropical West African agricultural homeland after 1,000 B.C. over most summer-rainfall regions of sub-equatorial Africa." However, they were right in claiming that they were "bearing their own archaeologically visible culture." Pottery is unmistakably the most important exponent of this culture thanks to its excellent conservation, even in the little preservative soils of Central Africa. After its initial emergence in the Sahara between 9,500 and 8,500 years ago (Phillipson 2005: 252), pottery technology slowly spread southwards between 8,000 and 6,000 BP (Lavachery 2001: 240). Archeological and linguistic evidence concord to suggest that Benue-Congo-speakers coming from the North introduced the craft in the Grassfields of Cameroon from where early Bantu speakers spread it further south into western Central Africa after several millennia of local development (Bostoen 2005, 2007).

The key archeological site in the Bantu homeland area is the Shum Laka rock-shelter where pottery starts to appear around 7,000–6,000 BP in the upper Holocene layer as part of a new industry also including bifacial macrolithic tools of basalt and tuffs as well as polished stone tools. These new technologies gradually replace the pre-existing microlithic Late Stone Age quartz industry and become predominant around 5,000–4,000 BP. Even if these changes in technology suggest evolution in subsistence organization, no direct evidence has been found neither

for food production nor for sedentary life in that period. Associated fauna and flora remains indicate that hunting and collecting were important subsistence strategies during those times (Lavachery 2001).

The earliest direct evidence so far for sedentarism within the confines of the Bantu domain comes from the Central-Cameroonian site of Obobogo, several hundred kilometers south of the Bantu homeland. The oldest attestations of villages are 3,000 to 3,500 years old (de Maret 1992). For the time being, a temporal gap of at least one millennium separates Ceramic Late Stone Age pottery traditions in the Grassfields from their typologically related counterparts around Yaoundé (Clist 2005: 715–6). Apart from scanty archeological data, a slow process of adaptation to the Equatorial forest ecozone could account for the considerable time gap compared to the relatively limited distance.

This slow development is actually well reflected in the Bantu language tree. Yaoundé is exactly the area where a secondary hub of language expansion is situated, i.e. the split-off point between the Mbam-Bubi and North-West Bantu branches. From this center of expansion in the wider Yaoundé region, the North-West ancestral node fell apart in a number of Bantu language clusters occupying now the southern Cameroon and adjacent regions (Grollemund 2012). Divergence within the North-West cluster is thus to a great extent the result of a fairly local fragmentation in southern Cameroon and immediately neighboring regions due to slow and gradual expansions, which predominantly went in south-easterly and south-westerly direction and not further south than c. 2°N.

Archeological data also point towards a slow development of village life in southern Cameroon and adjacent areas, where a densification of human settlement is only observed from the middle of the third century BP (Clist 2005: 721–38). Moreover, from about 2,700 BP, villages also start to appear in three other regions of Central Africa: (1) the area around Libreville and the Gabon estuary and more inland on the Lopé and Ogooué Rivers (Assoko Ndong 2002, 2003; Clist 2005); (2) Pointe-Noire along the Congolese coast (Denbow 2012); and (3) a bit later, the Central Congo Basin (Eggert 1987; Wotzka 1995). Village sites not only multiply during that period, but also become geographically much more widespread than before. In each of these regions, the emergence of village structures and the introduction of pottery go hand in hand. What is more, all the earliest ceramics of Bantu speaking Africa south of the Grassfields are part of a material culture resembling the one of Shum Laka around 5,000–4,000 BP and Obobogo a millennium later. Large quantities of pottery are found in association with polished stone tools, such as axes and hoes, and with fruit remains of the oil palm (*Elaeis guineensis*) and the bush candle (*Canarium schweinfurthii*). Archeological sites in western Central Africa from that period clearly manifest a chronological gradient indicating that sedentary pottery-producing communities spread from central Cameroon to the Lower Congo and the Central Congo Basin in a timespan of about one millennium, i.e. from c. 3,500 to c. 2,300 BP. Admittedly, as Eggert (2005: 315) stresses, “we

do not possess any firm material (i.e., ceramic) link between these regions themselves.” However, in all regions concerned, the newly emerging material culture manifests a general homogeneity and has no affinities whatsoever with earlier Stone Age technologies—if these already existed. Moreover, it turns up in regions whose linguistic landscape is nowadays uniformly Bantu. It can therefore be safely assumed that these ceramics and the associated material culture are the archeological signature of the initial Bantu language dispersal in Central Africa.

The rapid proliferation and significant geographical spread of village sites in Central Africa is also well reflected in genealogical Bantu trees. As demonstrated by several lexically-based studies of internal Bantu classification (Bastin et al. 1999; Grollemund 2012), the first branches to split off, such as Mbam-Bubi and North-West Bantu, are confined to Cameroon and immediately neighboring regions. Subsequent western Bantu branches, such as Congo Basin, West-Coastal, and South-West Bantu, expand the Bantu domain to the Congo Basin in the East and to the Lower Kasai and Congo regions and even the Zambezi savannas in the south. Palynological, archeological, and linguistic data suggest that this rapid expansion of Bantu speaking village communities was facilitated by a climate-induced crisis which affected the Central African forest block during the third millennium BP (Schwartz 1992; Maley 2001; Oslisly 2001; Neumann et al. 2012; Bostoen et al. 2013; Bostoen et al. 2015).

13.4 Bantu languages spread through human migration

After the preceding pages, it may seem beyond the need for further argument that the Bantu language dispersal involved human migration. However, migration as an explanatory model has been severely criticized (Lwanga-Lunyiigo 1976; Gramly 1978; Schepartz 1988; Vansina 1995; Robertson and Bradley 2000). This criticism was certainly dictated by the biased focus on migration and conquest that early scholars displayed. In an article that reads today as a full-blooded racist pamphlet, Johnston (1913: 413) characterizes Bantu speakers as peoples sending out their “hordes of invaders” and claims that “All Bantu Africa of today, except the heart of the Congo Forest and the regions south of the Zambezi, must have been more or less thickly populated before the Bantu impressed with extraordinary rapidity and completeness their own type of language on the tribes they conquered” (Johnston 1913: 391–2). Later accounts shifted the emphasis from conquest to demographic explosion, but still stressed migration as the single historical event underlying the spread of the Bantu languages (e.g. Oliver 1966).

The uncritical emphasis on (mass) migration prompted several attempts to account for the Bantu language dispersal and archeological phenomena commonly associated with it as in situ developments (Lwanga-Lunyiigo 1976; Gramly 1978; Robertson and Bradley 2000). Gramly (1978: 112) claims that

Although the premise of human migration is realistic and preferable when accounting for language spread in formerly depopulated areas of the globe, in sub-Saharan Africa it is desirable to argue that language evolved *in situ*. [...] In short, it is argued that Bantu was spoken for millennia in many of the same regions where it is found today and that the Negro and other African populations have remained in lands which they occupied before the advent of food-production, ceramics, and metals.

Inspired by the plea of Vansina (1995) for a wave rather than a tree model of Bantu language spread, Robertson and Bradley (2000: 287) argue that “the development of the Early Iron Age in Africa was a process rather than an event; that autochthonous populations gradually adopted the suite of traits that define the Early Iron Age, without any large-scale movement of peoples.” These studies have the merit of bringing to the fore alternative population dynamics to account for the Bantu Expansion. Nonetheless, even if migration was not the single historical event underlying the Bantu language dispersal, it undeniably played a crucial role.

Apart from the archeological data presented, molecular anthropology has supplied evidence indicating that the Bantu language dispersal did involve human migration, and not just the diffusion of languages and technology. While languages, culture, and ethnic identity can change relatively rapidly, genetic reversal can only happen through immigration and replacement of the pre-existing populations. Thanks to the relative temporal stability of DNA material, genetic data from present-day populations can be relied on to draw inferences about pre-historic demographic events. Genetic evidence pertaining to the Bantu Expansion cannot be discussed in detail here, but was extensively reviewed elsewhere (Pakendorf et al. 2011).

One strong indication in favor of migration is the fact that Y-chromosomal diversity in Bantu speaking populations is much lower than mtDNA diversity. Amongst most Bantu speech communities, only two Y-chromosomal haplogroups occur in high frequencies: E1b1a8 and E1b1a7a. None of these haplogroups is a Bantu-specific marker and they are also not entirely limited to Niger-Congo-speaking populations, even if they are predominant there. However, their distribution in African populations suggests that male migrants carrying these haplogroups were involved in the spread of Bantu languages. Remarkably, Y-chromosome diversity does not diminish with distance from the putative homeland. This absence of serial founder effects indicates either that migrating groups were large enough not to undergo reduction in genetic diversity or that an original founder event was erased by later migrations. De Filippo et al. (2012) argue that both the homogeneity of Y chromosome haplogroup composition and the pattern of haplotype sharing between Western and Eastern Bantu groups suggest that an initial rapid spread was followed by backward and forward migrations.

This pattern of ‘spread over spread over spread’ is actually in line with abundant linguistic evidence pointing towards long-term Bantu-internal language contact, which induced convergence between Bantu languages that were originally more distant as the outcome of ancestral divergence. As Schadeberg (2003: 158) puts it: “[...] Bantu languages have the remarkable ability to act much more like a dialect continuum than as discrete and impermeable languages. Such progressive differentiation and convergence across dialects or languages is commonly referred to as the wave model (as opposed to the tree model).” The difficulty to find bundles of coinciding shared innovations neatly delimitating genealogical units seriously hampers the applicability of the Comparative Method for internal Bantu classification.

MtDNA diversity among and within Bantu speech communities is much higher. This higher heterogeneity could be the result of successive waves of migration of peoples having a different genetic profile or of one single migration event involving a large and genetically very diverse population. However, a more plausible explanation is that migrating Bantu speech communities intermarried with indigenous groups and that this exogamy especially involved women from local non-Bantu speaking groups. The discrepancy with Y-chromosome diversity is indeed indicative of sex-biased sociocultural practices, such as patrilocality and polygyny. There is evidence for the assimilation of indigenous hunter-gatherer women into immigrating Bantu speech communities based on identification of characteristic mtDNA polymorphisms, which are easily detectable indicators of admixture. Female-mediated gene flow from local non-Bantu speech communities is signaled by the significant presence of mtDNA haplogroups characteristic of Central African ‘pygmies’, such as L1c1a, or Southern-African Ju-speakers (Khoisan), such as L0d, in the maternal gene pool of certain Bantu speaking groups. Several studies have observed such sex-biased admixture between groups of food producers and hunter-gatherers (Destro-Bisoli et al. 2004; Wood et al. 2005; Tishkoff et al. 2007; Quintana-Murci et al. 2008). The fact that certain Southern-African Bantu speech communities have a frequency of 3–7% of the ‘Ju-specific’ Y-chromosomal haplogroup A3b1 indicates that the gene flow is not exclusively female-mediated and that taboos on intercourse with men from foraging communities have not always been respected (Wood et al. 2005).

Prehistoric contact between migrating Bantu speech communities and autochthonous hunter-gatherers groups is also reflected in the Bantu languages themselves. This is, for instance, so in the widespread Bantu root **-túà*, which is used, amongst other things, to designate ‘pygmies’ in Central Africa and Khoisan speaking foraging communities in Southern Africa (Schadeberg 1999). The generic term *Batwa* referring to first-comers has been crucial in conveying social distinctions between immigrants and autochthons that have been of vital importance ever since Bantu speakers started to settle in the rainforest (Klieman 2003: xix).

A more profound linguistic effect of prehistoric contacts between Bantu speaking immigrants and local communities is the substratum influence from hunter-gatherers languages that some Bantu languages underwent. It can be considered second language 'interference' from non-Bantu speakers as a consequence of their shifting to a Bantu language. Such substratum influence is clearly discernible in several southern Bantu languages having click phonemes. Since click phonemes cannot be reconstructed to Proto-Bantu, their acquisition in these and other Bantu languages is the result of contact with Khoisan languages. However, the occurrence of these borrowed phonemes is not restricted to words of non-Bantu origin, but they also spread in native vocabulary (Voßen 1997; Güldemann and Stoneking 2008; Bostoen and Sands 2012). The simple proximity of Bantu and Khoisan speech communities cannot account for the transfer of these loan phonemes. It involved a more intense contact and some degree of bilingualism. Genetic studies indicate indeed that the sex-biased incorporation of non-Bantu speakers needs to be significant enough to give clicks a chance to survive. In the case of the Fwe from western Zambia, who speak a Bantu click language, nearly one quarter (24%) of the Fwe mitochondrial gene pool is of Khoisan origins (Barbieri et al. 2013). Similar percentages of Khoisan-specific mtDNA haplogroups have been observed amongst speakers of the southeast Bantu click languages Xhosa and Zulu (Salas et al. 2002). In several other southern African Bantu speech communities, lower percentages of the same Khoisan-specific mtDNA haplogroups were observed (Salas et al. 2002; de Filippo et al. 2009; Barbieri et al. 2013). Clicks were not transferred to these Bantu languages. However, the incorporation of high numbers of non-Bantu speakers is a minimal condition for clicks to become phonemes in a Bantu language, but not sufficient in itself. Clicks did not make their way, for instance, to Shanjo, a language from the Western Province of Zambia very closely related to Fwe, although the mtDNA haplogroups L0d and L0k also reach 16.7% there (Barbieri et al. 2013). Similar cases of click-less Bantu languages in spite of relatively high degrees of Khoisan-specific mtDNA are known from Mozambique (Salas et al. 2002). Socio-cultural factors, such as in-group identity and taboo, are no doubt decisive for the success of clicks. It is well known, for instance, that *hlonipha*, a taboo whereby names of deceased male in-laws are avoided facilitated the extensive restructuring of the inherited Bantu phonology and the lexical proliferation of clicks in Xhosa and Zulu (Sands and Güldemann 2009). In case of intense contact between Bantu and Khoisan speakers, one would expect to also find substratum influence in domains of the language other than phonology, but this has never been solidly demonstrated so far.

Such is the case for Bantu languages spoken by Pygmy communities in Central Africa, where the search of possible substratum traces is seriously hampered by the total absence of comparative data. There are no longer any Central African hunter-gatherer groups with a language 'of their own'. The overall majority of

Central African Pygmies speak a Bantu language, some an Ubangi (Niger-Congo) or Central-Sudanic (Nilo-Saharan) language (Bahuchet 1996). Attempts to discover a common Pygmy substrate in the languages spoken by these hunter-gatherers groups have been in vain. Moreover, the assimilation of Central African hunter-gatherers into expanding Bantu speech communities also seemingly happened without a major linguistic impact, at least not in the form of a substrate still easily discernible today. Extensive contact with other speech communities, not necessarily foragers, did lead to still visible interference, such as the presence of labial-velar stops in several northern Bantu languages left by shifting Ubangi speakers (Bostoen and Donzo 2013). Such admixture would be difficult to detect genetically due to the similar genetic composition of the speech communities concerned.

13.5 Conclusions

In the present chapter, the following facts and fiction about the Bantu Expansion have been discussed:

1. Early Bantu speakers were not farmers and the Bantu Expansion is not a textbook example of a farming/language dispersal;
2. The Bantu language dispersal did involve the actual migration of Bantu speakers whose languages further expanded through their adoption by non-Bantu speakers;
3. Early Bantu speaking migrants did bear their own archeologically visible culture of which pottery was an important exponent. Ceramic traditions that emerge between c. 3,500 and 2,300 BP are part of the archeological signature of the initial dispersal of Bantu languages in the equatorial rainforest.

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