CONVERGENCE AND THE RETENTION OF MARKED CONSONANTS IN SANGO: THE CREATION AND APPROPRIATION OF A PIDGIN

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1. Introduction

In Uriel Weinreich’s pioneering book, Languages in contact, a work to which many are indebted (I read it more than fifty years ago at the suggestion of André Martinet, editor of Word, after I had submitted a paper on Pidgin Sango, discussed again here), languages are said to be “in contact” “if they are used alternately by the same persons.” For him contact appears to have been a cognitive phenomenon, because “the locus of contact” is language-using individuals (1953:1). And he quotes approvingly the statement, in a slightly different context, that “In the last analysis, it is individuals who respond to and influence one another... Individuals are the dynamic centers of the process of interaction” (1953:6fn18)

For some research, such a psychological perspective is a necessary one, but for my study of the creation of Sango a social perspective is also required. 1 (Every perspective possible should be used, a truth evident in the number of approaches that have appeared in theoretical linguistics since the ‘eclipsing’ emergence of generative grammar in the 1960’s.) In this present work I focus on data that are called historical as well as on data that are linguistic. They are the coordinates whose convergence in a certain place and time leads to an understanding of what happened in what we call contact, in this case the abrupt, disorderly, and brief interaction of persons with extremely different linguistic histories. (Another view is that the evolution of pidgins and creoles—PC’s they are called—is not abrupt,2 but it need not detour our present discussion.)

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1 The reader should not be alarmed at the word creation even though there are alternative ways of saying the same thing. The variation in usage in the literature on pidgins is rhetorical more than substantive. But notice the way it is used in evolutionary discourse: “the divisive influence of the ice sheets’ waxing and waning across the [North American] continent had a creative effect and probably generated many of our most recent species of shrews” (Adrian Forsyth, Mammals of North America, 1999:26).

2 Creoles were formed gradually. It is time that we stopped talking about the formation of creoles as an instantaneous mélange of colored liquids in a bottle (Mufwene 1992:137, 145).
2. Colonial context

Sango came into existence in the few years after the arrival of the first colonial expedition at the source of the Ubangi River about 600 km east of what is now Bangui, the capital of the Central African Republic. (From this latter western area the river begins to flow southward; it does not figure in the origin of Sango.) The expedition came late in 1887 in the name of King Leopold II of the Belgians consisting of a small steamer and canoes and a few white and African personnel and left in little over a year to return to Leopoldville, 2,000 km away, the whites’ time being spent primarily in the purchase of elephant tusks. In June of 1889 the same officer, Alphonse Van Gele, arrived, now with more personnel and staying for eighteen months. About the same time, the French arrived at Bangui with a much smaller party, making their way slowly up the Ubangi River in indigenous canoes, competing with the Belgians for control of its right (northern) bank, which was finally ceded to the French by treaty in 1894. In the meantime, a few administrative and trading posts of private companies (Belgian, French, and private) had been founded, the latter interested mostly in buying tusks.

Very quickly a jargon appeared on the river, documented by statements in 1892 and 1893, but it is in 1896 that we have an attestation of what a missionary priest called “this barbarous river language that enables you to speak with all the river tribes. It’s not a language, but some kind of volapuck”. Since this is a derogatory allusion to an international language created by a German a few years earlier, we can translate volapuck (or volapiük) as jargon, concoction, or ersatz language. Attestations then follow year by year until the publication of grammatical notes and a “vocabulary” (Calloc’h, 1911). Pidgin Sango was very likely a stabilized idiom by 1900, and it spread quickly northward in France’s Haut-Oubangui (Oubangui-Chari before it became the C.A.R.) and southward in the Congo Free State as the occupation of the region continued with African soldiers who spoke the young language.

Significant contact with the indigenous peoples first took place along the banks of the Ubangi—and the Mbomu and Uele rivers, which flow into it in the east. Almost entirely riverine, similar in having a culture based on the use of the river with huge dugout canoes for fishing and for trade, they speak languages of two groups of the Ubangian family of Niger-Congo: Gbanzili and Ngbandi. The bush cultivators behind them, more or less clients of those on the river, speak varieties of Banda, but in the period when Sango was coming into existence, Bandas had little direct contact with colonial forces, and those around Bangui, who did, had little opportunity to participate in its creation. Gbanzilis were chronologically the first to be involved in colonization, because they were the closest geographically to Bangui, but they did not seem to have served in transporting the Belgian expeditions as much as the Ngbandis did; in any case, they travelled mostly only to the edge of Ngbandi territory upriver, where Ngbandis usually took over. The Gbanzilis were not a numerous people, whereas the Ngbandis were. The latter, moreover, were recruited for transportation the whole length of the upper Ubangi. Since the political aims of both the Belgians and the French drove them determinedly eastward, further up the Mbomu River, in territory that was familiar to the Ngbandis, some of the latter even continued in the service of the Belgians over land toward the Nile River.

3 The spelling of his name was suggested to me by a Flemish-speaking Belgian historian. In the years when French was the prestige language francophone spellings were used: e.g., Vangèle.
4 “Je ne parle pas de ce langage barbare de la rivière, qui fait que tu te comprends avec tous les tributs riveraines. Ce n’est pas une langue, mais un volapuck quelconque” (Father Raoul Goblet, Mission Sainte Famille, 31 July 1896, Archives, Congrégation du Saint-Esprit, Chevilly-Larue, France).
5 I use the word Ngbandi in learned discourse to simplify exposition with respect to the people who, since colonization and on the initiation of whites, call themselves Sango and Yakoma. My nomenclatural practice should not be taken as a denigration of a particular ethnolinguistic group of Central Africans.
It is clear that if an indigenous language were going to be used by the invading foreigners, it would be that of the Ngbandis, who were not distinguished severely by dialects or divided by morbid animosity. These Ubangians happily traded with whites for things that they could use in trade with their Nzakara and Banda clients to the north and bush Ngbandis to the south, where the greatest number of them are found, and they provided canoes and crews in tremendous numbers over long distances and periods of time, during which they had intimate contact with the foreigners, especially the blacks. To make a round trip from one end of this part of the Ubangi River to the other took about a month, with stops every evening for a meal and rest. Villagers would have created their MacDonalds to cater to the needs of the travellers on the watery expressway. There was as much contact on these occasions as there would be—using a different metaphor—between vegetables in a rich pot of minestrone! For one French expedition in 1897-1898, 4,500 to 6,500 canoers were required, and in a single convoy they could number 700, 900, 1,500, or more. To summarize, we should note that Ngbandis were

(a) receptive, submissive to colonial authority, cooperative, enterprising, and venturous;
(b) cohesive culturally, socially, and linguistically;
(c) numerous;
(d) skilled in river travel;
(e) available for recruitment, not obliged to work in gardens for sustenance; and
(f) distributed over the Ubangi River basin in the area most critical for the colonizers.

3. The foreigners

The foreigners, on the other hand, constituted a small, extremely diverse, and extremely dependent mass of humanity despite the wealth and power exhibited in the steamboats and arms of the colonial force and the determination and aggressiveness revealed in the behavior of both whites and Africans.

As to numbers, on the first Belgian expedition of 1887-1888 there were four whites and roughly forty-five (ninety, according to one source) Africans. On the second Belgian expedition there were eleven whites and 156 Africans. For the final decade of the century numbers are difficult to establish for the Free State, but for the French there is considerable information. Although the Nile campaign occasionally sent swells of men through the region (350 arrived in May 1894, a very large number at that time), there were in 1896-1897 only five principal French posts and two nascent Catholic missions, the latter only in the west, far from Ngbandi territory, on the Ubangi River’s banks, and the militia consisted of around 200 men. By this time, as noted above, an identifiable jargon had emerged.

As to linguistic diversity among the newcomers, it was much greater, it seems to me, in the French work force, with a preponderance of so-called ‘Senegalese’ West Africans speaking Atlantic and Mende languages, whereas in the State’s force they were mostly speakers of Bantu languages, the so-called ‘Zanzibaris’ from East Africa and ‘Bangalas’ from around the equatorial confluence of the Congo and Ubangi rivers. (On the latter more is said below.) This difference, in conjunction with the respective difference in the numbers of “auxiliaries” brought to the region, is a significant factor in the emergence of Sango. This is to say that the birth of Sango took place in a Belgian context rather than a French one, a conclusion I have come to recently after having re-examined my data.

What these African newcomers had in common was, on the one hand, the necessity to interact with the Ngbandis for their daily needs and, on the other hand, the experience they had had with
other contact languages to fend for themselves for food, firewood, and shelter. They were already veterans in what might be called colonial contact. From the moment of their recruitment, and for many, even before that, they had worked and traveled among very diverse groups of people. All, of course, had traveled from the western coast (almost 300 km over land to the Pool), through regions where pidginized Kongo and Bobangi were emerging to become what we know today as Kituba, Bangala, and Lingala. In fact, they were contributors to their creation! (See Samarin 1986a, 1990.) And now they encounter another language, whose words they would put together in a contextually meaningful way. *Ils se débrouillaient!* 

Here is a colorful example of the linguistic aspect of field colonialism. A Belgian “explorateur” who is traveling, probably in 1892, with a contingent of militia (*miliciens*) from the equator to the Belgian post at the extreme east of the Ubangi River basin, starts to open a can of food to eat, when, he reports

> my little boy, a child who had been given to me at Zongo [directly opposite of Bangui on the river] to work for me … came and asked, ‘Kusala kobe kobe, and, obviously seeing that I don’t understand, looking at me with his clever eyes, he makes a gesture of eating [in central Africa, fingers of the right hand brought to the mouth], showing me a live chicken that he holds in his hand. Taking the risk, I say yes, without any idea of how he is going to pull it off.7

Besides, the newcomers were probably not much interested in learning Ngbandi, because they did not expect to remain very long among its speakers. They just needed to get through each day. It is therefore not true of Sango that “*pidginization is second language learning with restricted input*” (Romaine 1988:204). If such a statement be retained to guide one in understanding some aspects of language contact, the concept of *learning* would have to be clearly defined.

4. Pidginization with convergence

Perhaps the linguistic challenge was not a great one. Most of the Africans spoke tone languages with at least two levels although Ngbandi has three. The rest of the phonology was not very different from that of their own languages. And they did not need much of Ngbandi’s morphological grammar, most of which is realized tonally, to get along. Some of them, however, must have thought that the absence of a copula was strange, because they introduced one of their own, an innovation that Ngbandis quickly accepted when speaking the jargon (Samarin 1986b), but not as consistently, as my recent research reveals.

With this characterization, some might like to consider Sango a proto-typical pidgin, but in a few critical ways it is not. In this work we look only at phonology. For example, it has been said that

6 We might note the report that of the officers of the Senegalese “Régiment de Tirailleurs” at Mobaye in March 1895, six had had experience in Senegal, four in Dahomey (Colonel [illegible], Directeur de la Défense, approved by Ministre des Colonies [name illegible], signed, Paris, 12 August 1895, Archives Nationales, Gabon-Congo XVI.13, Aix-en-Provence). Many Senegalese, of course, spent several years in the colony. For example, it was reported that in the period 1896–1897, of one hundred Senegalese on the Ubangi River, ninety had already been “libérables” (eligible for being mustered out) for two and three years beyond their recruitment period (Bobichon, 1899: 10).

7 “… mon petit boy, un gamin qui a été mis à mon service à Zongo … vient me demander: ‘Kussala kobe kobe’ et voyant bien que je ne comprends pas, en me regardant de ses yeux malins, il me fait le geste de manger, en me montrant un poulet vivant qu’il tient dans la main. A tout hasard je réponds oui, sans trop savoir comment il va se tirer d’affaire” (La Belgique Coloniale, 2nd year, N° 45, 8 November 1896, 539-540).——This is a Bantu version of Sango, apparently meaning ‘Make food’. According to the version that was being used by whites, *kusala* (with its prefix *ku*) was the generalized (‘finite’) form for ‘do, make’. It has been retained in Sango for the noun ‘work’, *sala* (nowadays *sara*) being the verb. *Kobe* is also a Sango word acquired from some foreign source for ‘food’ or in particular the staple mush that is used for dipping up a sauce (*boule* in French).
“The sound inventory of pidgins, particularly when compared to their lexifier and substratum languages” is small (Mühlhäusler, 1986:148). And it has been averred that one of the features “typically associated with pidgins” is the “avoidance of ‘difficult’ sounds (i.e., those which are ‘highly marked’ in phonological terms” (Sebba 1997:39).

The phonology of Ngbandi is intact in Sango except for the apparent disappearance of the prenasalized fricative /mv/ in recent years, which, in any case, occurred in only a few words in Sango and occurs rather infrequently in Ngbandi. This retention of a characteristic Ubangian set of ‘difficult’ consonants is easily explained by the well known phenomenon of convergence, because they are found in the West African and Bantu languages (or closely related dialects) that may have been spoken by the foreigners who were creating in the 1890’s (or earlier) a working vocabulary in the jargon.

Information has been obtained for fifty-seven West African languages from four families to determine the distribution of Ngbandi-like consonants as a West African areal feature:

Kru, 8 (Liberia, Côte d’Ivoire)
Kwa, 16 (Liberia, Ghana, Côte d’Ivoire, Benin, Togo)
Mande, 24 (Senegal, Sierra Leone, Liberia, Guinea, Ghana, Mali, Burkina Faso, Côte d’Ivoire, Benin)
West Atlantic, 9 (Senegal, Sierra Leone, Guinea, Burkina Faso)

These are displayed in the tables below, where Ngbandi consonants are identified by cell shadowing. The inventories are seen to be more or less congruent. Most of these West African languages have contrasts between p/b, t/d, and k/g. (For an overview see Bendor-Samuel 1989.) They also have the nasals m/n/p. Among the fricatives most have f, with somewhat fewer v; likewise, s is more common than z, as l is more common than r. Finally, h, w, and y are quite common. The co-articulated stops kp/gb are widespread, but they are absent in some West Atlantic languages. The only series egregiously absent is that of prenasalized stops: mb, nd, ng, ngb, although the first three occur in two Mande languages and in three West Atlantic languages.

Although West African languages could have contributed to the maintenance of Ngbandi’s consonantal inventory, this is not likely, because their speakers came in small numbers and were not involved with Ngbandis as much as the Congolese were. In the colonial archives one rarely finds a
record of 220 Senegalese being in one place, as they were in March 1895 near the Sudan. In small numbers, on the other hand, West Africans were ubiquitous wherever whites were found: at every post and station, and fewer at trading “factories” and Catholic missions. They were the ones who were responsible for guarding the storehouses, collecting provisions for others at encampments, for supervising indigenous labor at the posts, and for recruiting canoes and canoers. They also accompanied every convoy to protect the transportation of cargoes. They might, therefore, have had more influence than their numbers might suggest.

The Bantu-speaking Congolese were much more numerous than were West Africans, beginning with a small group in the first colonial expedition (cited above), which had about twenty to thirty “natives” or Bangalas, as they were also called. (This was a term attributed in the early years indiscriminately to most of the riverine inhabitants on the Congo River around the station at Bangala, which came to be called Nouvelle Anvers and now Mankanza.) Many of them would have been conscripts from the Belgian pool of liberated slaves, who were obliged to “reimburse” the State for their liberation by serving it for a number of years, and “captives” from what were considered insubordinate or insurgent villages. In 1890 there were 600–700 of the so-called “indigenous volunteers” in the army, and in 1893 Bangalas made up most of the 3,500 men in the State’s militia or “armée coloniale” known as the Force Publique (Wauters 1890:220, 268; Vincent 1895:409). In the period of 1892–1900 from the Bangala area alone 5,830 men were levied, and cumulatively in the period 1892–1914 a total of 13,701 (Flament 1952).

A large number of Bangalas would most certainly have been sent to the Ubangi region. Because official documents are scarce, those from before the establishment of the Belgian colony in 1908 having been destroyed by decree, we must infer this conclusion from the objectives and the policies of the State, which cannot be adequately described here, and on the basis of the following facts.

The language being used by many of these so-called Bangalas was Bangala, the pidgin precursor of Lingala. It was sufficiently important in the State’s Sudanese campaign in the southern Lado Province that linguistic material was published to assist the whites (e.g., Mackenzie 1908; Wtterwulghe 1903). As a result of that campaign, moreover, so many of these Bangalas stayed in the northeastern corner of the State, where there is a large population of Zandes, speaking a Ubangian language, that this language became its lingua franca, which has retained its pidgin characteristics while Lingala evolved. It is hard to believe that, given the predominance of Bangalas in this region, they would not have had a significant presence in the area where Sango was emerging. After all, a Belgian officer reported when writing in the very midst of the Ngbandis who came to be called Sango, in 1893, that “Songo,” as he called it, was the most widely spread language in the Ubangi, one that “all of us know more or less well.” There surely must have been frequent and significant contact between Bangalas and Ngbandis, as well as with others speaking the Ubangian jargon.

Grammatical sketches of a number of the Bantu “parlers riverains” (river languages) reveal that fourteen of them have the co-articulated stops kp and gb and one mv. For the consonants of one of these languages, Likátá, is chosen by way of example, for which see Table 5.

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13 Another inventory records 91 Africans: 40 Zanzibaris, 32 Bangalas, six libérés children who serve as boys, two persons from Accra, one Hausa, two women, and two “Mobanghis” (“Récapitulation générale” for 1888, Alphonse Van Gele archives, Ivoire I, Tervuren, Belgium). The last were probably Bobangis from the lower Ubangi river. Yet another inventory is this one: 17 Hausas and Zanzibaris, 16 canoers, and 24 natives from the equator (Lotar 1937: 68-69).
14 Raph[aël] Stroobant, Mouvement Géographique, Vols. 14-22, 1896, writing at Banzyville, 9 March & 10 April 1893. He was wrong about the indigenous distribution of Ngbandi, but correct about its use as a lingua franca.
Apparent contradictory to my argument of the contribution that equatorial Bantu languages may have had in the preservation of Sango’s typical consonants is the fact that none of the marked ones occur in the Bantu words that Sango acquired. This fact is based on my collection of ninety-six such words that have allegedly been or are still in the language. (A few words that were used fifty years ago, for example, have been replaced, based on my own experience, by French words. Since more research needs to be undertaken, one might anticipate other words.) In all these words, we should note, phonetic units that are foreign to Ngbandi have been changed: e.g., prenasalized voiceless stops were replaced with prenasalized voiced stops (mp > mb) or the unit is reduced to a simple consonant (nk > k). However, since there is some evidence of simplification in other Bantu lingua francas, simplification may have preceded the adoption of the words in Sango: e.g., mpasi ‘suffering’ (Swahili) > pasi ‘problem’ (Lingala), or it may have occurred in more than one place at about the same time.

Of this corpus of Bantu transfers, as they are now called instead of borrowings or loan words, nineteen are found in Swahili, seven in KiKongo, sixteen in KiBangi and the related dialect KiYansi (the latter allegedly the most important sources of Lingala’s words), and twelve to more than one language. (A few words whose ultimate source is Arabic or Portuguese are considered Bantu, because they came into these languages apparently long before the late nineteenth century.) The remaining forty-two words are found in one of the Bantu lingua francas but have not yet been sought in ethnic languages.

Because of this evidence one concludes that my argument is not invalidated for the following two reasons. (1) Those who spoke Bantu languages that had consonants similar to those in Ngbandi would not have simplified them, but they would at the same time have been using words already current in the emerging Bantu lingua francas. In any case, this Bantu linguistic evidence suggests the important role speakers of this mish-mash of a Bantu-based langage had in the creation of Sango. (2) At least some of these Bantu words could have been picked up and introduced by Ngbandis after having worked with others who were using the emerging Bantu lingua francas. They would have had this opportunity not only on the Ubangi River but elsewhere in EIC territory, for it was said in 1894, “des Ouëllés [among others] sont chauffeurs, mécaniciens, ajusteurs, sur les bateaux, aux chantiers de l’Etat, aux ateliers du chemin de fer” (R.P. Constant De Deken, Missions en Chine et au Congo [Missions de Scheut] 1896:212).

5. Appropriation with pidginization

Although convergence of consonantal structures contributed to the retention of Ngbandi’s phonologically complex ones, we must consider the way the Ngbandis may have immediately appropriated the new way of speaking their own language and placed their stamp of approval on it. That, of course, can only be conjectured, for we have no historical evidence that they did so. It is true, nonetheless, that they and other Central Africans have considered Sango to be their (the Ngbandis’) language. Never, to my knowledge, has any Central African considered Sango a foreign way of talking a Central African language and never considered a pidgin or some form of broken language.

Nonetheless, I would like to argue that evidence for this appropriation is in the fact that Sango was created in about ten years and stabilized in twenty, if not less. Ngbandis caught on to what foreigners were doing, adopted the new version of their language, and then spread it as their role in colonization was institutionalized in their becoming significant members of France’s militia as they had been for the Congo Free State. In 1952, when I learned Sango, it was still known as Sango ti

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15 This fact was dramatically demonstrated when I presented a copy of my grammar in 1963 to the ambassador of the Central African Republic to the United Nations, himself a member of this ethnic group.
16 A rapid origin for Sranan has also been asserted. See Voorhove, 1964, 1971, 1973.
turugu ‘soldier’s Sango.’\textsuperscript{17}

If this argument is valid for Sango, it should be valid for Chinook Jargon. In fact, I would like to amend what I have written about the origin of this pidgin by citing Sango (Samarin 1986c, 1988). Whereas others have declared that Chinook Jargon’s very complex consonantal system can only be explained by the Chinooks’ having simplified the grammar and lexicon of their language before the arrival of Europeans (e.g., Thomason, 2003), I propose that they appropriated something already in existence—the Nootka jargon—and made it very quickly their own.

6. Contact and creation

This dissertation should be considered an explanation of the origin of Sango with linguistic data supported by historical argumentation. Embedded in the latter is an implication of the nature of the contact that led to its creation. First, Sango was never a trade language. Instead, Sango was a work language, as I have described all of the central African lingua francas (Samarin 1989). Second, Sango arose out of normal human interaction between persons who were mutually dependent on each. Although some of the foreign blacks some of the time could exercise power and authority over the Ngbandis, most of them most of the time were just getting their jobs done while extracting pleasure from their experiences as much as they could. About these kinds of relations we almost never learn anything. The following documents are therefore important:

Those who had served as canoers came again and again to our camp to socialize with our workers, to help them build temporary huts, and to bring them supplies of water.\textsuperscript{18}

[The Ngbandis] made themselves appreciated by everybody, even the Senegalese, who, when they become familiar with them, are willing to serve under their orders, because they understand that these are not ‘savages’.\textsuperscript{19}

This is a characterization of the context of Sango’s origin. Very soon after, life became worse for Central Africans, and when Sango was spread over the region, Ngbandis became in many circumstances the instrument for the exercise of power and authority over the bush people, a fact that affects the politics and life of the Central African Republic today.

\textsuperscript{17} Turugu is derived from turku, that is, Turk.
\textsuperscript{18} “Ceux qui m’avaient servi de pagayeurs venaient sans cesse à notre campement s’entretenir avec nos tirailleurs, les aider à construire de petites huttes provisoires et leur porter des provisions d’eau” (Dybowski 1894:220).
\textsuperscript{19} “[Les Ngbandis] se sont fait apprécier de tous, même des Sénégalais, qui, lorsqu’ils les connaissent, accept[ent] de servir sous leurs ordres, car ils comprennent que ce ne sont pas des ‘sauvages’” (Bruel 1918:307).
ANNEXES.

Table 1. The consonants of Ngbandi and early Sango

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The restrictive use of “early” in the heading is necessary, because, as the result of contact with Ubangian languages and perhaps of internal change in recent years, the Sango of Bangui has a greater inventory of varying sounds, some noted in Samarin, 1997. Of early Sango we have to rely mostly on missionary publications. —On Ngbandi see Boyd 1988, Boyeldieu 1975, 1982. —Notes: (1) Both kw and gw occur as sequences of consonants. No one but Lekens has considered them as unit phonemes. (2) The glottal stop and h in Ngbandi vary inter- and intra-dialectally, in the latter apparently in free or inter-subjective variation (Boyeldieu 1982:33). (3) The palatal nasal some might analyze as a sequence of either ni or ny before a vowel, and in the speech of some speakers is realized as a fully nasalized sequence of jV.

Table 2. Consonants of some Kru languages (Hartell, 1993; Marchese, 1986)

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<td>r</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>w</td>
<td></td>
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</tr>
</tbody>
</table>
The sample of six languages and their classification are the following:
- **Eastern**: Bété, Dida, Godie;
- **Western**: Grebo, Nyabwa, Tepo, Wobé.

Godie may also have palatalized tj and dj; Bété and Dida (and possibly Godie) have voiced bilabial and velar fricatives; Dida, Godie, and Nyabwa have an implosive bilabial stop.

Some researchers consider the sequence Cw as a unit, others as sequences of C + w (Marchese 1986:13).

### Table 3. Consonants of some Mande languages (Hartell 1993)

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>t</th>
<th>tj</th>
<th>k</th>
<th>kp</th>
<th>kw</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td></td>
<td>d</td>
<td>dz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f</td>
<td>s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>h</td>
<td></td>
</tr>
<tr>
<td>v</td>
<td>z</td>
<td></td>
<td>y</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mb</td>
<td>nd</td>
<td>ndz</td>
<td>ng</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l/r</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>w</td>
<td></td>
<td>j</td>
<td></td>
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</tr>
</tbody>
</table>

The sample of nine languages from the Mande family used here are classified according to Dwyer (1989) as Mande: Busa, Bisa; Manding; Dyula; Southeastern: Ben/Gan?/Ngain?, Dan; Southwestern: Bandi, Mende; Northwestern: Soso/Susu, Ligbi. Only Bisa and Ben have tj and dz. kw and gw are found only in Dan; the only languages with prenasalized stops and a voiced velar fricative in this sample are Busa and Bandi, the latter being the only Mande language in Liberia, but the series does occur in other Mande languages; in Dan l seems to alternate with r; only Ben has both b and d, although Susu and Bandi also have only b; only Mende seems to lack z; several languages have nj; only Busa has ?.
### Table 4. West Atlantic consonants (Sereer) (Hartell 1993)

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>t</th>
<th>t'</th>
<th>k</th>
<th>q</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>p'</td>
<td>p'</td>
<td>p'</td>
<td>t'</td>
<td>t'</td>
<td>t'</td>
<td>t'</td>
</tr>
<tr>
<td>b</td>
<td>d</td>
<td>dz</td>
<td></td>
<td>g</td>
<td></td>
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<tr>
<td>g</td>
<td>d</td>
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</tr>
<tr>
<td>m</td>
<td>n</td>
<td>jn</td>
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<td></td>
</tr>
<tr>
<td>mb</td>
<td>nd</td>
<td>ndz</td>
<td>ng</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>s</td>
<td>x</td>
<td></td>
<td></td>
<td>h</td>
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<td>v</td>
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<td>l</td>
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<td>j</td>
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<tr>
<td>j</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>?j</td>
</tr>
</tbody>
</table>

The series \( p', t', t'f' \) are presumably glottalized. The absence of \( z \) is curious, possibly just an editorial error.

### Table 5. The consonants of Likátá, a Bantu language (Motingea, 1984)

<table>
<thead>
<tr>
<th></th>
<th>p</th>
<th>t</th>
<th>k</th>
<th>kp</th>
<th>mp</th>
<th>nt</th>
<th>m</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>d</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>mb</td>
<td>nd</td>
<td>ndz</td>
<td>ng</td>
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<td></td>
<td></td>
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<tr>
<td>m</td>
<td>n</td>
<td>jn</td>
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<td>h</td>
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<td>l</td>
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<td>z</td>
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<tr>
<td>w</td>
<td>j</td>
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</tr>
</tbody>
</table>

The unit \( p \) is realized everywhere as a voiceless bilabial fricative \( \phi \) but as \( p \) following a nasal as in \( mp \). —The sequences \( mw \) and \( pw \) are not listed in Motingea’s chart but occur in lexical citations; perhaps there are other \( Cw \) clusters. The nasals preceding stops are presumably homorganic with the
following stop, as represented here. Motingea, however, does not treat the prenasalized stops as units but as Nasal + Stop.

References


Mackenzie, (Captain) T. C. 1908. A vocabulary of the Bangala language as spoken in the Lado District, Mongalla Province. Cairo: The Intelligence Department, Sudan Government.


