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Origin of the Niger-Congo Speakers

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Abstract

The Niger-Congo (NC) Superfamily of languages is the largest family of languages spoken in Africa. Researchers have assumed that the NC speakers originated in West Africa in the Inland Niger Delta. The research indicates that the NC speakers originated in the Saharan Highlands 12kya and belonged to the Ounanian culture. The NC population cultivated millet from Saharan Africa to South India. Phylogenetically the NC mtDNA haplogroups include L1,L2,L3, U5, L3(M,N). The y-Chromosome haplotypes associated with the NC population were A,B, E1b1a, E1b1b, E2, E3a and R1. A major finding was that the Atlantic, Mande and Dravidian languages of India, form a new NC Subfamily we can designate Indo-African.

Introduction

Controversy surrounds the origin of the Niger-Congo speakers. Although most researchers believe the Niger-Congo speakers originated in West Africa, their origin may have been in the Saharan highlands.

The traditional view of the dispersal of the Niger-Congo speakers would place their original home in the woodland savanna zone of West Africa, in the area of the Niger Basin. This is a most attractive theory but it does not conform to the archaeological data collected over the past decade. This material illustrates that until the second millennium BC the Inland Niger Delta was sparsely populated.

The Niger-Congo (NC) Superfamily of languages is the most widespread family of languages spoken in Africa. The branches of the NC languages includes Atlantic, Dogon, Kordofanian, Mande, Gur, Kwa, Kru, Benue-Congo, Adamawa and Bantu. In this paper we will explain the origin of the Niger-Congo speakers.

Methods

In this paper we review the archaeological and linguistic data relating to origination and expansion of the Niger-Congo speakers/populations. In addition to this material we looked at previously published y-Chromosome haplogroups and mtDNA gene variants in African and Indian populations.

Results

The Niger-Congo Speakers probably played an important role in the peopling of the Sahara. Drake et al make it clear there was considerable human activity in the Sahara before it became a desert[1]. Drake et al [1] provides evidence that the original settlers of this wet Sahara, who used aquatic tool kits, were Nilo-Saharan (NS) speakers. The authors also recognized another Saharan culture that played a role in the peopling of the desert. This population hunted animals with the bow-and –arrow; they are associated with the Ounanian culture. The Ounanian culture existed 12kya [2].

The Ounanians were members of the Capsian population.There was continuity between the populations in the Maghreb and southern Sahara referred to as Capsians, Iberomaurusians, and Mechtoids [3]. The Niger-Congo speakers are decendants of the Capsian population.

Capsian people did not only live in Afrca, they were also present in South Asia. Using craniometric data researchers have made it clear that the Dravidian speakers of South India and the Indus valley were primarily related to the ancient Capsian or Mediterranean population [4-9].

Lahovary [7] and Sastri [8] maintains that the Capsian population was unified over an extensive zone from Africa, across Eurasia into South India. Some researchers maintain that the Capsian civilization originated in East Africa [7].

The Ounanian culture is associated with sites in central Egypt, Algeria, Mali, Mauretania and Niger [10]. The Ounanian tradition is probably associated with the Niger-Congo phyla. This would explain the close relationship between the Niger-Congo and Nilo-Saharan languages.

The original homeland of the Niger-Congo speakers was probably situated in the Saharan Highlands during the Ounanian period. From here NC populations migrated into the Fezzan, Nile Valley and Sudan as their original homeland became more and more arid.

The Niger-Congo speakers formerly lived in the highland regions of the Fezzan and Hoggar until after 4000 BC. Originally hunter-gatherers the Proto-Niger-Congo people developed an agro-pastoral economy which included the cultivation of millet, and

domestication of cattle (and sheep).

This was probably the ancient homeland of the Dravidians, Egyptians, Sumerians, Niger-Kordofanian-Mande and Elamite speakers. We call this part of Africa the Fertile African Crescent [9-10,13-14]. We call these people the Proto-Saharans [9,14]. The generic term for this group is in the ancient literatures was: Kushite.

Origination of these diverse Kushite tribes in the ancient Sahara, explains the analogy between the Bafsudraalam languages as outlined in Figure 1. These Proto-Saharans were called Ta-Seti and Tehenu by the Egyptians.

The Niger-Congo inhabitants of the Fezzan were round headed Africans [13]. The cultural characteristics of the Fezzanese were analogous to the C-Group culture items and the people of Ta-Seti. The C-Group people were the Proto-Saharan or Niger-Congo speakers who occupied the Sudan and Fezzan regions between 3700-1300 BC [13].

The inhabitants of the Fezzan were called Tmhw (Temehus). The Temehus represent the Proto-Niger-Congo speakers.

The Temehus were organized into two groups the Thnw (Tehenu) in the North and the Nhsj (Nehesy) in the South [14]. A Tehenu personage is depicted on an Amratian period pottery vessel. Some Tehenu wore a pointed beard, phallic-sheath and feathers on their head

The Temehus are called the C-Group people by archaeologists [13,15]. The central Fezzan was a center of C-Group settlement. Quellec [15] discussed in detail the presence of C-Group culture traits in the Central Fezzan along with their cattle during the middle of the Third millennium BC.

The Temehus or C-Group people began to settle Kush around 2200 BC. The kings of Kush had their capital at Kerma, in Dongola and a sedentary center on Sai Island. The same pottery found at Kerma is also present in Libya (and even India) especially in the Fezzan, which was one of the ancient homelands of the Niger-Congo speaking people. The C-Group founded the Kerma dynasty of Kush. Diop [14] noted that the "earliest substratum of the Libyan population was a black population from the south Sahara".

Kerma was first inhabited in the 4th millennium BC [16]. By the 2nd millennium BC Kushites at Kerma were already worshippers of Amon/Amun and they used a distinctive black-and-red ware [16]. Amon, later became a major god of the Egyptians during the 18th Dynasty.

Niger-Congo speakers in Eurasia

Using boats the Kushites moved down ancient waterways many now dried up, to establish new towns in Asia and Europe after 3500 BC. The Kushites remained supreme around the world until 1400-1200 BC. During this period the Hua (Chinese) and Indo-European (I-E) speakers began to conquer the Kushites whose cities and economies were destroyed as a result of natural catastrophes which took place on the planet between 1400-1200 BC. Later, after 500 AD, Turkish speaking people began to settle parts of Central Asia. This is the reason behind the presence of the K-s-h element in many place names in Asia e.g., Kashgar, HinduKush, and Kosh. The HinduKush in Harappan times had lapis lazuli deposits.

Kushites expanded into Inner Asia from two primary points of dispersal: Iran and Anatolia. In Anatolia the Kushites were called Hattians and Kaska. In the 2nd millennium BC, the north and east of Anatolia was inhabited by non-I-E speakers.

Anatolia was divided into two lands “the land of Kanis” and the “land of Hatti”. The Hatti were related to the Kaska people who lived in the Pontic mountains.

Hatti

Some of the Tehenu or Kushites settled Anatolia. The major Anatolian Kushite tribes were the Kaska and Hatti speakers who spoke non-IE languages called Khattili. The gods of the Hattic people were Kasku and Kusuh (< Kush).

The Hattic people, may be related to the Hatiu, one of the Delta Tehenu tribes. Many archaeologist believe that the Tehenu people were related to the C-Group people. The Hattic language is closely related to African and Dravidian languages as illustrated in Figure 2.

Hattians lived in Anatolia. They worshipped Kasku and Kusuh. They were especially prominent in the Pontic mountains. Their sister nation in the Halys Basin were the Kaska tribes. The Kaska and Hattians share the same names for gods, along with personal and place-names. The Kaska had a strong empire which was never defeated by the Hittites.

Singer [17] has suggested that the Kaska, are remnants of the indigenous Hattian population which was forced northward by the Hittites. But at least as late as 1800 BC, Anatolia was basically settled by Hattians.

Anatolia was occupied by many Kushite groups,including the Kashkas and or Hatti. The Hatti, like the Dravidian speaking people were probably related .

The languages have similar syntax Hattic le fil 'his house'; Mande a falu 'his father's house'. This suggest that the first Anatolians were Kushites, a view supported by the Hattic name for themselves: Kashka.

Hurrians

Another important group in Anatolia in addition to the

Hatti, were the Hurrians. The Hurrians enter Mesopotamia from the northeastern hilly area. They introduced horse-drawn war chariots to Mesopotamia.

Hurrians penetrate Mesopotamia and Syria-Palestine between 1700-1500 BC. The major Hurrian Kingdom was Mitanni , which was founded by Sudarna I (c.1550), was established at Washukanni on the Khabur River. The Hurrian capital was Urkesh, one of its earliest kings was called Tupkish.

Linguistic and historical evidence support the view that Dravidians influenced Mittanni and Lycia [17,19]. Alain Anselin is sure that Dravidian speaking peoples once inhabited the Aegean. For example Anselin [11] has discussed many Dravidian place names found in the Aegean Sea area.

Two major groups in ancient Anatolia were the Hurrians and Lycians. Although the Hurrians are considered to be Indo-European speakers, some Hurrians probably spoke a Dravidian language.

The Hurrians lived in Mittanni. Mittanni was situated on the great bend of the Upper Euphrates river. Hurrian was spoken in eastern Anatolia and North Syria.

Most of what we know about the Hurrian language comes from the Tel al-Armarna letters. These letters were written to the Egyptian pharaoh. The Armarna letters are important because they were written in a language different from diplomatic Babylonian.

The letters written in the formerly unknown language were numbers 22 and 25. In 1909 Bork, in Mitteilungen der Vorderasiatische Gesellschaft, wrote a translation of the letters.

In 1930, G.W. Brown proposed that the words in letters 22 and 25 were Dravidian especially Tamil. Brown [18], has shown that the vowels and consonants of Hurrian and Dravidian are analogous. In support of this theory Brown [18] noted the following similarities between Dravidian and Hurrian: 1) presence of a fullness of forms employed by both languages; 2) presence of active and passive verbal forms are not distinguished; 3) presence of verbal forms that are formed by particles; 4) presence of true relative pronouns is not found in these languages; 5) both languages employ negative verbal forms; 6) identical use of -m, as nominative; 7) similar pronouns; and 8) similar ending formations:

Dravidian Hurrian

a a
-kku -ikka
imbu impu

There are analogous Dravidian and Hurrian terms as illustrated in Table 4.

Many researchers have noted the presence of many Indo-Aryan words. In Hurrians. This has led some researchers to conclude that Indo –Europeans may have ruled the Hurrians. This results from the fact that the names of the Hurrian gods are similar to the Aryan gods:

* Hurrian Sanskrit
Mi-it-va Mitra
Aru-na Varuna
In-da-ra Indra
Na-sa-at-tiya Nasatya

There are other Hurrian and Sanskrit terms that appear to show a relationship:

* English Hurrian Sanskrit Tamil
One aika eka okka ‘together’
Three tera tri
Five panza panca añcu
Seven satta sapta
Nine na nava onpatu
Other Hurrian terms relate to Indo-Aryan:
English Hurrian I-A Tamil
Brown babru babhru pukar
Grey parita palita paraitu ‘old’
Reddish pinkara pingala puuval
* English Mitanni Vedic Tamil
Warrior marya marya makan, maravan

Mande and Niger Congo

Wm. E. Welmers identified the Niger Congo homeland in the Sudan not Niger Valley. Welmers explained that the Niger-Congo homeland was in the vicinity of the upper Nile valley [20]. He believes that the Westward migration of the Niger-Congo began 5000 years ago[20]. In support of Welmers’ theory he discusses the dogs of the Niger-Congo speakers[10].

This is the unique bark less Basenji dogs which live in the Sudan and Uganda today, but were formerly recorded on Egyptian monuments [20]. According to Welmers the Basenji, is related to the Liberian Basenji breed of the Kpelle and Loma people of Liberia. Welmers believes that the Mande took these dogs with them on their migration westward. The Kpelle and Loma speak Mande languages.

The Niger Valley was uninhabitable until recently. There were few habitable sites in West Africa during the Holocene wet phase. McIntosh and McIntosh have illustrated that the only human occupation of the Sahara during this period were the Saharan massifs along wadis[21].

The Niger-Congo speakers probably began to exit the Saharan Highlands during the Ounanian period. By the 8th millennium BC Saharan-Sudanese pottery was used in the Air [22]. Ceramics of this style have also been found at sites in the Hoggar [22-23]. Dotted wavy-line pottery has also been discovered in the

Libyan Sahara [22].

In the Sahelian zone there was a short wet phase during the Holocene (c. 7500-4400 BC), which led to the formation of large lakes and marshes in Mauritania, the Niger massifs and Chad. The Inland Niger Delta was unoccupied. In other parts of the Niger area the wet phase existed in the eight/seventh and fourth/third millennia BC [23].

Welmers [20] has suggested that the first group to separate from the Niger-Congo family was the Mande speakers. Although he believes that this dispersal began only 5000 years ago the expansion of the Saharan-Sudanese style into the areas traditionally associated with the Ounanian tradition suggests that some of the Proto-Mande probably separated from Niger-Congo 10kya.

Controversy surrounds the classification of the Mande language family. Greenberg popularized the idea that the Mande subset was a member of the Niger-Congo Superset of Africa languages, while B. Heine and D. Nurse, African Languages: An Introduction believes that the Niger-Congo (Mande) is especially closely united with Central Sudani and Kabu within Nilo-Saharan. The position of Mande in the Niger-Congo Superset has long been precarious and today it is given a peripheral status to the Niger-Congo Superset . Murkarovsky [24] believes that the Mande group of languages does not belong in the Niger-Congo Superset, while Welmers has advanced the idea that Mande was the first group to break away from Niger-Congo[20]. The Mande languages are also closely related to Songhay [24-25], Nilo-Saharan and the Chadic group [26]. Zima compared 25 Songhay and Mandekan terms from the cultural vocabulary to highlight the correspondence between these two language groups[25]. Zima made it clear that "the lexical affinities between the Songhay and Mande languages are evident"[25].Mukarovsky has presented hundreds of analogous Mande and Cushitic terms[27].

Due to the similarities between the Mande and Cushitic language families Mukarovsky would place Mande into the Afro-Asiatic Superset of languages[27]. Mukarovsky has presented hundreds of analogous Mande and Cushitic terms[27]. This linguistic evidence makes it clear that the Niger-Congo, Nilo-Saharan and Cushitic speakers originally lived intimate contact. The Mande were spread across the Sahaelian /Saharan zone in areas associated with the Ounanian tradition. They built many civilizations from the Fezzan to Mauretania [28]. The Northern Mande speakers are divided into the Soninke and Malinke-Bambara groups. Holl believes that the founders of the Dhar Tichit 4kya, were northern Mande speakers[28]. The pottery at Dhar Tichitt is associated with Saharan styles[28].

Dravidian and Niger-Congo

In the sub-continent of India, there were several main groups. The traditional view for the population origins in India suggest that the earliest inhabitants of India were the Negritos, and this was followed by the Proto-Australoid,the Mongoloid and the so-called mediterranean type which represent the ancient Egyptians and Kushites [9]. The the Proto-Dravidians were probably one of the cattle herding groups that made up the C-Group culture of Nubia Kush[33].

The linguistic, anthropological and linguistic data make it clear that Dravidians came to India from Africa during the Neolithic and not the Holocene period.

The Dravidian and Mande speakers began to migrate out of Africa by 3000BC. They were part of the C-Group. They first settled in Iran and from here expanded into Central Asia and the Indus Valley.

According to Sergent [35], the Dravidian populations are not autochthonous to India , they are of African origin. The archaeological evidence also appears to support an African origin for the Dravidian speaking people [7,50-51].

Researchers have conclusively proven that the Dravidians are related to the Niger-Congo speaking group and they originally lived in Nubia [7]. The Dravidians and C-Group people of Nubia used 1) a common BRW [7]; 2) a common burial complex incorporating megaliths and circular rock enclosures [7] and 3) a common type of rock cut sepulcher [7] and writing system [50-51].

The BRW industry diffused from Nubia, across West Asia into Rajastan, and thence to East Central and South India [30]. Singh [30] made it clear that he believes that the BRW radiated from Nubia through Mesopotamia and Iran southward into India.

BRW is found at the lowest levels of Harappa and Lothal dating to 2400BC. T.B. Nayar [31] proved that the BRW of Harappa has affinities to predynastic Egyptian and West Asian pottery dating to the same time period.

After 1700 BC, with the end of the Harappan civilization spread BRW southward into the Chalcolithic culture of Malwa and Central India down to Northern Deccan and eastward into the Gangetic Basin.

The BRW of the Malwa culture occupied the Tapi Valley Pravara Godavari and the Bhima Valleys. In addition we find that the pottery used by the at Gilund [32], Rajasthan on the banks of the Bana River, was also BRW.

Archaeologists agree that Black and red ware (BRW) was unearthed on many South India sites are related to Dravidian speaking people. The BRW style has been found on the lower levels of Madurai and

Tirukkampuliyur.

B.B. Lal [7] an Indian Egyptologist has shown conclusively that the Dravidians originated in the Saharan area 5000 years ago. He claims they came from Kush, in the Fertile African Crescent and were related to the C-Group people who founded the Kerma dynasty in the 3rd millennium B.C [50-51]. The Dravidians used a common black-and-red pottery, which spread from Nubia, through modern Ethiopia, Arabia, Iran into India as a result of the Proto-Saharan dispersal.

B.B. Lal [7] a leading Indian archaeologist in India has observed that the black and red ware (BRW) dating to the Kerma dynasty of Nubia, is related to the Dravidian megalithic pottery. Singh [30] believes that this pottery radiated from Nubia to India. This pottery along with wavy-line pottery is associated with the Saharo-Sudanese pottery tradition of ancient Africa .

The Dravidians live in South India. The Dravidian ethnic group includes the Tamil, Kurukh,Malayalam, Kananda (Kanarese), Tulu, Telugu and etc. There is physical evidence which suggest an African origin for the Dravidians[32-34]. Some researchers due to the genetic relationship between the Dravidians and Niger-Congo speaking groups they call these Indians the Sudroid (Indo-African) race.

Aravaanan [32-34] has written extensively on African and Dravidian relations. He has illustrated that the Africans and Dravidian share many physical similarities including the dolichocephalic indexes, platyrrhine nasal index, stature (31-32) and blood type . Aravaanan [32] also presented much evidence for analogous African and Dravidian cultural features including the chipping of incisor teeth and the use of the lost wax process to make bronze works of arts [32]. There are also similarities between the Dravidian and African religions. For example, both groups held a common interest in the cult of the Serpent and believed in a Supreme God, who lived in a place of peace and tranquility.

There is affinities between the names of many gods including Amun/Amma and Murugan. Murugan the Dravidian god of the mountains parallels a common god in East Africa worshipped by 25 ethnic groups is called Murungu, the god who resides in the mountains [34].

Up until the South Indian megalithic period the Dravidians continued to use black-and-red ware and Libyco-Berber/Indus Valley writing [9,18]. Under the influence of the Ethiopians the script changed into the Nagari writing system. The architecture of the Dravidians is an ornamented pyramid with statues and other featured added within the construction of the pyramid.

Dravidian languages are predominately spoken in southern India and Sri Lanka. There are around 125 million Dravidian speakers. These languages are genetically related to African languages. The Dravidians are remnants of the ancient Black population who occupied most of ancient Asia and Europe.

Linguistic Evidence

1.1 Many scholars have recognized the linguistic unity of Black African (BA) and Dravidian (Dr.) languages. These affinities are found not only in the modern African languages but also that of ancient Egypt. These scholars have made it clear that lexical, morphological and phonetic unity exist between African languages in West and North Africa as well as the Bantu group.

1.2 K.P. Arvaanan [33] has noted that there are ten common elements shared by NC languages and the Dr. group. They are (1) simple set of five basic vowels with short-long consonants;(2) vowel harmony; (3) absence of initial clusters of consonants; (4) abundance of geminated consonants; (5) distinction of inclusive and exclusive pronouns in first person plural; (6) absence of degrees of comparison for adjectives and adverbs as distinct morphological categories; (7) consonant alternation on nominal increments noticed by different classes; (8)distinction of completed action among verbal paradigms as against specific tense distinction;(9) two separate sets of paradigms for declarative and negative forms of verbs; and (l0) use of reduplication for emphasis. 1.3 There has been a long development in the recognition of the linguistic unity of African and Dravidian languages. The first scholar to document this fact was the French linguist L. Homburger. Prof. Homburger who is best known for her research into African languages was convinced that the Dravidian languages explained the morphology of the Senegalese group particularly the Serere, Fulani group. She was also convinced that the kinship existed between Kannanda and the Bantu languages, and Telugu and the Mande group. Dr. L. Homburger is credited with the discovery for the first time of phonetic, morphological and lexical parallels between Bantu and Dravidians

1.4 By the 1970's numerous scholars had moved their investigation into links between Dr. and BA languages on into the Senegambia region. Such scholars as Cheikh T. N'Diaye [36] a Senegalese linguist, and U.P. Upadhyaya [37-38] of India, have proved conclusively Dr. Homburger's theory of unity between the Dravidian and the Senegalese languages.

1.5 C.T. N'Diaye [36], who studied Tamil in India, has identified nearly 500 cognates of Dravidian and the Senegalese languages. Upadhyaya [37-38] after field

work in Senegal discovered around 509 Dravidian and Senegambian words that show full or slight correspondence.

1.6 As a result of the linguistic evidence the Congolese linguist Th. Obenga suggested that there was an Indo-African group of related languages. To prove this point we will discuss the numerous examples of phonetic, morphological and lexical parallels between the Dravidian group: Tamil (Ta.), Malayalam (Mal.), Kannanda/Kanarese (Ka.), Tulu (Tu.), Kui-Gondi, Telugu (Tel.) and Brahui; and Black African languages: Manding (Man.),Egyptian (E.), and Senegalese (Sn.)

1.7 Cheikh T. N'Diaye [36] and U.P. Upadhyaya [38] have firmly established the linguistic unity of the Dravidian and Senegalese languages. They present grammatical, morphological, phonetic and lexical parallels to prove their point.

1.8 In the Dravidian and Atlantic languages there is a tendency for the appearance of open syllables and the avoidance of non-identical consonant clusters. Accent is usually found on the initial syllable of a word in both these groups. Upadhyaya [38] has recognized that there are many medial geminated consonants in Dravidian and Senegalese, see Table 4. Due to their preference for open syllables final consonants are rare in these languages.

1.9 There are numerous parallel participle and abstract noun suffixes in Dravidian and Senegalese. For example, the past participle in Fulani (F) -o, and oowo the agent formative, corresponds to Dravidian -a, -aya, e.g., F. windudo 'written', windoowo 'writer'.

1.10 The Wolof (W) -aay and Dyolo ay, abstract noun formative corresponds to Dravidian ay, W. baax 'good', baaxaay 'goodness'; Dr. apala 'friend', bapalay 'friendship'; Dr. hiri 'big', hirime 'greatness', and nal 'good', nanmay 'goodness'.

1.11 There is also analogy in the Wolof abstract noun formative suffix -it, -itt, and Dravidian ita, ta, e.g., W. dog 'to cut', dogit 'sharpness'; Dr. hari 'to cut', hanita 'sharp-ness'.

1.12 The Dravidian and Senegalese languages use reduplication of the bases to emphasize or modify the sense of the word, e.g., D. fan 'more', fanfan 'very much'; Dr. beega 'quick', beega 'very quick'.

There are numerous Dravidian and Atlantic cognate terms. Some of these cognate terms are listed in Table 6.

Above we provided linguistic examples from many different African language Supersets (Families) from Niger-Congo to prove the analogy between Dravidian and Black African languages. The evidence is clear that the Dravidian and Black African languages should be classed in a family called Indo-African as suggested by Th. Obenga. This data further supports the archaeological evidence accumulated by Dr. B.B Lal [7] which proved that the Dravidians originated in the Fertile African Crescent.

Millet and the Niger-Congo Speaking Community

The major grain exploited by Niger-Congo populations was rice ,the yam and pennisetum. The principal domesticate in the southern Sahara was bulrush millet. There has been considerable debate concerning the transport of African millets to India [39]. Weber believes that African millets may have come to India by way of Arabia [39]. Wigboldus on the other hand argues that African millets may have arrived from Africa via the Indian Ocean in Harappan times [39].

Both of these theories involve the transport of African millets from a country bordering on the Indian Ocean. Yet, Weber and Wigboldus were surprised to discover that African millets and bicolor sorghum, did not reach many East African countries until millennia after they had been exploited as a major subsistence crop at Harappan and Gujarat sites [39].

This failure to correlate the archaeological evidence of African millets in countries bordering on the Indian Ocean, and the antiquity of African millets in India suggest that African millets such as Pennisetum and Sorghum must have come to India from another part of Africa. To test this hypothesis we will compare Dravidian and African terms for millet.

Winters [9, 50-51] has suggested that the Proto-Dravidians formerly lived in the Sahara. This is an interesting theory, because it is in the Sahara that the earliest archaeological pennisetum has been found. Millet impressions have been found on Mande ceramics from both Karkarchinkat in the Tilemsi Valley of Mali, and Dar Tichitt in Mauritania between 4000 and 3000 BP [23,28].

One of the principal groups to use millet in Africa are the Dogon and Mande speaking people [28, 52-54]. the Dhar Tichitt site where millet was cultivated in the 2nd millenium B.C., were northern Mande speakers. The Northern Mande speakers are divided into the Soninke and Malinke-Bambara groups.

To test this theory we will compare Dravidian and Black African agricultural terms, especially Northern Mande. The linguistic evidence suggest that the Proto-Dravidians belonged to an ancient sedentary culture which exitsed in Saharan Africa. We will call the ancestor of this group Paleo-Dravido-Africans [54-57].

The Dravidian terms for millet are listed in the Dravidian Etymological Dictionary at 2359, 4300 and 2671. A cursory review of the linguistic examples provided below from the Dravidian, Mande and Wolof languages show a close relationship between these

language. These terms as illustrated in Table 7.

It is clear that the Dravidian and African terms for millet are very similar. The Proto-Dravidian terms *baraga and *tena have little if any affinity to the African terms for millet [29].

The Kol term for millet ‘sonna’, is very similar to the terms for millet used by the Wolof ‘suna’ (a West Atlantic Language), and Mande ‘suna’ (a Mande language). The agreement of these terms for millet in sound and structure, suggest that these terms may be related.

The sound change of the initial /s/ in the African languages, to the /c/ in Tamil and Malayalam is consistent with the cognate Tamil and Malayalam terms compared by Aranavan [32-34] and Winters [14,19,50-51]. Moreover, the difference in the Kol term ‘ soona’,which does retain the complete African form indicates that the development in Tamil and Malayalam, was a natural evolutionary development in some South Dravidian languages. Moreover, you will also find a similar pattern for other Malinke and Dravidian cognates, e.g., buy: Malinke ‘sa, Tamil cel; and road: Malinke ‘sila’, Tamil ‘caalai’.

Phylogeography of the Niger-Congo Speakers

The mtDNA haplogroups L1, L2, L3 and U5 are associated with Niger-Congo speakers. Phylogenetically all the Eurasian mtDNA branches descend from L3.

The Pan-African haplotypes are 16189,16192,16223, 16278,16294, 16309, qnd 16390. This sequence is found in the L2a1 haplotype which is highly frequent among the Mande speaking group and the Wolof.

There is mtDNA data uniting Africans and Dravidians. Some researchers attempt to portray the Dravidians as Caucasoid people and try to link these people to western Eurasian populations. Other researchers in India attempt to postulate an Indian origin for Dravidians because they mainly belong to the M haplogroup (HG) [40-41].

Thangaraj et al [42] recognize a Paleolithic origin for the MHG. The majority of Dravidian speaking people belong to the M haplogroup. Most geneticists agree that the M macrohaplogroups are derived from L3. Kivisild et al [40] made it clear that all Indian mtDNA lineages "coalesce finally to the African L3a".

Metspalu [43] argues that the earliest offshoots for L3, were HGs M and N developed in Arabia. Metspalu believes the MRCA for the M HG entered Asia 60-65 kya [43].

Metspalu [43] maintains that "all the basal trunks of M, N and R have diversified in situ" (p.24). He makes it clear that in his opinion the M HGs are different from the subhaplogroup M of East Asia [43]. The most frequent HG in India is M2[44].

Sixty percent of of the Indian mtDNA lineages are M HGs [42]. Kivisild et al [40] maintains that there are five M HGs in India: M1, M2,M3, M4, and M5. Thanaraj et al [42] has revised the classification of HGs M3, M18 and M31 and defined the novel HG M41. Sun et al [45] identified another 5 M HGs (M34-M40) in addition to the Indian mtDNA macrohaplogroup N.

The diversity of M HGs in India has led many researchers to suggest that the M clades have an in-situ origin [42,44].These researchers speculate that although L3 originated in Africa, the M1 HG in Ethiopia and Egypt ,may be the result of a back migration to Africa from India [42,44].

These researchers base this theory for a back migration to Africa from India, on 1) HG M1 is not found in India; and 2) the MHG's are only found in East Africa [42,44]. Both of these theories have little support when we look at the mtDNA data for Africa and India.

Barnabas et al [45] noted that N,M and F lineages found in India could have originated in Africa (pp.13-14). He speculated these people migrated to India from Africa during the Upper Paleolithic.

Most researchers make it appear that the M1 haplogroup is only found in Ethiopia [42,44,45]. These researchers maintain that the M1 HG is restricted to the Afro-Asiatic linguistic phylum. This is false M HGs are found in other parts of Africa where people speak non-Afro-Asiatic languages.

The M lineages are not found only in East Africa. Rosa et al [46] found a low frequency of the M1 HG among West Africans who speak the Niger Congo languages, such as the Balanta-Djola. Gonzalez et al [47] found N, M and M1 HGs among Niger-Congo speakers living in Cameroon, Senegambia and Guinea Bissau.

It is also not true that HG M1 is absent in India. Kivisild et al [41] found five M HGs in India: M1, M2, M3, M4 and M5. It is interesting to note that the M4 HG has the same 16311 coding region as the African M1 HG.

Kivisild et al [41] provides the first detailed discussion of the M subclusters in India and suggested an autochthonous development of these lineages in India. The researchers suggest that there were multiple M lineages when this haplogroup migrated to Asia [41]. These researchers claimed that the expansion date for the five M subclusters expanded into India between 17,000-32,000 bp.

Kivisild et al [41] noted that 26 of the subjects in his study belonged to the M1 haplogroup. It is clear from this study that sub-cluster M1 was found mainly in the Indian states of Kerala and Karnataka [41]. An interesting finding in the study was that most of the Indians with the M1 HG were members of upper caste.

Africans and Dravidians share haplogroups M1, M3, M30 and M33.

The phylogeography of y-Chromosome haplotypes shared among the Niger-Congo speakers include A,B, Elb1a, E1b1b, E2, E3a and R1 [57] (See: Figures 1-2). The predominate y-Chromosome among the Niger-Congo is M2, M35, and M33.

Haplogroup E has three branches carried by Niger-Congo populations E1, E2 and E3. The E1 and E2 clines are found exclusively in Africa. Haplogroup E3 is also found in Eurasia. Haplogroup E3 subclades are E3b, E-M78, E-M81 and E-M34.

The majority of Niger-Congo speakers belong to E1b1a, Elb1b, E2 and R1. Around 90% belong to y-Chromosome group E (215,M35*).

Y-Chromosome haplogroup A is represented among Niger-Congo speakers. In West Africa, under 5% of the NC speakers belong to group A. Most Niger-Congo speakers who belong to group A are found in East Africa and belong to A3b2-M13: Kenya (13.8) and Tanzanian (7.0%).

The Bantu expansion is usually associated with the spread of y-Chromosome E3a-M2. In Kenya the frequentcy for E3a-M2 is 52%; and 42% in Tanzania. In Burkina Faso high frequentcies of E-M2* and E-M191* are also represented. It is interesting to note that among the Mande speaking Bisa and Mandekan there are high frequentcies of E-M2*. This is in sharp contrast to the Marka and South Samo who have high frequencies of E-M33.

The pristine form of R1-M173 is found in Africa. Y-Chromosome R is characterized by M207/ V45. The V45 mutation is found among NC speakers. The R1b mutations include V7, V8, V45, V69 and V88.

The frequentcy of R1-M173 varies among Niger-Congo speakers. The frequentcy of R-M173 range between 3-54%. The most frequent subtype in Africa is V88 (R1b1a). Haplogroup R1b1a ranges between 2-20% among the Bantu speakers.The highest frequentcy of R1 is found among Fulbe or Fulani speakers.

We looked at previously published y-Chromosome haplotype gene variants in Indian populations. The H1 haplotype is found among many Dravidians. Sengupta et al [48] noted that the subclades H1 and H2 was found among 26% of the Dravidian speakers in their study, especially in Tamil Nadu [51]. Ramana et al claims that the discovery of H1 and H2 haplotypes among the Siddis is a "signature" of their African ancestry [53]. The frequency of the H1 subclade among Dravidian speakers is also an indicator of an African-Dravidian connection [50-53].

In addition to haplotypes H1, in South India we also find the Sickle Cell gene [52] and African 9-bp deletion [53]. Watkins et al found the 9bp motif among four Indian tribal populations: Irula, Yanadi, Siddi and Maria Gond [53].

The phylogenetic structure of the Dawoodi Bohra Muslims of Tamil Nadu, India includes African mtDNA and Y-chromosome genes. The Dawodi Bohra carry the mtDNA M1 and Loa2a. The African Y-chromosomes found among the Dawoodi Bohra was 20% haplotype H and 2% E1b1b1a.

Discussion

The dispersal of the Mande speakers from the Fezzan to Mauretania mirrors the Saharan sites associated with the Ounanian tradition [12] and later sites such as Dhar Tihitt which was settled by Mande speakers. Given the close relationship between the Mande and Nilo-Saharan languages and early dispersal of the Mande speakers into North Africa where they founded many civilizations including Dhar Tichitt [9] suggest that the Niger-Congo group introduced the hunting tradition and use of the bow-and –arrow into Mauretania, Mali, Niger and Southern Algeria and played a prominent role in peopling the desert. It is interesting to note that the bow-and-arrow was a cultural symbol for the Kushite people

Genetic evidence supports the upper Nile origin for the Niger-Congo speakers. Rosa et al, in a paper discussing the y-Chromosomal diversity in the population of Guinea-Bissau, noted that while most Mande & Balanta carry the E3a-M2 gene, there are a number of Felupe-Djola, Papel, Fulbe and Mande carry the M3b*-M35 gene the same as many non-Niger-Congo speaking people in the Sudan.

The Dravidian languages are closely related to the NC Superfamily of languages, especially the Atlantic and Mande branches. The Atlantic NC languages are spoken from the Senegal River to the Atlantic coastline and the Mande languages are spoken across much of West Africa. Given this reality we propose a new Niger-Congo branch we should designate: Indo-Niger-Congo, which would include the Atlantic Dravidian and Mande languages.

Given the archaeological evidence for millets in the Sahara, supports the corollary theory that if the Dravidians originated in Africa, they would share analogous terms for millet with African groups that formerly lived in the Sahara. This was supported by the shared terms for millet found among Dravidian and Niger-Cong speakers.

Conclusion

In conclusion, the Ounanian tradition began around 10kya [2-3]. The population associated with this civilization was probably Niger-Congo speakers.

The Niger-Congo speakers originated in the Saharan Highlands and early migrated into the Sudan[4,9,28]. Around the time we see the development of the Ounanian culture in North Africa, we see the spread of the Saharan-Sudanese ceramic style into the Sahara [5,9, 12,28] by Niger Congo speakers.

The linguistic and anthropological data make it clear that the Dravidian speakers were part of the C-Group people who formed the backbone of the Niger-Congo speakers. It indicates that the Dravidians took their red-and-black pottery with them from Africa to India, along with the cultivation of millet.

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Illustrations

Illustration 1

Figure 1

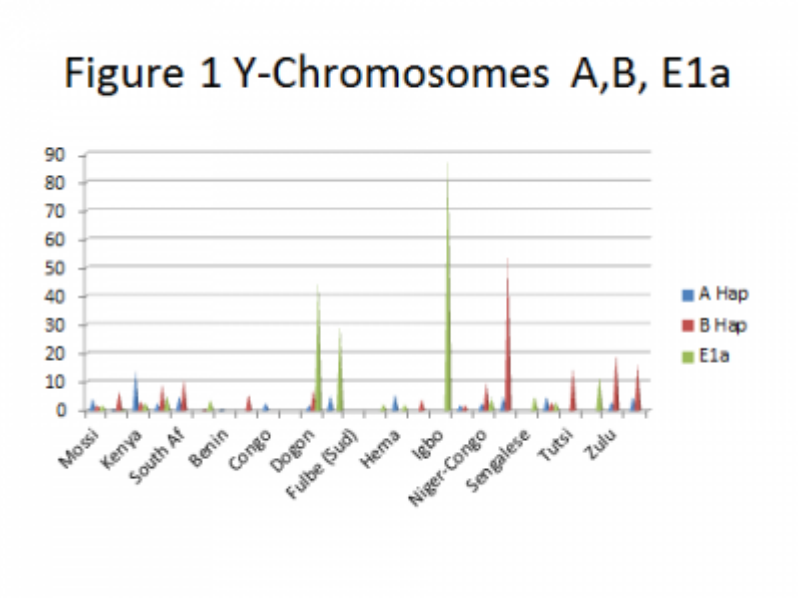

Illustration 2

Figure 2

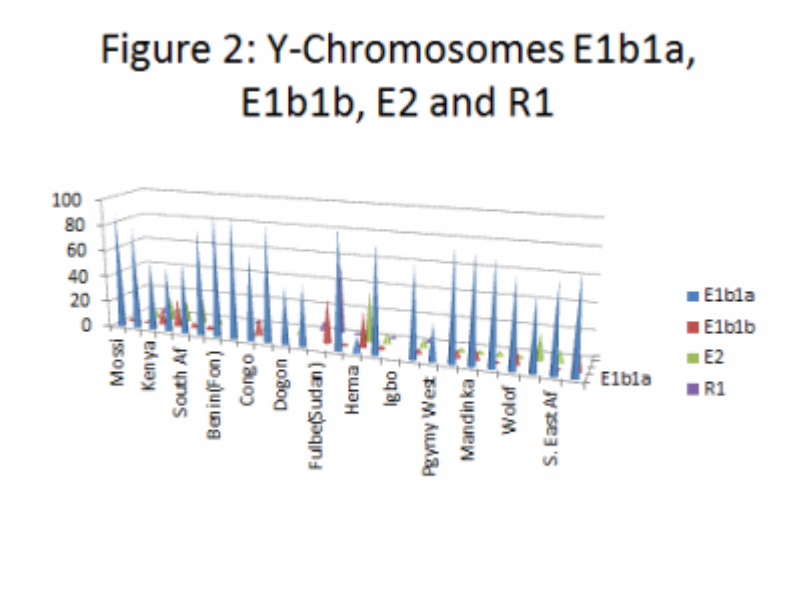

Illustration 3

Table 1

Table 1: Common Bafsudraalam Terms

Language	Chief	city,village	black/burnt
Dravidian	cira,ca	uru	kam
Elamite	salu		
Sumerian	sar	ur	
Manding	sa	furu	kam 'Charcoal'
Nubian	sirgi	amr	uru-me
Semitic	sarr		ham
Ubaid	sar	ur	
Egyptian 'blackland'	sr	mer	kemit
Hausa	sarki	birni	
Paleo-African	*Sar	*uru	*

Illustration 4

Table 2

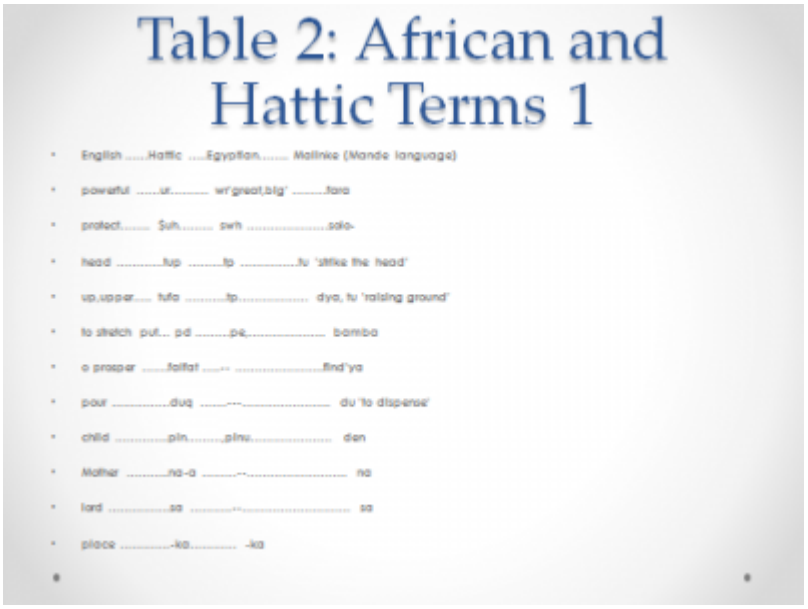

Table 2: African and Hattic Terms 1

- English ..... Hattic ..... Egyptian..... Mallnke (Mande language)
- powerful .....ur..... wr'great,big' .....faro
- protect..... $uh..... swh .....sako-
- head .....hup .....tp .....hu 'strike the head'
- up,upper..... hufa .....hp..... dya, tu 'raising ground'
- to stretch put... pd .....pq..... bamba
- o prosper .....haifat .....-- .....find'ya
- pour .....duq .....---..... du 'to dispense'
- child .....pin.....pinu..... den
- Mother .....na-a .....--..... na
- lord .....sa .....--..... sa
- place .....-ka..... -ka

Illustration 5

Table 3

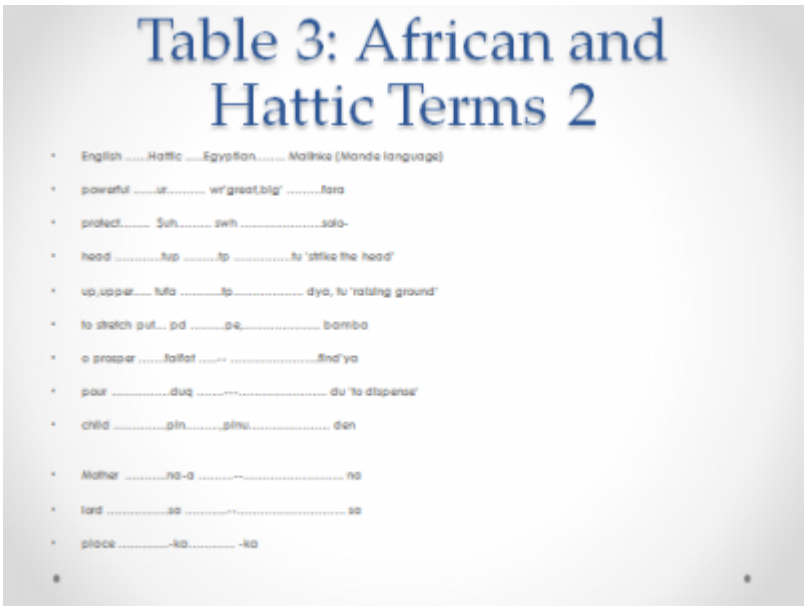

Illustration 6

Table 4

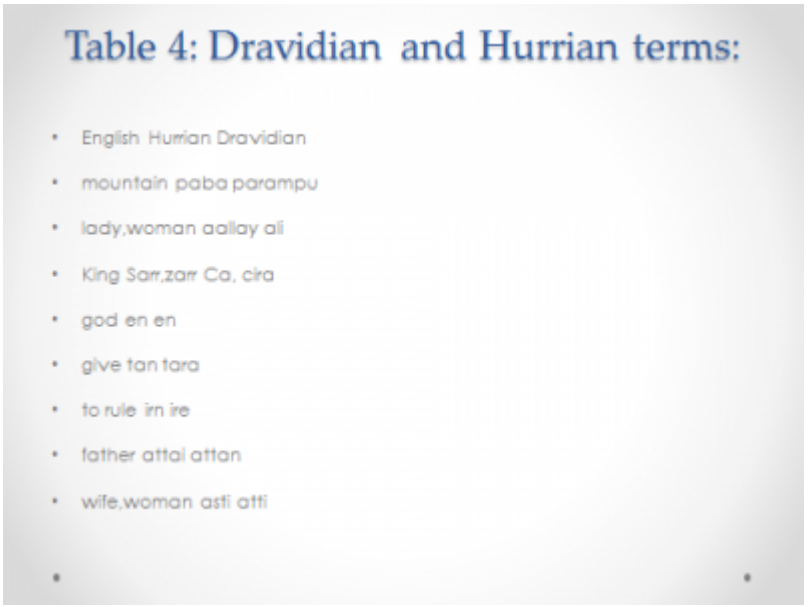

Illustration 7

Table 5

Table 5: COMMON INDO-AFRICAN TERMS

ENGLISH	DRAVIDIAN	SENEGALESE	MANDING
MOTHER	AMMA	AMA,MEEN	MA
FATHER	APPAN,ABBA	AMPA,BAABA	BA
PREGNANCY	BASARU	BIIR	BARA
SKIN	URI	NGURU,GURI	GURU
BLOOD	NETTARU	DERET	DYERI
KING	MANNAN	MAANSA,OMAAD	MANSA
GRAND	BIIRA	BUUR	BA
SALIVA	TUPPAL	TUUDDE	TU
CULTIVATE	BEY	,MBEY	BE
BOAT	KULAM	GAAL	KULU
FEATHER	SOOGE	SIIGE	SI, SIGI
MOUNTAIN	KUNRU	TUUD	KURU
ROCK	KALLU	XEER	KULU
STREAM	KOLLI	KAL	KOLI

Illustration 8

Table 6

Table 6: Dravidian and Senegalese Terms

English	Senegalese	Dravidian
body	W. yaram	uru
head	D. fuko,xoox	kukk
hair	W. kawar	kavaram 'shoot'
eye	D. kil	kan, khan
mouth	D. bufum	baayi, vaay
lip	W. tun,F. tondu	tuti
heart	W. xol,S. xoor	karalu
pup	W. kuti	kutti
sheep	W. xar	'ram'
cow	W. nag	naku
hoe	W. konki	
bronze	W. xanjar	xancara
blacksmith	W. kamara	
skin	dol	tool
mother	W. yaay	aayi
child	D. kunil	kunnu, kuuci
ghee	o-new	ney

Illustration 9

Table 7

Table 7: Dravidian and African terms for Millet

Kol	sonna	---	---	----
Wolof (AF.)	suna	---	----	---
Malinke (AF)	suna	bara, baga	de-n, doro	koro
Tamil	connal	varaga	tinai	kural
Malayalam	colam	varaku	tina	---
Kannanda	---	baraga, baragu	tene	korale,korle
Proto-Millet	*sona	*baraga	*tenä	*kora

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