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The Nature and Size of Linguistic Contact Possible in Three Centuries

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1. Introduction

Around AD 1600, the Orma, the southern tip of a huge Eastern Cushitic-speaking language /dialect chain with several million members stretching up into Ethiopia, moved aggressively into northern East Africa. They occupied the valley of the Tana River in Kenya, the country on either side, and spread south along the coast. Their occupation altered the linguistic landscape. For almost three centuries they surrounded and subjugated all the small communities living along the Tana, and subjected them to massive linguistic pressure (see Sasse 1979). These included the (Cushitic-speaking) Aweera (= Boni) and Dahalo, and the (Bantu-speaking) Pokomo and Ilwana (= Malakote): the Ilwana are one of the two targets of this discussion. Ca. AD 1875 communities speaking northern Somali arrived along the river and defeated the Orma in battle.The Orma retired to the west/south bank of the Tana and henceforth played a lesser role in the area. The changes in Ilwana resulting from Orma influence are fairly transparent and the state of Ilwana before contact with Orma can also be to some extent confirmed by comparison with its nearest relatives.

The other target of this discussion is the Daiso community who speak a Bantu language closely related to Kamba. Their early history is not quite clear, but in AD 1571 Daiso seem to have been at Malindi on the Kenya coast, twenty years later at Mombasa, and to have arrived shortly thereafter at their present location some fifty kilometers northwest of Tanga in northeastern Tanzania. Their language was first recorded there near the end of the 19th century. So if they are assumed to have split off from their Kamba brothers shortly before they were at Malindi, their language also had some three centuries to undergo the changes that now distinguish it from Kamba.

Here are two (Bantu) languages which have both undergone three centuries of disturbance, even the same three centuries. As their earlier state can be worked out or assumed, we can compare the kinds and size of contact-induced change possible over the same time period - a rather unique opportunity. As will be seen, the results and the circumstances leading to them are different.

2. Ilwana and Orma

2.1 Orma as a Language

Heine and Vossen (1980) contains a typological overview of Kenya's Cushitic languages, including Oromo, of which Orma is one dialect. Stroomer (1987) sets out a mass of detail on three Oromo dialects, including Orma. They form the basis for all typological and areal claims below.

In the NP of most Kenyan languages: N precedes possessive, adjective, numeral and demonstrative; the governing NP precedes the governed/genitive NP. Also the indirect object precedes the direct object. As a Kenyan Cushitic language Orma is SOV; AUX follows the main verb; postpositions predominate; verb derivational extensions are mostly preverbal except the causative, which is suffixal; the number of verbal extensions is relatively small (Orma has three: causative,

'passive', middle voice); there is a grammatical distinction masculine vs. feminine; and possessive, adjective, demonstrative, and verb agree with the noun in gender. As most Kenyan Cushitic languages, Orma has minimal gender or number marking on the noun. In the verb, Cushitic languages, including Orma, show past vs. non-past, which Heine, in later work, interprets as perfect vs. imperfect. Oromo's consonant inventory, as that of some other Cushitic languages, is large: depending on dialect, it contains at least twenty-five members, including an ejective series. As in many surrounding languages, there is an (inherited) contrast of implosive (partial series) vs. explosive stops. Consonants may geminate, and the status and behaviour of [h] and the glottal stop are distinctive. Oromo has five vowels with phonemic length. Vowels may devoice word-finally. Long vowels may shorten under certain conditions and suffixal *-n(i)* may delete under certain conditions. As all Kenyan Cushitic languages, Orma is tonal.

2.2 Orma as a Linguistic Community

During the period under investigation, the Orma were demographically superior, a fact obscured by today's situation. The most recent (1991) estimate puts the Ilwana (Rossbach, pc) at 15,000: assuming an average of four children per family, then adults would not exceed 5,000. Estimates of the size today of the four Kenyan Oromo dialect communities combined are 70,000 plus, somewhat larger than that of the Ilwana. Although these southern Oromo are part of a huge language chain going up into Ethiopia, that is hardly relevant since the northern relatives were never in the south. But the Oromo have undergone an almost catastrophic decline since the last quarter of the nineteenth century, as a result of military defeat by Somali, epidemics, rinderpest, and other factors. On the other hand, it is likely that the number of Ilwana has risen quite substantially over the same period. Thus the discrepancy in population size is likely to have been much larger a century or more ago and the Orma could well have outnumbered the Ilwana ten to one.

Orma were also militarily and economically superior to Ilwana, and doubtless felt themselves socially superior. They were cattle herders, with a similar set of assumptions about ownership of cattle and about neighboring peoples as the Maasai. They were effortlessly mobile, while the Ilwana, although partly dependent on hunting, were essentially sedentary farmers. Judging by the widespread adoption of kinship terminology by Ilwana from Orma, the Orma imposed themselves socially on the Ilwana.

2.3 Ilwana as a Language

As a Kenyan language, Ilwana shares the characteristics described in the first sentence of the second paragraph of 2.1 above. As a Kenyan Bantu language, Ilwana is SVO; AUX precedes the verb; prepositions predominate; and all verbal derivational extensions are suffixal. The number of extensions today appears to be five (causative, applicative, passive, stative, reciprocal), with the reversive at least having been widely replaced by individual lexical items, and there being no evidence for other extensions present in Ilwana's Bantu relatives. There is also one extension of Orma origin but it occurs only on verbs of Orma origin. Heine and Vossen point out that Cushitic languages have typically five or fewer extensions, whereas Bantu languages have five to eight. Bantu languages are characterized by noun class/gender systems, with upwards of a dozen members, marked by prefixes and arranged in typical singular/plural pairs. All the constituents of the NP, and also

the subject of the verb, agree with the head noun. Bantu languages tend to have past vs. present vs. future, with past and future often further subdivided. Tense is most often indicated at pre-stem position, and aspect, when present, at post-stem position. All Ilwana's relatives have a reduced set of tense distinctions, and both tense and aspect tend to cluster in pre-stem position.

Ilwana has inherited seven vowels and distinctive length. Word-final vowels may devoice, and long vowels may shorten optionally under certain conditions. Ilwana is a tone language but details are limited. Kenya's Bantu languages typically have between '15 and 24' consonant phonemes (Heine and Vossen: 14). Ilwana's relatives are at the high end of this scale because they have absorbed many consonants from outside. Ilwana itself has a huge consonant inventory, with at least thirty-two consonants, including (non-inherited) ejective and implosive series. Consonants occur geminated. [h] and the glottal stop are not inherited and their behaviour is distinctive and similar to that in Orma. There are three different *-(V)ni* suffixes, and all may delete, as in Orma.

Ilwana is a Sabaki Bantu language, so its nearest relatives include Swahili and Pokomo (Nurse and Hinnebusch 1993).

2.4 Ilwana as a Linguistic Community

As a group, the Ilwana have been very vulnerable. This is clearly true for the recent and remembered past, and also in the farther past, if the linguistic evidence is to be believed. They were sedentary farmers, who also hunted widely and exploited the Tana and its products. They lived in a thin line of hamlets strung out along both sides of the river. The average size of a hamlet today is eighty, including children.

Prior to AD 1600 their history is not clear. For much of the period from AD 1600 to 1875, they were massively influenced by the Orma. The Orma must have been an overwhelming presence, in bush, field, on paths, in villages and markets. Judging by the lexical evidence, and by the few historical accounts, the Ilwana restructured their society towards that of the Orma: terminology for kinship, economy, political institutions, even personal names, point to huge Orma influence. The Orma took Ilwana wives, not vice versa. For at least the latter part of the period, most if not all Ilwana were bilingual in Orma - the bilingualism did not work the other way.

From AD 1875 on, the Ilwana must have managed to achieve a precarious balance between Orma on the west bank, and Somali on the east bank, of the river. In the early 1990s the political events in Somalia overturned the balance again.

2.5 Ilwana Influenced by Orma

2.5.1 Lexicon

Currently, some 2200 verb stems and nonverbal lexemes are available. Of these only some 22.5% are inherited. Of the remaining 77.5%, some 20% come from Swahili, slightly over 15% from Orma, and some 43% are of unclear or unidentified origin. Swahili lexical sources are more complete and available than those for Orma. Thus the Swahili figure is likely more or less accurate while the Orma figure is probably an underestimate. When the source of all items is identified the Orma figure will probably rise, perhaps equaling the percentage of inherited

items in Ilwana. Orma vocabulary can be shown to cluster in certain areas, some pointed out above.

2.5.2 Sound System

While much in the Ilwana sound system is inherited, much is also innovated. Somewhat over half of the consonant inventory is inherited, as are the seven vowels and two lengths. On the other hand, nearly half the current consonant inventory has no inherited source, and many phonological features are of outside, mostly Orma origin: all four ejectives, geminates (or gemination ?), the presence and behaviour of [h] and [ʔ], the deletion of three suffixes of the shape -(*V*)*ni*, vowel shortening, final vowel devoicing, etc.

2.5.3 Nominal System

Some 1400 nouns were collected. Singular and plural forms are available for many as is much detail on NP constituents in general, concord, locatives, relatives, and pronouns.

Historically, the most curious feature of all this is the over 100 nouns, mostly in Classes 9-10, which can form plurals by what are apparently Cushitic suffixes (e.g. *si:ba* 'one lion' but *si:be:na* 'lions'). This feature does not appear to be Orma in origin.

In general, the noun class system appears to be little affected by contact with other languages, including Orma. The only ways in which Orma may have influenced Ilwana here is in a couple of new singular-plural groupings (1-10 and 9-2) and in some new possessive pronouns. An example of 1-10 is *mubokomo* 'Pokomo', pl. *bokomo* ; of 9-2- is *da:di* 'elder sister', pl. *wa-da:di* , and representative of the 'new' pronouns is *-emi* 'my, mine' = 'of me', from *a* 'connective' plus *imi* 'I, me'. While this may be 'natural' and common enough world wide, it is definitely not common in recent Eastern Bantu but is a prevalent pattern in Eastern Cushitic.

2.5.4 Verb

The verb has been significantly affected by contact with Orma. Most obviously, Ilwana's tense-aspect system has been reduced and restructured in the direction of Orma. Ilwana has fused past and perfect into one, based on the older perfect suffix: loss of a category, and use of inherited morphology to express a transferred category. There is a new future whose structure is anomalous but identical to that of Orma: inherited morphemes reused on a transferred pattern to express a transferred category. There is a progressive whose structure is also anomalous but exactly that of Orma: inherited morphemes restructured on a transferred pattern to express a category which may be transferred. Finally in two-word verbs, the Orma auxiliary 'be' has replaced the Bantu verb as the first word.

At post-stem position, the number of extensions is apparently reduced: Cushitic verbs are characterized by a smaller set of extensions than found in Bantu verbs. This needs more confirmation. An Orma extension (*at* 'middle voice') is used with many verbs, but not with native Ilwana words. Finally the Ilwana passive has extended its functions in the direction of Orma. Thus for example, the Ilwana verb *-nyota-wa* 'be thirsty', denominalized from *nyota* 'thirst', corresponds exactly

to an Orma example, as do several others. In Ilwana's relatives, such functions are not found.

2.5.6 Syntax

Heine and Vossen look at well-known order features in Kenya languages: constituents of S, NP and VP, etc. Although my investigation was not specifically aimed at such features, I had fairly abundant syntactic data and it is my impression that little change has occurred in this area.

3. Daiso and its Neighbors

3.1 Historical Background

The background of the Daiso is quite complex. Once they formed part of the eastern section of the Kamba; even today that area is referred to as U-thaisu by western Kamba. When they left is not clear but a point in the early or mid sixteenth century is likely. When the community migrated it had to split in two before a raging river. One section crossed, went down to the coast, and turning south arrived at Malindi in AD 1571 and at Mombasa twenty years later. Renowned fighters, they were recruited by a Digo ruler to help him in a local war. When victorious, he pleaded poverty and gave them Digo and Chifunzi wives as reward. The ensuing children were brought up by the mothers to speak their language. Hence these Daiso lost their language and their offspring spoke Segeju, a variant of Digo.

The other section crossed the river later and, following an undetermined route, finished up some fifty-sixty kilometers northwest of Tanga, in the eastern part of the (Bantu) Shambala-speaking area, between Bwiti and Maramba. They and their offspring today continue to speak Daiso.

The 'Segeju' seen at Malindi were herding cattle: the Daiso still have herds today. Judging by the farming base of their Kamba brothers and by what they themselves do today, they were also subsistence peasants. Onto this inherited strand was grafted a coastal connection. Despite the language rift that had developed, the Daiso and the Segeju, now Digo, communities remained close. Not only was there - and still is - extensive intermarriage with Segeju/Digo, but a trade connection emerged that had the Daiso trading to the coast and to Kilimanjaro on their own account, and also acting as middlemen for Swahili caravans starting on the coast. In order to communicate with their Digo brothers, and to participate in the trade networks, they had to acquire Swahili (and Islam). Finally, they have been living in their present location for some four centuries, in daily contact with their Shambala (and maybe Bondei) farming neighbors.

3.2 Daiso as a Language Community

The previous apparent discursion was needed as a basis for showing how Daiso got to be as it is. The Daiso, as the Ilwana, community has been linguistically vulnerable, but for different reasons. As the Ilwana, they are relatively few in number: 8,000-10,000 was the estimate offered by several people (no official figure available) and may have been significantly fewer at the start of the twentieth century. The other reason has been their forced historical openness to outside influences. They have had to be bi- or multilingual for much or all of the last four

centuries. As a community they started off by speaking a form of Kamba. Then some (many? all?) acquired Digo to talk to their coastal brethren. Then they acquired Swahili in order to carry out their trading and all Daiso claim to be bilingual in Swahili today. Because of the coastal connection they became Muslims and Udaisu is today a Muslim island in a Christian sea. Because they were Muslim, some members of the community acquired Arabic. And because they lived in the Shambala area, some (many? all?) acquired some knowledge of Shambala, the dominant local language. I also found some evidence of knowledge of other languages (e.g. Zigula). There was no suggestion that Digo/Segeju, Swahili, or Shambala can speak Daiso, so, as for the Ilwana, bilingualism only works one way.

I had the impression that relations between Daiso and Digo/Swahili were cordial. On the other hand, this was less true for Daiso-Shambala relations, perhaps because in the past the Daiso were closely connected with coastal trade, which had had a proven slave component until the nineteenth century.

3.3 Daiso as a Language

As a Bantu language, Daiso would have had and has the following characteristics: SVO; all NP constituents follow the head noun; the governing NP precedes the governed/genitive NP; prepositions; the usual noun class system, with over a dozen classes, familiar singular-plural pairings and agreement with the noun across the NP and into the verb; Aux precedes verb; suffixal extensions.

As a member of the Central Kenya Bantu group, Daiso would have had: aspect marked predominantly in suffixal and tense in pre-stem positions: multiple (three) past and future (two or three) distinctions; seven vowels and distinctive length; distinctive tones; and a relatively small consonant inventory because Bantu spirantization had not occurred. As a member of this group, Daiso would also have had specific morphemes occurring at suffix and pre-stem positions, specific allomorphs, and, of course, certain specific lexical items.

How this was altered will be seen in 3.5 below. It should be noted that, although Daiso appears to have had four centuries to change, today's Daiso is apparently identical to that described by Baumann in 1891 - only three centuries after the community settled at Bwiti. Thus the essential changes - less some Swahili lexis perhaps - had already occurred then. They might, of course, have taken less than three centuries, just as the changes in Ilwana.

3.4 Contact Languages (Shambala, Swahili, Digo)

Digo and Swahili are very similar and closely related languages. Both are similar and related, though slightly less so, to Shambala. While they share many general Bantu features, all three also share many specific features. They share general Bantu features with the Central Kenya languages but differ in specifics.

They have five vowels but no distinctive length; Digo and Shambala (but not Swahili) are tone languages sharing certain details; they have larger consonant inventories than the Central Kenya languages, having undergone spirantization. They share particular verbal morphemes, specific allomorphs, and a certain set of lexical items. They make more use of verbal auxiliaries. They have a reduced set of verbal suffixes compared to Central Kenya languages, make more use of the pre-stem position for aspectual distinctions and have fewer past and future distinctions.

3.5 Daiso Influenced by its Neighbors

3.2, 3.3 and 3.4 are set out in such a way as to make certain outcomes seem likely. First, the language of a small insignificant community, separated from its nearest relatives, forced by circumstances to make bi- or multilingualism a way of life, living for centuries amidst communities speaking different languages, is likely to be reshaped. Second, given that Daiso and the contact languages are genetically related and typologically similar, most adaptations are likely to be minor rather than major.

While the quality of some of the Daiso data could be better, the following changes are clear.

3.5.1. Sound System

At the level of sound Daiso has: neutralized its inherited length distinction in vowels but kept seven vowels (all the vowels of the class prefixes however appear to be the highest vowels in the system and thus likely taken from or modelled on one of the contact languages); enlarged its consonant inventory so that of twenty-seven consonant phonemes eight occur mainly or exclusively in non-inherited words; phonological processes and morphophonological processes have been frequently adapted so that the outcome is that of Daisu's current neighbors. The single most obvious source of these phonological changes is Shambala.

3.5.2. Nominal System

Several aspects of the NP were also examined: the class system, class markers and allomorphs (esp. of Classes 5, 7, and 9-10), singular-plural pairings, concord, and NP constituents. Very little significant change was found. New are: a minor pairing (14-10), third person pronouns based on demonstratives, and allomorphy for classes 5 and 9-10. All these appear to come from Shambala. Animate concord has entered from either Swahili or Bondei.

3.5.3. Lexicon

The over 1050 verb stems and other lexemes in the currently available lexicon were examined. Some 40% are inherited, 60% are not inherited. The latter were compared with corresponding items in Swahili, Shambala, Digo, Pare and other local languages. It should be borne in mind that Swahili and Shambala are better documented than the other languages. The two biggest sources, roughly of equal size, were Swahili and 'indeterminate': by the latter is meant either that the origin of an item could not be determined or that an item's shape and/or meaning was such that it could have come from more than one of the contact languages. Together, Swahili and 'indeterminate' contributed 82% of the non-inherited material (=49% of the total), Shambala 12% (7% of total), and Digo 4%. Many agricultural and domestic terms came from Shambala, and some kinship terms came from Digo, insofar as their origins could be determined. Swahili terms are ubiquitous.

How is this lexical picture to be explained? Initially, in their new location, the Daiso clung to the connection with their coastal brethren, the Segeju. From the beginning the Segeju had shifted to Digo. Intermarriage continued, even to today. So it is not surprising to find Digo kinship terms in Daiso. What then became important about the coastal connection was its link with trade, and the language of

the trade caravans from the coast to the Usambaras, Kilimanjaro, and elsewhere was Swahili. As central figures in this trade, the Daiso acquired Swahili and there was considerable bilingualism, probably from an early point. So the high level of Swahili lexical penetration is probably not a twentieth century phenomenon, but of longer standing. Finally, Shambala lexical penetration is easy to understand, given Daisu's location, but surprisingly light, given the phonological picture.

So far, there is a curious discrepancy. A majority of Daisu's lexicon is not inherited and the largest identifiable contributor is Swahili, as just explained. On the other hand, in terms of phonemic inventory, (morpho)phonological processes, and minor details of N and NP, Daiso has moved considerably towards Shambala. We have to think that three or four centuries of regular daily contact with Shambala produced the latter adaptation, with the underlying and unspoken acknowledgement that it was necessary or unavoidable, probably hardly noticed.

3.5.4. Verb

Finally, several features of the verb were examined in some detail: extensions, tense, aspect, pre- versus post-stem morphology and categories, and auxiliary use. A speaker of Kamba or Kikuyu, looking at Daiso extensions, would see few differences, not surprising, given that the contact languages and the Central Kenya languages are not greatly different in this area. But the same speaker would find Daiso's TA system quite unfamiliar. It is characterized by three main changes: inherited suffixes expressing aspect are reduced from five to two; while past reference is largely maintained, 'present' and future reference is changed and reduced; there is a general reduction in verb-morphological and -categorial complexity.

As in the sound and nominal systems, so here the largest single source of individual non-inherited morphemes is Shambala.

It is much harder to point to the source of the general structural and categorial changes. The end results do not correspond to those in any one contact language. What has emerged is a morphologically and categorially reduced system, looking less like a Central Kenya language, and more like coastal languages in general, but with no single clear source.

4. Ilwana and Daiso: Generalizations

Ilwana and Daiso were small communities surrounded by larger communities and open to their influence. In one case (Daiso) the community was also exposed to the influence of another, not much larger, not even adjacent, community (Swahili), but one that was important for commercial reasons. In one case (Ilwana) the larger community's threat was backed up by military force and in the case of the other, it was not. Both apparently became bi- (or in the case of Daiso possibly multi-)lingual: this polylingualism was unidirectional. In one case the source of outside influence was a single typologically and genetically different language: in the other case the contact languages were of the same family.

In three centuries, or possibly less, the following changes characterized both languages.

Both have undergone massive lexical change. Although the quantity of vocabulary available for both is not great (2200, 1100 items), 60% of this in one case, and over 75% in the other, has been transferred. In one (Ilwana), some 15% of these transfers come from the contact language (likely more if the sources of all

transfers could be identified); in the other case 25% come from a commercial contact language. Judging by what we know of other languages, these percentages would be likely to increase if more vocabulary were available. These heavy transfers occur throughout the vocabulary and both languages also show concentrations in specific semantic areas. One feature of both is that these heavy concentrations of transfers do not show up well on Swadesh-type lists: on the 100-word list Ilwana has only 25% not inherited, Daiso 15%.

In one case (Daiso) the major source language for the new vocabulary is different from that of the non-lexical material.

In both cases phonemic consonant inventories have enlarged, in one (Ilwana) massively so. One interpretation might be that, at least for Ilwana (which has ejectives and an implosive vs. explosive contrast), this involves the assimilation of many marked sounds. A better interpretation would be that both languages have simply moved taxonomically in the direction of the contact languages. In both cases the new consonants are those common to several surrounding languages.

In both cases a number of (morpho)phonological processes have been taken over from the contact language. This simplifies the task of a bilingual.

Tense-aspect systems have undergone considerable change towards the contact languages. In both cases there is restructuring, and reduction of verb-morphological and -categorial complexity. The reduction is only a function of the target languages. Both languages have restructured their categories towards those of the target languages. In some cases inherited morphemes and morphology are used; in other cases transferred morphemes are used; and in other cases inherited morphemes are used in structures calqued on those of the target languages. Where inherited morphemes or morphology are not useful, they are dropped or relegated to minor functions.

In both cases, noun class systems have remained largely intact, with only minor adjustments, mostly phonological. Similarly, in syntax, no major changes were found, although this was not the focus of my investigation.

In neither case was there any evidence of language shift into the minority language nor of pidginization. I therefore conclude that what is described above, and referred to neutrally as 'transferred', in fact results from borrowing.

References

Baumann, O. 1891. Proben der Kissegeju- und Kiparesprache. Usambara und seine Nachbargebiete, O. Baumann, ed., 340-346. Berlin.

Heine, Bernd, and Rainer Vossen. 1980. Language structures in Kenya. The Non-Bantu languages of Kenya, Bernd Heine, ed. 13-27. Berlin: Dietrich Reimer.

Nurse, D. 1982. Segeju and Daisu: a case study of evidence from oral tradition and comparative linguistics. History in Africa 9:175-208.

Nurse, D. n.d. Inheritance, contact, and change in Daiso. St. John's. Ms.

Nurse, D. n.d. Inheritance, contact, and change in Ilwana. St. John's. Ms.

Nurse, D, and Thomas. J. Hinnebusch. 1993. Swahili and Sabaki, a linguistic history. Berkeley: University of California Press.

Rossbach, Hans-Joseph. 1991. 1990-1991 Annual report on Bible translation and literacy in the Malakote language. Nairobi: Bible Translation and Literacy.

Rossbach, Hans-Joseph. 1992. 1992 Annual report on Bible translation and literacy in the Malakote language. Nairobi: Bible Translation and Literacy.

Rossbach, Hans-Joseph. 1993. Preliminary working dictionary Malakote-English-German-Swahili. Nairobi. Ms.
Sasse, Hans-Jürgen. 1979. Entlehnung morphophonemischer Regeln im Boni. Sprache und Geschichte in Afrika 1:93-108.
Stroomer, Hendrikus, J. 1987. A comparative study of three southern Oromo dialects in Kenya. Leiden University dissertation..
Thomason, Sarah G. and Terrence Kaufman. 1987. Language contact, creolization, and genetic linguistics. Berkeley: University of California Press.