# THE LINGUISTIC HISTORY OF SISUUMBWA, KISUKUMA AND KINYAMWEEZI IN BANTU ZONE F 

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# THE LINGUISTIC HISTORY OF SISUUMBWA, KISUKUMA AND KINYAMWEEZI IN BANTU ZONE F 

By

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#### Abstract

This research describes the linguistic history of SiSuúmbwà (F23), KìSükuma (F21) and KìNyàmweézi (F22) (henceforth SSN). Two areas are investigated, phonology and vocabulary. In phonology, the comparative method is used, focussing on five processes. Bantu Spirantization (BS), seven to five vowel system reduction ( $7>5$ ); Dahl's Law (DL); glottalization; and voiceless nasal formation. Vocabuiary is used to examine quantitative and qualitative evidence Quantitative evidence uses lexicostatistics to determine lexical retention and sub-grouping. The comparative method is employed in analysing shared lexical innovation as a measure of qualitative evidence, and hence genetic relationship.

In SSN, the varieties investigated are ten: SiSúumbwà (F23): SiSilòòmbo (F23a), SiYómbe (F23b), and KiLȯoongó (F23c), KíSúkúmà (F21): KìmúnàSúkùmà (F21a), GìnảNtu̇zú) (F21b), JinàKì̀yâ (F21c), and KìNyȧmweézi (F22): KìNyànyeèmbé (F22a), KìDajkàma (F22b), SiGälagaànzà (F22d) and KIKönóongo (F22e). SSN is part of Guthrie's (19671971) Bantu Zone F. The rest of Zone $F$ languages are also discussed for comparison: KiTỏóngwè/ KiBèèndè (F10), KìKíímbù̀ (F24), íCíWùùngù (F25), KìnìLảảmbả (F31), KíRìmi (F32), KiiRàggi (F33) and KèèMbùwè (F34).

The contact models of language development after Thomason and Kaufman (1988) are used. while the family tree model illustrates the results of lexicostatistics

The analysis of the data and historical interpretation of the linguistic patterns suggest that Zone F is a result of linguistic convergence by geographical adjacency. Guthrie (1948:73) asserts that the zones are mainly geographical entities. But using linguistic criteria to group them implies that they are also linguistic and hence genetically valid (Guthrie 1948.23, 1967:46-47). For instance, BS is found in F10 and F23 only, DL in F21 and F22b only, and not in the rest of Zone F, including the core of KìNyamweézi (F22a, F22d, F22e). Glottalization is found mainly in F23. In the rest, especially F21 and F22, borrowing is suggested, by evidence of double reflexes: Proto Bantu *p $\rightarrow / \mathrm{p} /$ and $/ \mathrm{h} /$. Voiceless nasalization is also found in the DL languages only, F21 and F22b. Most of the lexical innovations are not unique to Zone $F$. They are areal, shared by other zones. Combined with the phonological facts, this suggests the death of linguistic Zone F .


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## LIST OF ABBREVIATIONS, SYMBOLS AND DEFINITIONS

(i) Abbreviations and symbols

| <kiIya> <br> [kinya] <br> /kirya/ <br> \{kirya\} | $=$ grapheme < > graphic representation  <br> $=$ phone  [] phonetic representation <br> = phoneme //phonemic representation  <br> $=$ morpheme $\}$ morphemic representation  |
| :---: | :---: |
| $>$ | = becomes, goes to (diachronic process/derivation) |
| $<$ | = comes from, derives from (diachronic change) |
| $\cdots$ | $=$ is realized as (synchronic derivation) |
| PB * x | $=$ Proto Bantu reconstruction, mainly by Guthrie ( $x$ = any word) |
| ? | = unconfirmed, uncertain or doubtful case |
| $\sigma$ | = syllable |
| ${ }_{0}$ | = any number of syllables |
| C | $=$ any consonant |
| V | = any vowel |
| + | = syllable boundary |
| , | = separating different forms of a lexeme or concepts in different languages (Chapter 4) |
| cf | = compare with these forms, which may be related or not (Chapter 4) |
| [] | = enclosing languages which do not form the complete set (Chapter 4) |
| () | $=$ enclosing related languages being compared to the rest (Chapter 4) <br> $=$ explanation follows, especially type of innovation (Chapter 4) |
| vi intransitive verb |  |
| vt transitive verb |  |
| p.c. | = personal communication |
| Si | = SiSiloombo, SiSiloómbó (F23a) |
| Yo | = SiYoombe, SiYoómbé (F23b) |
| Lo | = KiLoongo, KiLoongó (F23c) |
| Su | = KırmunaSukuma, KìmunàSùku̇mà (F2la) |
| Nt | = GinaNtuzu, GìnaNtüzù (also GìmùnàNtuzui) (F21b) |
| Ki | = JinaKıya, JinàKììyả (also JimủnàKììyã) (F21c) |
| Da | $=$ KıDakama, KíDȧkámà (F22b) |
| Ny | = Kinyanyeembe, KinyàNyėembe (F22a) |
| Ko | = KiKonoongo, KìKonoongò (F22e) |
| Ga | = SiGalagaanza, SiGalàgaànzà (F22d) |
| Be | = KiBende/KiTongwe, KiTongwè/KiBènde ( $\mathrm{F} \mid 0$ ) |


| Us | = KınaUshoola, Kìnàùshoolà (F31a) |
| :---: | :---: |
| La | $=$ KintLaamba (Central), KìnìLaàmbá (F31b) |
| Ha |  |
| Ah | = GiAhi, GiAhi (F32b) |
| Rw | = GIRwana, GìRwàanà (F32a) |
| Mu |  |
| Kn | = KIKirmbu North (F24a) |
| Ks | = KiKIImbu South (F24b) |
| Wu | = ICIWuongu, iCiWùùngù (F25) |
| Ra | $=$ KiiRangi, KiiRàngi (KiiLàngi) (F33) |
| Mb | = KeeMbuwe (KiMbugwe), KėeMbuiwe (F34) |
| Sk | = KıSukuma, KìSukuma |
| Nz | = KıNyamweezi, KìNyàmwéézi |
| Km | $=$ KiKirmbu, KíKíímbù |
| Lm | $=$ KiniLaamba language (not the dialect) |
| RI | = KiRimi (or KiNyaturu) |
| Nk $=$ GrnaNtuzu + JinaKılya |  |
| Sk $=$ Nk (GinaNtuzu + JinaKirya) + KimunaSukuma (KıSukuma) |  |
| Sd $=$ Sk (Nk (GinaNtuzu + JinaKirya) + KımunaSukuma) + Kidakama |  |
| $\mathrm{Nz}=$ KINyanyeembe + KIKonoongo + SiGalagaanza (KINyamweezi) |  |
| Sy $=$ SiSiloombo + SiYoombe $=($ SiSuumbwa, SiSúúmbwà $)$ |  |
| $\mathrm{Ul}=$ KrnaUshoola + KıniLaamba $\mathrm{C}($ Central $)$ |  |
| Km = Kikirmbu North + KiKIImbu South (KikIImbu), KíKíímbù |  |
| $\mathrm{SN}=\mathrm{Sd}+\mathrm{Nz}$ |  |
| $\mathrm{Ar}=\mathrm{GiAhi}+\mathrm{GIR}$ wana |  |
| $\mathrm{NM}=\mathrm{SN}+\mathrm{Km}$ |  |
| $\mathrm{Lm}=\mathrm{Ul}+\mathrm{KInIH}$ Hanzu |  |
| $\mathrm{RI}=\mathrm{Ar}+\mathrm{Y}_{\text {InyaM }} \mathrm{Munyinanyi}$, KìRìmi |  |
| $\mathrm{NL}=\mathrm{NM}+\mathrm{Lm}$ |  |
| $\mathrm{NR}=$ |  |

The following groupings are adapted from the inspirations of Nurse (1979b), Nurse and Philippson(1980a), Nurse (1988), Nurse and Hinnebusch (1993), Schoenbrun (1997), Muzale (1998), Ehret (1999), Schadeberg (2000) and Maho, Nurse and Philippson (2000) with slight modifications where relevant. They are open for better modification because information is not yet complete, sometimes it is inaccurate, or it is both.

Western Highlands (DJ60) = KinyaRwanda (DJ61), KiRundi (DJ62), iKiFuliiru (DJ63). KiShußi (DJ64), KiHangaza (DJ65), iGiHa (DJ66), KiVinza (DJ67)
North Rutara (EJII-14) = Runyoro (EJII), RuTooro (EJI2), oLuNyankole (EJI3).
oLuCiga (EJ14)
South Rutara $=$ oRuNyambo (EJ21), oRuHaya (EJ22 (RuZiba (EJ22a), RuHamba (EJ22b), Runyalhangiro (EJ22c), RuHyoza (EJ22e)), RuZinza (EJ23), RuKereße (EJ24)
Suguti (EJ25) = Kifita (EJ25a), KiKwaaya (EJ25b), KiRegi (EJ25c), CiRuri (EJ25d)
North Nyanza (EJ15-EJ17) = LuGanda (EJ15), oLuSoga (EJ16), oLuGwere (EJ17)
Luhya (EJ30 and EJ41) $=$ LuMasaaßa (EJ31) $=$ LuGisu/LuKisu (EJ3la/b), Lußukusu (EJ3|c1), oLuSyan (EJ31d), oLuTachon (EJ3le), oLuDadiri (EJ31f), LuBuya (EJ3|g), LuWayga (EJ32a), oLutsotso (EJ32b), LuMarama (EJ32c), LuKisa (EJ32d), LuKabarasi (EJ32e), LuNyala (EJ32f), LuNyore (EJ33), oLuSaamia (EJ34) $=$ LuXaayo (EJ34a), LuMarachi (EJ34b), oLuSogga (EJ34c), LuNyuli (EJ35), LuLogooli/LuRagooli (EJ41), Lwidaxo (EJ4|a), Lwisuxa (EJ4lb), oLuTiriki (EJ4|c)
East Nyanza (EJ42-EJ45) $=$ KiNgurimi $(E J 401)$, KiKuria (EJ43), iKiZanaki (EJ44) including varieties like iKiIsenyi (EJ44b), KiNdali (EJ44c), KiSiora (EJ44d), KiSweta (EJ44e), KiRoba (EJ44f), Kilkizu (EJ44g) GiRango (EJ44h), KiSimbiti (EJ44k), KiShaashi (EJ44I), KiHacha (EJ44m), KiNata/Kilkoma (EJ45), (eKiGusii (EJ42))
Thagicu/Central Kenya (E50) = Gikuyv (E5I), KiEmbu (E52), KiMeru (E53), KiTharaka (E54a), KiCuka (E54b), KiKamba (E55) and KiSonjo (E46)
Chaga/Kilimanjaro-Taita (E60, with or without E74) KiRwo/KiMeru (E61), KiSiha (E611), KiChaga (E62), KiMachame (E62a), KiWunjo (E62b), KiRombo (E62c), KiWoso (KiBosho) (E62d), KiSeri (E62e), KiKeni (E62f), KiArusha (E63), KiKahe (E64), KiGweno (E65), KiTaita (E74) $=$ KiDaßida (E74a), KiSagala (E74b)
Seuta (some G20), (some G30) = KiShambala (G23). KiBondei (G24). KiZigula (G31), Kingulu (G34)
West Ruvu (G10, G39) = CiGogo (G11), KiKagulu (G12), KiSagala (G39)
East Ruvu (G30) = Ki引hwele (G32), KiDoe (G321), KiZalamo (G33), iKiLugulu (G35). KiKami (G36), KiKutu (G37), G38 CiVidunda
Sabaki (G40 and E71, E72, E73) = KiMwani (G401), KiMakwe (G402), CiFundi/KiShirazi (G403), KiTikulu (G41) $=($ Kitikulu $(G 41 a), \operatorname{KiMbalazi}(G 41 b)), K i S w a h i l i(G 42)=($ KiAmu (G42a), KiMvita (G42b), KiMrima (G42c), KiUnguja (G42d)), KiPemba (G43) $=\left(\right.$ KiP $^{\text {' }}$ emba (G43a), KiTumbatu (G43b), KiHadimu/ KiMakunduchi (G43c)), KiKomoro (G44) = (Kingazija (G44a), KiNjuani (G44b)), Kiфokomo (E71), KiDhaiso/KiSegeju (E56), MijiKenda $=($ KiGiryama (E72a), KiKauma (E72b), KiConyi (E72c), KiDuruma (E72d), KiRabai (E72e), KiRibe (E72f), KiJibana (E72g), KiKambe (G72h)), KiDigo (E73))
KiLombero $($ G50 $)=$ KiPogolo $(G 51)$, KiNdamba (G52)
Southern Highlands $($ G60 ) = eSiSangu (G61), eKiHehe (G62), eKiBena (G63), KiPangwa (G64), KiKinga (G65), KiWanji (G66), KiKisi (G67)
Corridor (M10 = Corridor-Fipa, M20 = Corridor-Nyiha) $=$ iCiPimbwe (M11), KiLu)gwa (M12), CiFipa (M13), CiLungu (M14), iCiMambwe (M15), , CiWanda (M21), CinaMwanga (M22), ifiNyiha (23), ifiMalila (M24), ifiSafwa (M25), Iwa (M26), Tambo (M27), (ICiWuungu (F25))
Nyakyusa (M30) $=$ IKINyakyusa (M31), CiNdali (M32)

Tamzanian Cilggoni $(\mathrm{N} 10)=\operatorname{KiNdendeule~}(\mathrm{N} \mid 01)$. KiNindi (N102), CiManda (N1I). Cingoni (N12), CiMatengo (N13), CiMpoto (N14)
Rufiji (P10) = KiNdengeleko (P11), KiRuihi (KiRufiji) (P12), KiMatumbi (P13), Kingindo (P14)
Ruvuma (P20) = CiYao (P21), CiMwera (P22), CiMakonde (P23), CiMacinga (M231), $\mathrm{CiMaßiha}$ (P25)
Northeast Coast Bantu (NEC) = Sabaki (G40 and E71, E72, E73); Seuta (G23, G24, G31, G34); Ruvu (West and east as shown above); and Pare (G21, G22) (Nurse and Hinnebusch 1993)

The foilowing symbols can be used and/or interpreted interchangeably as follows, when they occur

| $y$ | $=$ IPA [j] (palatal semi-vowel) |
| :---: | :---: |
| j | $=$ IPA [ $\dagger$ ] (voiced palatal stop) |
| c, ch | $=$ IPA [c] (voiceless palatal stop) |
| sh | $=$ IPA [J] (voiceless palatal fricative) |
| ny | $=[P A[n]$ (voiced palatal nasal) |
| ng | $=$ IPA [gg] (prenasalized [g]) |
| ng' | $=$ IPA [ m$]$ (voiced velar nasal) |
| mh | $=$ IPA $[\mathrm{m}]$ (voiceless bilabial nasal $/ \mathrm{m} /$ ) |
| nh | $=$ IPA [ n$]$ (voiceless alveolar nasal $/ \mathrm{n} /$ ) |
| nyh | $=$ IPA [ ${ }^{\text {d }}$ ] (voiceless palatal nasal $\left./ \mathrm{J}\right)$ ) |
| Øh, ngh | $=$ IPA $[f]$ (voiceless velar nasal $/ \mathrm{y} /$ ) |
| gh | $=$ IPA $[\gamma]$ (voiced velar fricative) |
| tl | $=[\mathrm{PA}[4]$ |
| th | $=[\mathrm{PA}[\theta]$ |
| BS | = Bantu Spirantization |
| DL | = Dahl's Law |
| Glott | = Glottalization |
| PAL | = Palatalization |

(ii) Definitions

Conservative language or variety: a language which has remained stable across time as to closely resemble its ancestor. KIKıImbu is sometimes called a walking Proto Bantu of modern times' because of maintaining many features of its ancestor.

Core or basic vocabulary: lexical items in a language for concepts which are not contextdependent, for example, head, leg, water, eat, cry, you, I, mother, two, expected to be found
in all languages of the world as universal givens.
Cultural vocabulary: words in the lexicon of a language expressing concepts which dependent on place of domicile, human activity, need for detail, innovation, invention, often influenced by geographical, technological or economic context, in a continuum between the universal and the cultural, for example, horse, ship, aadvark, snow, cow, lake/sea/ocean, shoe, shield, most non-primary colours (outside red, white, black), freeze, etc

Dialect: a linguistic variety in a continuum of several varieties belonging to a larger unit, the language. Close mutual inter-comprehensibility enables the speakers of each variety to use their individual varieties without the need for an interpreter.

Genetic language relationship: a connection of languages descended directly from an immediate proto language, depending on the level of analysis. For example, oRuHaya and iCiGogo, or KInILaamba (F31) and KıSukuma (F21) are not genetically related because they do not branch from an immediate ancestor, although they are both Bantu, classified in Zone F.

Glottalization: change of CPlace feature of a sound to the glottal stop [?] or [h]. In our context, it refers to change of PB *p to $/ \mathrm{h} /$. It suggests that the quality of the plosive was $\left[\mathrm{p}^{1}\right]$, and it involved loss of occlusion and retention of the aspiration, as in SiSuumewa, which is a regular diachronic phonological process.

Glottochronology: the next step in the use of Lexicostatistics for absolute dating of languages. Lexicostatistics uses the same formula and therefore assumptions about the nature of language.

Language: a speech variety linguistically distinct from other varieties whereby intercomprehension is severely limited, requiring an interpreter for meaningful communication to occur. Within the same language family or group like two Bantu languages, the boundaries between languages may be fuzzy, and therefore it is a relative term, while across other linguistic families and groups, like KiSwahili and Iraqw, it is an absolute term because the differences of the languages are sharply defined. In this study, 'language' is sometimes used in this distinctive sense, while in others it is synonymous with 'dialect'

Lenition: weakening of sounds in the strength hierarchy continuum from voiceless stops to complete sound loss as an inverse of the sonority hierarchy: voiceless obstruents $\rightarrow$ voiced obstruents $\rightarrow$ nasals $\rightarrow$ liquids $\rightarrow$ glides $\rightarrow$ vowels $\rightarrow$ total loss, or stop $\rightarrow$ affricate $\rightarrow$ fricative $\rightarrow$ approximant $\rightarrow$ zero (or stop $\rightarrow$ affricate $\rightarrow$ fricative $\rightarrow$ approximant $\rightarrow$ zero)

Lexicostatistics: a statistical analysis of vocabulary for relative chronology and grouping.

Loan, Loanword or borrowed word: a lexical item which is not native to a language but is adopted and/or adapted from other languages or dialects to become part of its own lexicon, never to be returned to the source language, contrary to the sense of terms 'loan' and 'borrow' which suggest returning or refunding the word after use.

Names of languages: while the traditional writing conventions have been maintained faithfully wherever it was feasible, some customary representations of the names were simply not correct. For instance, the name "Takama" 'south' was not used because in KiSukuma and KINyamweezi, the phonemes $/ \mathrm{d} / / / / /$ and $/ / /$ exist independently from each other while in some cases they may derive from each other as a result of processes like Dahl's Law where plosives become voiced as in $/ \mathrm{t} / \rightarrow / \mathrm{d} /, 1 \rightarrow \mathrm{~d} / \mathrm{N} \ldots$ In "dakama', the phoneme is $/ \mathrm{d} /$ rather than a process of Dahl's Law from "takama". Phoneme /d/, as in dakama, exists in words like madaaso 'rags', jidrvi 'jackal', lodomI' testicular hydrocele'

Narrow Bantu: languages of Zones A to S according to Guthrie (1967-1967) and the justification of doing so, including the split of Zones D/E into D. E, J. Those languages which are unambiguously D or E. where applicable, are represented with one letter only, while those in-between use the two-letter convention of either DJ or EJ. These language varieties are like D28a (West Holoholo DRC), D28b (East Holoholo (Tanzania), D43 Nyanga, DJ41 oLuKoonzo, DJ42 oLuNande, DJ51KiHuunde, DJ52 KiHaavu, DJ531 KiTembo, D54 KiBembe, DJ56 KaBwari, DJ60 KiRundi-KinyaRwanda (DJ6I KinyaRwanda, DJ62 KiRundi, DJ63 iKiFuliiru, DJ64 KiShußi, JD65 KiHangaza, DJ66 iGiHa, DJ67 KiVinza); Zone EJ ((EJ10 RuNyoro-LuGaanda Group Elll RuNyoro, EJ12 RuTooro, EJ13 oLuNyankole (GiHima), EJ14 RuCiga, EJ20 (RuNyambo, oRuHaya, RuZinza and RuKereße), EJ30 Luhya, EJ40 East Nyanza, E46 KiSonjo, E50 Thagicu, E60 Chaga, etc

Orthography and phonological representation: There are some standardized forms, mainly following the IPA system. But many pronunciations have been affected by writing conventions where it is difficult to trace a sound as originating from a regular sound change or from the writing system. For instance, the orthographies for $I, U, \gamma, \phi, \beta$, and $\eta$ were simplified to accommodate the simple typescripts and printers in use in Europe then. These simplified and sometimes distorted sounds became i/e for I, w/o for $\sigma$; gh for $\gamma$; f for $\phi$, $\mathrm{b} / \mathrm{v} / \mathrm{w}$ for $\beta$ and mw for gw. This can be illustrated by the case of KIRImi whose dialects have a high frequency of $/ \mathrm{f} / \mathrm{instead}$ of the expected $/ \phi /$. Other examples include the case of country names like "Malawi" which should be Malaaßi, or the famous Tanzanian towns located in $\beta$ üSukúma like Mwanza ( $\eta$ vaanzâ), Mwadui ( $\eta$ waadu $\beta i$ ).

Palatalization: effect of front or high vowels as a secondary articulatory addition to other sounds, mainly on stops, making their place of articulation more palatal. This is contrasted with Bantu Spirantization which deletes the CPlace features of stops by replacing them with the [ + consonantal] features of the superclose vowels PB *i and * $u$, making the fricatives (See

Zoll 1995:542). In KISukuma and KıNyamweezi, the conditioning vowels for palatalization are the superclose *i and *u (or *i and * 4 , as represented by Guthrie (1967-71). The end results of palatalization and Bantu Spirantization may be identical.

Place names in SSN, like ßuSukuma simply mean 'the land of KISukuma speakers' or 'Sukumaiand'. $\beta \sigma$ is the prefix signifying 'land of

Prefixes in the names of languages and their varieties: The short forms commonly used in Bantu languages can be compared to the two figures for the dates when the computers started. Like the 2 yk bug scare-cum-hoax, the fewest characters possible were used for economy of memory. In this study, the names are written in full with their prefixes. The use of the prefix Ki -, and its varieties $\mathrm{Kee}, \mathrm{Kz}, \mathrm{Ci}-\left(\mathrm{Chi}_{-}\right)$, $\mathrm{Shi}_{-}$, $\mathrm{Si}-$, or $\mathrm{Ji}_{-}$, to designate a language in the Bantu group of languages has always been ignored as redundant by earlier researchers (mostly European) of Bantu languages and linguistics who assumed and some still assume that the prefixes serve no purpose when rendered into languages like English. Some of the researchers who followed maintained that tradition of prefix omission. Because of this, proper phonological and orthographic records of languages and their varieties was not adhered to because of the limitations experienced by earlier researchers who imposed their perceptions and preferences. For example, they normally approximated most of the words, proper- and place- names to the closest alphabet they knew, normally the Roman alphabet adopted in KiSwahili writings. Thus, most of the language names were written in the KiSwahili format, with uniform prefixes even when they were not used. For instance, a language like SiSuumbwa is sometimes referred to as KiSuumbwa. One undertaking in subsequent research should be to correct such generalizations and refer to the languages by means of their proper Bantu names. The language varieties investigated therefore follow as far as possible, the phonological or orthographic format closest to how the native speakers pronounce them, unless space is not available, especially in tables.

Proto Bantu: reconstructed, hypothetical language thought to be the ancestor of all modern Bantu languages and their dialects.

Tone marks in words are avoided in most cases unless it is necessary for making a point related to tone. Tone marks are indicated mainly when introducing the names of the language varieties under investigation. Subsequently, the tones are not marked on those languages.

Traditional accepted from earlier analyses without significant modification. Eg, tradiuonal language labels and their boundaries: these are also synonymous with 'tribes' and the boundaries which were drawn more or less following the limits of each 'ribe' (See Map 1.3 from which Map $1 . /$ and 1.2 are based). Real life speech communities have no borders and hence languages have fluid boundaries which continuously interact with other languages

Variety: any speech form, either a language or dialect. In the study the term is used to refer to either language or dialect or both.

Voiceless nasals: there are four, as counterparts of the voiced nasals, $/ \mathrm{m}, \mathrm{n}, \mathrm{n}, \mathrm{g} /$ namely $/ \mathrm{m}$, ก, §, j/, also represented orthographically as mh, nh, nyh or jh , ngh or jh , where ny and ng represent $\rho$ and $\eta$ respectively. They are mainly found in KISukuma (F21) and KIDakama (F22b).

Vowels from other sources use the 7 -vowel system of the cardinal vowels of the International Phonetic Alphabet (IPA), which Guthrie (1967-1971) used: /i, ij, i, ii, e. ee, a, aa, o, oo. u. uu, $y, \psi \varphi /$. We are using the convention/i, ii, I, II, e, ee, a, aa, o, oo, U, UU, u, uu/, like Nurse (1979a) for West Tanzania, Maganga and Schadeberg (1992) for KiNyamwezi who represent the sounds as (i, ii, L, L, e, ee, a, aa, o, oo, U, UU, u, uu/, and Schadeberg (1995), with i, ii, I, II, e, ee, a, aa, $o, 00, \boldsymbol{U}, \mathrm{UU}, \mathrm{u}, \mathrm{uu}$, with the requisite tones placed where relevant, possible or necessary. The recommended transcription by the International Institute of African Languages and Cultures for the seven vowels was $/ i, e, \varepsilon, a, ~, o, u /$

Vowels (double): represent vowel length, equivalent to to $/ \mathrm{z} / \mathrm{or} / / /$ as in $/ \mathrm{a}: /$ or $/ \mathrm{a} /$ whether as contrastive or phonetically determined

Vowel reduction from 7 to $\mathbf{5}(\mathbf{7}>\mathbf{5})$ : Process of loss or merger in Bantu languages where the Proto Bantu vowel system of seven vowels, for instance, /i, e, $\varepsilon, a, \rho, o$, $u /$ is reduced to five, /i, $\varepsilon$, a, $\supset, ~ u /$ or $/ \mathrm{i}, \mathrm{e}, \mathrm{a}, \mathrm{o}, \mathrm{u} /$. The process is associated with Bantu Spirantization, as explained in Chapter 3

## Dedication

For Masele Liindege Øhalaanglli Poondejo, my father, Daudi Nyolooßi; Saayi $\eta_{\text {wanaJimenye }}$ Masele, fuưmbứ; Taámbaalû Mshamıñdı YwanăGabảadi Taambritja Kulwa; Dooto ØwanaMasele; Naamala Øwanăŋךhuungúlumé; Gigwà Øwanipoondejo; George Mattao; Saffari Sanka; Averil Ralph Pye; Milembe Masele; Hajjat Hawa Mwanaidi Mufuruki. You departed quickly before us, and we followed. A microcosm of humanity and eternity.

The tribes. For their tenacity to survive in the jungles. Hopefully they will maintain their languages a little longer while the notes are still being taken with this faded ink, slowly.

## CHAPTER ONE

## INTRODUCTION

### 1.0 INTRODUCTION

This research describes the linguistic history of SiSuúmbwà'. Kさ̀Süküma' and KìNyámweézi (henceforth SSN). The three languages are part of what Guthrie (1967-1971) calls Bantu Zone $\mathrm{F}^{3}$ (also known as West Tanzania) (See Map $/$ and 2). The varieties investigated are ten. These include the following three from SiSuumbwad (F23) SiSiloombó (F23a), SiYoombé (F23b), and KiLoongó (F2jc), three from KìSukumá (F21): KimunaSukuma
 four from KìNyamweézi(F22): KìNyanyeèmbe (F22a). Kı̇Dakámá (F22b). SiGalayaanzả (F22d) and KıKonoongo (F22e). Hitherto, SSN has been considered a valid genetic grouping by Guthrie (1967-1971), Nurse (1979a, 1999), Kahigi (1988), Ehret (1999) and

[^0]
others. But there are reasons now to doubt this. Thus, the relationship of F23 to SSN will be investigated in detail. The labels "SSN" and "Zone F" are therefore only referential at this point.

Furthermore, Zone $\mathbf{F}$ contains not only $\operatorname{SSN}$, but also has other languages and their varieties, the total list under our investigation of which is 22 , as shown in Tuh/e 1./ For comparative purposes all those varieties' data are included in order to put SSN in proper perspective. Where appropriate, these other varieties outside SSN are discussed at some length.

In this study, a comparison is made between the SSN within Zone F to trace its phonological and lexical evolution observed across time, from as far back in history as we can go for each variety, to the present. As the variety's written forms are quite recent, or virtually nonexistent, and since most of the varieties are still essentially oral, going back in time is only possible by examining the varieties by means of available synchronic data. In unwritten languages, it is usually necessary to obtain maximally accurate synchronic data for all known varieties and variations within varieties so as to make the projections into the past as valid as possible.

Table 1.1. Language varrieties of Zome F (SSN is shaded)

| "Language" ${ }^{\text {c }}$ | - Dialect | "Language" | -Dialect ${ }^{\text {- }}$ |
| :---: | :---: | :---: | :---: |
| F10 KiTóöngwè/ KiBėèndè | F10 KiBėende ${ }^{5}$ | F24 KiKíímbờ | F24a KiKímbó North |
| F21 KiSúkủmà | F21a KımináSukukná |  | F24b KiKiimboi South |
|  | F210 Ginàntizus | F25 iCiWoistygus |  |
|  | F21c Jinàkitiyat | F31 KiniLLáàmbà ${ }^{6}$ | F31a Kìnàùshóolà |
| F22 Kinyamweezi | F22a Kinyànyeémbe |  | F31b KIninLààmbà (Central |
|  | KiDảkȧmà |  | F31c Kinithàànzù |
|  | F22d SiGalàgàanza | F32 KiRimi | F32a GiRwànà |
|  | F22e Kikonóongo |  | F32b GiÂhi |
| F23 SiSúutmowá | F23a SiSildómbó |  | F32c <br> yinyàMünyiŋ̣ànyi |
|  | F23b SiYoombe | F33 KiiRangi |  |
|  | F23e Kilóòngó | F34 KèèMbùwe |  |

[^1]

Map 1.2. Study Area, SSN and Zone $F$.

The geographical locations of the varieties under investigation are contiguous, found mainly in Mwanza. Shinyanga. Tabora and Rukwa Regions (See Map 1, 2 and 3). The primary data were first collected in Tanzania in the 1970s. The informants wrote their responses in the questionnaires given to them. In order to improve their quality, the data were revised by audio recordings in 1999 with the aim of including as accurately as possible not only the segmental tier comprising of consonants and vowels, but also the tonal tier showing all the surface tones heard for each variety. The tonal tier was especially included in this revision of the data as a resource for future use by other researchers who might be interested in tonology. In this study, however, the tonal aspect is only mentioned in passing where relevant because it is a vast research area in its own right.

### 1.1 THE PROBLEM

## 1.I.I Background of the problem

Dead languages as linguistic artefacts are often viewed as cultural resources only with insignificant practical utility. However, the importance of all languages without exception remains multidimensional when they are extant. For instance, the internal dynamics of language change like the effect of Tanzania's language policy on ethnic community languages is well known (Rugemalira 1994-2-6, Rubagumya 1997. Mekacha 1997. Mkude 1999) and ceases to be an academic question only. Many of the more than 120 ethnic community languages and dialects in Tanzania are going to disappear without trace if a concerted effort is not undertaken now to record what data are currently available, not only in languages per
sc, but also in other fields where indigenous-based knowledge is accessible through language only. Nishida and Uehara (1981:109) observe this with regard to KiTöngwe plant names, that such a culture was vanishing rapidly and a record of indigenous-based knowledge like ethnobotany was urgently required. Some dialects are going to have very few speakers, while a few may have none left not far in the foreseeable future. The language varieties under such real threat include some in SSN. For example, KiLoongo's status is not known, because only occasional mention is made in non-linguistic literature, without any clear idea of how many speakers are there now, and where they live Others in this category include F3 Ic and F34, with only a few hundreds speakers remaining, while the environment for ethnic languages thriving is so hostile.

In addition, the impact of globalization as a powerful external intluence south of Lake Victoria in the long run is likely to further shrink the languages of ethnic commanities, both geographically and functionally, while making others extinct. This phenomenon is not contined to SSN alone As a political, economic as well as a cultural resource for disseminating knowledge and information, these ethnic community languages and their varieties play a central role in the preservation and transmission of culture at grassroots level. Before this language attrition and/or extinction happens while we are still at the threshold of major changes in the area, it is imperative to start studying and recording these languages before it is too late.


Map 1.3 Some language varreties of ethnic communities in Tanzania and E. Africa

Kiy to Map 1.3. (isedes and their kanguages (after Guthrie's scheme)

| Code | Language | Code | Language | Code | Language |
| :---: | :---: | :---: | :---: | :---: | :---: |
| D25 | KıLega | EJ319 | LuBuya | E54b | Kicuka (E57?) |
| D28 | KiHoloholo | EJ32a | LuWanga | E61 | KiRwo/KiMeru |
| D28b | KiHoloholo - East | EJ32b | oLutsotso | E611 | Kisina |
| 041 | oLuKoonzo | EJ32C | LuMarama | E62 | KiChaga |
| DJ51 | KiHuunde | EJ32d | LuKisa | E62a | KiMachame |
| DJ61 | KinyaRwanda | EJ32e | LuKabarasi | E62b | KiVVunjo |
| DJ62 | KiRundi | EJ32f | LuNyala | E62c | KiRombo |
| DJ63 | iKiFuliiru | EJ33 | LuNyore | E62d | KiWoso (KiBostio) |
| DJ64 | KiShupi | E.J34 | oluSaamia | E62e | KiSeri |
| DJ65 | KiHangaza | EJ34a | LuXaayo | E62f | KiKeni |
| DJ66 | iGiHa | EJ34b | LuMarachi | E63 | KiArusha |
| DJ661 | KiUjiji | EJ34c | oLuSonga | E64 | KiKahe |
| DJ67 | KiVinza | EJ35 | LuNyuli | E65 | KiGweno |
| E.J11 | RuNyoro | EJ41 | LuLogooli | E701 | killwana/Malako |
| EJ12 | RuTooro | EJ41a | Lwidaxo | E71 | Ki申okomo |
| E.J13 | oLuNyankole | EJ410 | Lwisuxa | E72 | KiNyika |
| E.J14 | oluCiga | EJ41c | oLuTiriki | E72a | KiGiryama |
| E.J15 | LuGanda | EJ401 | Gingoreme | E720 | Kikauma |
| EJ16 | oluSoga | EJ403 | KiSuba | E72c | KiConyi |
| EJ17 | oLuGwere | EJ404 | SiZaki | E72d | KiDuruma |
| EJ21 | oRuNyambo | EJ42 | eKiGusii | E72e | KiRabai |
| E.J22 | ORuHaya | EJ43 | GiKuria | E72f | KiRibe |
| EJ22a | RuZiba | EJ44 | IkeZanaki | E72g | KiJibana |
| EJ22b | RuHamba | EJ44b | Ikilsenyi | E72h | KiKambe |
| EJ22c | Runyalhangiro | EJ44C | Kindali | E73 | KiDigo |
| EJ22e | RuHyoza | EJ44d | KiSiora | E74 | Kitaila |
| E. 123 | RuZinza | Elate | KiSweta | E74a | KiDapida |
| EJ24 | RuKereße | EJ44f | KiRoba | E74b | KiSagala |
| EJ25a | CiJita | EJ44g | Kelkizu | F11 | Kitongwe |
| EJ25b | KiKwaaya | EJ44h | GiRango | F12 | KiBende |
| EJ25c | KiReki (KiRegi) | EJ44k | Kisimbiti | F21 | KıSukuma |
| EJ25d | CiRuri | EJ441 | KiShaashi | F21a | KımunaSukuma |
| EJ25e | KiKara | EJ44m | KiHacha | F21b | GinaNtuzu |
| EJ30 | Luhya Masaaßa | EJ45 | KeNata/lkoma | F21c | JinaKırya (F22C) |
| EJ31ab | LuGisu/LuKisu | E46 | KiSonjo | F22 | Kinyamweezi |
| EJ31c | Lußukuss | E51 | Gikuyo | F22a | Kinyamyeembe |
| EJ31d | oLuSyan | E52 | KIEmbu | F22b | KIDakama |
| EJ31e | oluTachon | E53 | KiMeru | F22d | SiGalagaanza |
| EJ31f | oluDadiri | E54a | KiTharaka | F22e | Kikonoongo |


| Code | Language | Code | Language | Code | Language |
| :---: | :---: | :---: | :---: | :---: | :---: |
| F23 | SiSuumbwa | G40 | KiSwahili | M15 | iCiMambwe |
| F23a | SiSiloombo | G41 | KiTikulu | M201 | iCiLambya |
| F23b | SiYoombe | G41a | KiTikulu (Socotra) | M21 | iCiWanda |
| F23c | KiLoongo (EJ10/20) | G41b | KiMbalazi | M22 | CinaMwanga |
| F24 | KIKIImbu | G42a | KiAmu | M23 | ifiNyiha |
| F24a | KIKıImbu N | G42b | KiMuita | M24 | - 1 Malila |
| F24b | KIKrmmbu S | G42c | KiMrima | M25 | ifiSafwa |
| F25 | ICIWuongu | G42d | KiUnquja | M31 | IKINyakyusa |
| F31 | KintLaamba | G42e | KiMalindi | M32 | CiNdali |
| F31a | KınaUshoola | G42f | CiFundi | M41 | CiTaabwa |
| F31b | KiniLaamba C | G42g | Cwaka | N101 | KiNdendeule |
| F31c | KiniHaanzu | 642h | Civumba | N102 | KiNindi |
| F31d | Kınlambi | G421 | Nosse Be | N11 | CiManda |
| F31e | KinaMbuga | G43 | KiPemba | N12 | CiNgoni |
| F32 | KIRImi | G43a | Kiphemba | N13 | Cimatengo |
| F32a | GIRwana | G43b | KiTumbatu | N14 | CiMpoto |
| F32b | GiAhi | G43c | KiMakunduchi | N15 | CiTonga (CiSiska) |
| F32c | Yinyamunyinanyi | G43d | KiMafia | P11 | KiNdengereko |
| F33 | KiiRangi | G44 | KiKomoro | P12 | KiRuihi/Rufiji |
| F34 | KeeMbuwe | G44a | [iNgazija | P13 | KiMatumbi |
| G11 | CiGogo | G44b | KiNjuani | P14 | Killgindo |
| G12 | CiKagulu | Gitic | KiMwani | P15 | KiMbunga |
| G21 | KiTußeta/Taveta | G44d | KiMaore | P21 | CiYao |
| G22 | CiAsu/Casu/KiPare | G51 | KiPogolo | P22 | CiMwera |
| G23 | KiShambala | G52 | KiNdamba | P23 | CiMakonde |
| G24 | KiBondei | G61 | eSiSangu | P231 | CiMaciinga |
| G31 | Kizigula | G62 | ekiliehe | P24 | CiNdonde |
| G32 | KiNghwele | G63 | ekiBena | P25 | Cimapiha |
| G321 | KiDoe | G64 | KiPangwa | P31 | iMakua |
| G33 | KiZalamo | G65 | KiKinga | X | Non-Bantu |
| G34 | KiNgulu | G66 | KiWanji | XCUS1 | Iraqw |
| G35 | KiLuquiu | G67 | KiKisi | XCUS2 | Mbugu |
| G36 | KiKarni | M11 | iCiPimbwe | XKHO | Hadza |
| G37 | KiKutu | M12 | KiRungwa | XNILI | Dholuo |
| G38 | CiVidunda | M13 | CiFipa | XNIL2 | 11-Maasai |
| G39 | KiSagala | M14 | Cilungu | XNIL 3 | Datog* |

XCUS = Cushitic, non-Bantu
XNIL $=$ Nilo-Saharan, non-Bantu
*Not all dialects, languages, orlanguage groups have been included, because of either lack of space or fragmentary information, although most languages are represented.

### 1.1.2. Statement of the problem

Most Bantu linguistic varieties are still undescribed and information about them is lacking (Polome 1980:5: Kahigi 1988:6, 7: Brenzinger, Heine, \& Sommer 1991:24, Nurse 1995b:467, 1999:10, 11). Uncovering their historical roots in a more systematic way using a technique like the Comparative Method, described below, will contribute towards a better understanding of the larger groups which they form.

### 1.1.3. Research Objectives

The study has one aim: tracing the linguistic history of SSN using phonological and lexical data, and relating that history to that of neighbouring languages. This involves using the two assumptions of comparative reconstruction: the relaredhess and the regularity hyporiceses: The relatedness hypothesis assumes that close similarity between two or more varieties can be best explained by assuming their historical relatedness and derivation from a single protoform. It also assumes that their linguistic histories can be explained by examining the phonological, lexical or morphosyntactic differences between them. The rugrikurty. hypothesis states that it is possible to reconstruct a protolanguage on the assumption that sound changes in languages are regular and predictable, and any irregularity caused by internal or external factors like contact with other languages or varieties can be accounted for

While it is possible to arrange the varieties in relative chronology as their vocabularies depart in form and meaning from the protolanguage, it is difficult, if not impossible to determine a
precise unit of absolute chronology, e.g. of years, decades, centuries. or millennia to such classified members of a category if no other supporting external evidence like specimens of material culture is available to corroborate those dates (Worsley and Rumberger 1949:46: Nurse 1997.366 ).

Thus, the objective of this research can be summarized as the description of the evolution of the phonological and lexical aspects of SSN From the results, a possible classification of the varieties is made based on the historical interpretation of the observed patterns and their implications for Zone F in general. and for SSN in particular

### 1.1.4. Significance of the problem

As a single unit, Zone F or West Tanzania in general, and SSN in particular has not been investigated systematically enough apart from a few studies, mainly by Nurse (1979a. 1999). Ehret (1984, 1994, 1999) and the seminal but general work by Guthrie (1967-71) on the whole of Bantu. This study is therefore significant in three ways. First, it is the first of its kind to compare features of these 22 varieties at once. The study provides linguistic data for use by others in genetic classification and/or any other purposes. For instance, F21 is traditionally formed by the F21a. F21b, and F21c varieties while F22a, F22b, F22d and F22e belong to F22. On the other hand. F21 and F22 are highly intercomprehensible, implying that they might have undergone more or less the same innovations from a common ancestor not far back in the past. The data highlight the questions of whether it is valid to view F21 and F22
as discrete groups instead of one, and whether it is therefore necessary to adjust the internal sub-groups according to the patterns revealed by the data

Secondly, the research is needed as a contribution to closing the gaps between the lower and higher levels of linguistic analysis in Bantu, namely, from today's varieties (dialects and languages) to Proto-Bantu. In the hierarchy of the Bantu linguistic tree. Proto-Bantu is at the highest level and is much discussed, whereas most intermediate proto-nodes have not been reconstructed and these levels are numerous'. The lower varieties are the only existing forms of a language, as a bridge to higher branches in the linguistic trees. Indeed. intermediate levels of well-studied languages. like those of the Indo-European phylum, still have gaps (Nurse 1995a.71). The challenge to do even more work in Bantu is greater.

Lastly, the study of the Bantu languages at the beginning of the $20^{\text {th }}$ century was utilitarian rather than merely academic, as summed up by one of the earliest and greatest scholars of Bantu, Meinhof(1932. Preface), that Bantu was playing "such a great part in colonisation, trade and missionary work in the continent of Africa." Instead of being externally oriented along the lines mentioned by Meinhof, this study aims at contributing a further understanding for the benefit not only of outside scholars and other interested parties, but particularly. as a tool for the speakers of those languages themselves to understand their past, examine their

[^2]present and think about their future in a different light.

### 1.1.5. Limitations of the study.

Five limitations characterize the current study. Firstly, only ten varieties from SSN are investigated, namely, SiSilómbó (F23a), SiYoombé (F23b), KiLoongo (F23c). KìmúnáSükuma (F21a), GìmủnảNtuzủ (also GìnàNtuzu) (F21b), JinàKì̀̀yà (F21c). KìDäkama (F22b), KiNyanyeembe (F22a), KiKonoongo (F22e). and SiGalagaanzà (F22d). The rest of Zone F languages and varieties are not discussed in great detail except where relevant.

Secondly, only eight proto sounds are used to illustrate the history of SSN rather than the entire phonological system of Zone F. These sounds are PB *p. *b. *t. *d. *c, *j, *k, ${ }^{*} g$. The Proto-Bantu phonological inventory is composed of the reconstructed consonant phonemes shown in Tahle 1.2, after Guthrie (1967-71) ${ }^{x}$. The vowel phonemes are *j. *i. *e. ${ }^{*} \mathrm{a},{ }^{*} \mathrm{o},{ }^{*} \mathrm{u},{ }^{*} \mathrm{y}$. long and short. The eight target sounds show more clearly five phonological developments addressed in the thesis: Bantu Spirantization, 7>5, Dahl's Law, glottalization and voiceless nasal formation. Sound changes are best shown by plosive sounds rather than by others like vowels, or nasals since the latter have changed very little, if at all. This aspect

[^3]and the next are addressed in detail in Chapter 3.

Table 1.2 Proro Bunut comsonanu phonological inventory

|  | Bilabial | Alveolar | Palatal | Velar |
| :--- | :--- | :--- | :--- | :--- |
| Plosive | ${ }^{*} \mathrm{p},{ }^{*} \mathrm{~b}$ | ${ }^{*} \mathrm{t},{ }^{*} \mathrm{~d}$ | ${ }^{*} \mathrm{c},{ }^{*} \mathrm{j}[\mathrm{f}]$ | ${ }^{*} \mathrm{k},{ }^{*} \mathrm{~g}$ |
| Nasal | ${ }^{*} \mathrm{~m}$ | ${ }^{\mathrm{n}} \mathrm{n}$ | ${ }^{*} \mathrm{ny}[\mathrm{n}]$ | ${ }^{*} \mathrm{\eta}$ |
| Prenasalized | ${ }^{*} \mathrm{mp},{ }^{*} \mathrm{mb}$ | ${ }^{*} \mathrm{nt},{ }^{*} \mathrm{nd}$ | ${ }^{*} \mathrm{~m} \mathrm{j},{ }^{*} \mathrm{nc}$ | ${ }^{*} \mathrm{mk},{ }^{*} \mathrm{ng}$ |
| Semivowel |  |  | ${ }^{*} \mathrm{y}$ |  |

Thirdly, another closely related limitation concerns the area of phonology where only three major aspects are covered: vowel systems, especially 7 vowel to 5 vowel reduction $(7>5)$; Bantu Spirantization (BS), especially as related to $7>5$, and Dahl's Law (DL). Other processes such as glottalization and voiceless nasal formation are added as secondary aspects.

Fourthly, the discussions are based on an original list of 1036 lexical items rather than on an unlimited number of linguistic data from the grammar, or entire vocabulary of Proto Bantu or Zone F (See Appertix l). The list used contains both common core and cultural vocabulary. While every care was taken to transcribe the data as accurately as possible, some items were not usable for several reasons, including inaccurate transcription due to mishearing, repetition of concepts or words in the original list which resulted in deletions that in turn reduced the final total of the words used; misinterpretation of some questions asked
in the questionnaire by both the researcher and informant resulting in giving unexpected, and therefore irrelevant responses. These shortcomings were however few.

And finally, only the segmental level is fully treated, while the tonological systems of the varieties are not part of this study, since such an inclusion would make the work overly ambitious.

### 1.2. RESEARCH QUESTIONS

The following questions guided this research. They take into account some of the questions raised by Nurse (1999.32) as a direction for future research in the area. While some are empirical research questions, others are social in nature
(1) What are the concrete criteria for the classification of Bantu languages into zones? Are they historical, areal or typological?
(2). How many of the criteria mentioned in number (1) above should a language or variety possess in order to qualify for membership into a zone?
(3). What rigorous features define Zone F, excluding all other zones?
(4). Within Zone $F$, what features distinguish one group of languages from others in exclusion of all others, justifying the isolation of those groups?

### 1.3. METHODOLOGY

Two methods are employed. Firstly, primary lexical data from field research was used as collected by Nurse and Philippson in the 1970 s and which I revised in 1999, as explained below. The procedure is divided into three components. The first component is a general overview of the sound systems and vocabularies of Zone F languages as described in the above. The features that distinguish Zone F from the rest of Eastern Bantu, modelled after Nurse (1979b) are identified. The second component identifies the phonological and lexical differences and similarities between Zone F and SSN as a subgrouping within Zone F, while the last analyses the phonological as well as the lexical differences and similarities inside the SSN varieties. The last part forms the major focus of the study. The phonological and lexical parts form chapters of their own. chapter three and four respectively.

Secondly, secondary data is obtained by documentary review of other linguistic sources. Oral and recorded folklore and folk histories are also examined when available, and their merit appraised as legitimate sources of history and knowledge. In addition, archaeological and historical sources are also consulted as they relate to (historical) linguistics.

### 1.3. I Data collection

From an original list of 1036 words, I omitted 40 or so words in discussions for various reasons. These are shown with an asterisk in Appendix 1. This list of words was originally used by Guthrie (1967-71) and modified by Polome (1980). It was further modified again by

Nurse and Philippson in the 1970s when they compiled a general list of 1036 words for the Bantu languages of East Africa (Nurse: personal communication). Where there were no apparent cognates or there was an obvious error in the datum. the lexical item was not used in comparisons. This reduced considerably the total number of usable words. The shortcomings in the data were similar to those experienced by Guthrie (1948 (1967):5.8) While in Guthrie's case the lexical items were collected, recorded and copied/recopied by others, using orthographies familiar to the research assistants rather than accurate phonological or phonetic versions of what exists in the varieties in question. I recorded all the data myself using mainly one informant for each variety. Whenever an informant got stuck. it affected the quality of the data significantly, especially because some informants found the questionnaire rather long, with many unfamiliar words and concepts. On the other hand. while I speak one of the SSN varieties, JinaKrrya, I was not conversant at all with some of the dialects. The informants' responses were relied upon in this case. some of which would qualify to be called second-hand. The use of data which is second- or third-hand, and therefore of indeterminate reliability, leads to conclusions which are essentially tentative.

### 1.3.1.I Ficldwork

Fieldwork involved having one tape recorder with two microphones for the researcher and the informant. The taping took four months, from March 1999 to July 1999. The questionnaire was 28 pages long, taking an average of three hours and 14 minutes, with a range of 2 to 6 hours per informant.

### 1.3.1.2 The informants

The informants were aged between 25 and 55 years, targely trilingual in their ethnic community language, KiSwahili and English so that there was no need for interpreters. A few were bilingual in KiSwahili and their ethnic community language. Occupational groups included University of Dar Es Salaam students and professors, employees in the government and private sector and peasants. Each informant answered the questionnaire alone except for F24b, F21c, F24a, and F32a dialects where two of them helped each other. Where there were two informants working together, any disagreements were useful and significant, for they helped clarify fuzzy areas and hence improved the data. In addition, out of the total 26 informants, only three females volunteered for the interview. One significant observation of this gender difference occurred with a few items which reflected a division of labour and therefore experience. Terms for hunting, wild animals and foods, for instance, drew contident answers more readily with people who interacted more with the named environment. Such items were few and their significance minimal, since knowledye of items in one area was compensated by ignorance over another item.

### 1.3.2 Research instruments

The list of 1036 words was printed, starting with English glosses arranged in alphabetical order, followed by the KiSwahili ones as illustrated in Tab/e 1.3. Guthrie's original list was rearranged where an item for a word was available, to match the English glosses. The serial numbers found in Guthrie (1967-71:118-145, Part 1, Volume 2) were retained for easy
reference, just as Nurse and Philippson's list retained its serial numbers for the same reason. as shown in Tuble 1.3.

Table 1.3. Sample dua used to elicit responses

| Serial No | English | KiSwahili | Zone F Variety |
| :--- | :--- | :--- | :--- |
| $133^{\prime}$ | abdomen, stomach, belly | tumbo |  |
| 495 | abscess, boil | iipu (pl majipu) |  |
| 786 | abundant | tele |  |
| $786 a$ | abundant/abound | tele |  |
| 571 | abuse, insult | (ku)tukana |  |
| 252 | abuse | (ku)amba |  |
| 809 | accustomed (get) | (ku)zoea |  |
| 274 | act (vt) | (ku)tenda |  |
| 229 | add up | (ku)jumlisha |  |
| 927 | adjacent (be) border (vi) | (ku)pakana |  |
| 662 | adze, carpenter's | tezo |  |

A copy of the questionnaire was given to each informant. During the interview, the researcher had his own copy, and he read out the list to the informant who responded orally through a microphone s/he held in her/his hands. The researcher held another for his own. and they recorded their turns as they spoke, without having to share one microphone. The lists were read in either language, although the majority of the informants preferred them read in KiSwahili. Many of the informants had demanded that they take the questionnaires home to familiarize themselves with the content for some time before the actual interview. During the time of familiarization, some even volunteered to write their responses in the blanks, and

[^4]that subsequently speeded up the interviews, because they just read out the responses. stopping only when an ambiguous word, an unknown item, an inappropriate or unacceptable response was heard

In the final version of the word-list after the interviews were completed, the KiSwahili column was removed and the English glosses simplified reference to items.

### 1.3.3 Data analysis

When the tapes were ready, 69 in all, the work of transcription started. A Sanyo TRC9010 transcriber was used. First, the data was transferred from the audio tapes by listening and writing them onto paper using IPA symbols for each of the 22 language varieties for every 28-page questionnaire. That made a total of 616 pages of A4 paper, comprising a total of approximately 22.792 words. The transcribed data were then entered into a word processor with the surface tone markings for every word.

Comparisons of the reflexes of the 8 target sounds, namely $\mathrm{PB}{ }^{*} \mathrm{p},{ }^{*} \mathrm{~b},{ }^{*} \mathrm{t},{ }^{*} \mathrm{~d},{ }^{*} \mathrm{c},{ }^{*} \mathrm{j},{ }^{*} \mathrm{k},{ }^{*} \mathrm{~g}$, were then made. The retlexes of each sound in each language variety was observed and recorded. The totals of these reflexes for each sound were then added to see their frequency and distribution in each of the 22 varieties. Exceptions to the regular patterns were noted as irregular requiring an explanation. The regular reflexes formed the basis for finer internal organization of the dialects in SSN and in Zone F. Patterns were noted and conclusions
drawn

These phonological patterns were examined to evaluate three major and two minor phonological processes. First, the 7 V and 5 V distinction in SSN and Zone F was done by identifying all relevant words with the target vowels. These vowels are mainly $/ \mathbf{I} /$ and $/ \mathrm{U} /$, which usually merge with $/ i /$ and $/ \omega /$ respectively in all 5 V languages. The cases were counted and then tabulated Secondly, Bantu Spirantization (BS) invoiving the superclose PB ${ }^{*}$ jand * $u$ vowels isolated BS and non-BS languages in SSN and Zone F. BS languages had spirants in that superclose vowel context, while non-BS ones did not show any change of reflex from the non-superclose vowels. Thirdly, Dahl's Law involving two adjacent syllables with voiceless obstruent onsets was examined. If the first obstruent was voiced, DL was confirmed. and the DL and non-DL languages identified

Glottalization as a secondary focus area treated PB *p and its $/ \mathrm{h} /$ retlex. The distribution of glottalization cases was noted and the language varieties involved identified. And tinally, voiceless nasal formation imvolved prenasalized voiceless consonants. Inlanguages displaying this pattern, the prenasalized consonants changed into homorganic voiceless nasals when the CPlace feature was deleted from the consonants while retaining the laryngeal feature [-voice] The results in each of the five areas appear in Chapter 3.

The second part involving lexical data to derive quantitative and qualitative evidence for the
validity of SSN and Zone F appears in Chapter 4. Quantitatively, lexicostatistics was used. A list of 100 words was taken from Nurse (1979a) the majority of which were in the 1036 word list. Twenty eight language varieties in all were used, the target 22 and 6 more outside Zone F as control cases. Cognates were identified for each pair of languages, the number shared between them noted and their percentages tabulated. Finally, a tree was constructed from those percentages. These percentages formed the nodes where linguistic branches diverged or converged. Conclusions were drawn based on which varieties qualified for entry into the tree. Some of these varieties were excluded from the tree because a cut off percentage had to be made.

Qualitatively, the vocabulary from the 1036 word list was examined for cases of shared lexical innovation by unique invention, borrowing or areal influence Innovation is a measure of genetic relationship.

The overall patterns trom all areas of the analysis were tinally evaluated for making conclusions about SSN and Zone F generally.

### 1.3.4 Problems in data collection

While the data collection exercise was expected to be smooth and straightforward. as it was a revision of an existing, ready-made list, the following major observations might prove useful in avoiding similar pitfalls in future data collection:

### 1.3.4.1 Ambiguous worls used in the Engish and KiSwahili glosses.

Sometimes it was difficult to ask or elicit the expected words:
(a) because the informants had several words at their fingertips and they were not sure which one(s) the researcher wanted. For instance, an entry like to harvest' and krovinct in KiSwahili was extremely ambiguous when a farming communty member was asked. The natural question was usually To harvest what?'. With such single-meaning words in either English or KiSwatili and their several senses in the other varieties, a general term of 'harvesting' in many of Zone F languages was not available. A choice of a lexical item by an informant in such ambiguous concepts would tend to automatically skew the results because a uniform lexeme would depend only on chance where as many as ten possibilities were available. This situation is illustrated clearly by JinaiKììà, just as it would be in the other varieties where farming is the mainstay of their subsistence:
"to harvest" knuna
(a) 'maize' gư-bukúv́là
(b) 'groundnuts-peanuts' gù-kùlà. gờ-tonă
(c) 'cotton', 'tamarind fruit' gù-yòßà
(d) 'groundnuts'. 'hardnuts' gò-külà
(e) 'millet' gù-gésà
(f) 'sweet potatoes' gù̀-sì̀mbá,
(g) 'beans (Phaverolus vulgaris)' gù-sola.
(h) 'veyetabies to store for the dry season' gù-hưtòla
(i) 'second harvests after major harvests, gleaning' gù-pùùmba
(j) 'baobab fruit' gờ-saànzȧ
(k) 'simsim or sesame' gù-tèmả
(I) 'lentil' gù-dưbờlà
(b) when an informant chose one context in which a word could be used, leaving out all the other contexts. To casual observers of the data, a non-cognate word appearing in a column might suggest that the variety in question had innovated or no cognates like the other varieties in the group could be found, and hence that variety or the word had a different history. For instance, an item like 'to be quiet', ku-nyamara in KiSwahili, may be ambiguous to a speech community which distinguishes between the quietness of humans versus that of nonhumans. In JinaKììyà. 'to be quiet' can be gò-hiumıưlà (for people who were talking, then stop), gö-leemhecla (for winds or animals, which were previously making noise), gסेंfuilkei (for a person who was crying), gù-chuileila (for a noisy, heavy rain).
(c) when a choice was required between formal versus informal words, the question was 'which style was required to use for research purposes especially with oral languages with no established canons for standard usage'? To an informant, any word would be produced here.

### 1.3.4.2 Informant's expected linguistic competence

Perhaps due to Tanzania's multilingual setting where KiSwahili tends to be dominant, some informants tended to forget some words more readily than others. How would one treat such cases of frequent and long silences? Would one engage other competent speakers or would one just continue with many biank spaces left in the questionnaires as a consequence? Blank spaces therefore sometimes imply that no item was found in the language, while it might in fact only mean that the informant forgot it and there was no time to go back to record the recalled word

### 1.3.4.3 An informant refusing to answer some questions

For cultural reasons, understandably, some informants refused to tell a word because it was a taboo and embarrassing. For words like 'testicle, sperm, sexual intercourse, and penis', euphemisms were used instead of the referential ones expected. Respectively, the euphemisms favoured included equivalent metaphors like 'bells' (testicles), 'water of males' (sperm). 'sleeping' (sexual intercourse)

### 1.3.4.4 Desirability of trilingual speakers

This requirement was the most desirable since some words were only clearer even to the researcher if they were explained in both KiSwahili and English so as to be translated by the informant in his/her third language. For instance, some of the palm trees mentioned in the questionnaire were not known to the researcher himself in all the languages he knew. In other
cases the KiSwahili word was different in meaning from the English gioss. For instance, while the entry for KiSwahili was ndezi as particular kind of rat, for English it was only kind of rat: On its own, that English noun phrase was almost meaningless because any type of rat fitted. When asked by the informants to be specific, the researcher himself did not know which rat was being talked about. Another example had chungu in KiSwahili and 'small ant' in English. The English gloss was again almost meaningless because there are many types of small ants. In addition, chungu also means 'bitter', or 'heap' in KiSwahili. So informants reading one gloss only would respond differently from both those who preferred the other language. or who used both.

Sometimes words could not have equivalents in both the ethnic variety and KiSwahili, although it might be clear in English, and vice versa. For instance number" is muongro, or mutongo in KiSwahili. But that word is no longer used in KiSwahili, and many lanyuages have no such word. A monolingual informant would not grasp what the researcher was talking about in such cases.

With the names of mammals and birds especially, most informants were not sure which animal or bird was being referred to, because most of the informants had never physically seen the animals, while others have seen them, but were not sure which name to attach to which animal. To save face and to appear committed to the interview, some informants did not like to admit that they did not know They said something, sometimes so obviously unacceptable
even to the researcher who spoke a different language because of having some understanding of some of the common names, that it was almost funny. This reflects what Whybrow (1948:56) observed when he was compiling a list of bird names in ßùsukumà (Sukumaland):

There is rather a tendency for Sukuma, and doubtiess other tribesmen, to invent names on the spur of the moment for the sake of pleasing the enquirer. A regular informant is soon cured of this, but one must be on guard with the casual.

## I.3.4.5 Rejection of some words during data revision

The original data used in this study were taken from 12 language varieties. The second version included ten more which were obtained by differentiating the varieties within groups originally represented with fewer members or viewed as mono-dialectal as in KìnìLaämba (two additional dialects). KìKímbè̀ (one additional variety), SiSuúmbwà (two more varieties), and KìNyàmwézi (three more varieties). While KìRìmi had originally two varieties, another was added. On the other hand one variety was completely new to the list. and this was iCiWùv̀ngù

The major problem in this revision and update exercise was that some words found in the original list were rejected as alien in the informant's language. In other cases, some new words were added, while in other instances the words expected were not known in the language (at least to the informant). Since the original data did not include tones, the whole original list was not incorporated into the new one apart from its use during elicitation and confirmation of whether a word was availabie for the concept being asked, or whether the earlier words supplied were acceptable. Surprisingly, some of the words were rejected as
improper, either because they did not belong to the language, or their meanings were simply wrong. But this alone did not guarantee that all the new words were acceptable in the contexts given. Thus, caution is to be exercised while analysing the words, for errors of choice by informant, perception and recording by the researcher might show up in the data and skew or taint the results

### 1.3.5 The methods

The comparative method was employed in Chapter 3 in analysing the phonological development of SSN and Zone F generally. Part of Chapter 4 employed lexicostatistics in establishing the internal relationships within SSN and Zone F as a quantitative measure, while the remaining part used the comparative method again to trace the qualitative similarities and differences in the target varieties and surrounding languages of eastern Africa.

### 1.3.5.1 The comparative methord

### 1.3.5.1.1 The procedures of the comparative method

The comparative method in Bantu was first applied consistently and to a large scale by Bleek. Meinhof. Dempwolf, Bourquin and Greenberg. Guthrie (1962a. 1967-71. 1970) acknowledges those predecessors generally for their inspiration in his own work in Bantu (Guthrie 1962a:2). Others who followed the pioneers elaborated and continued to refine and apply the method, for example, Lestrade (1948), Meeussen (1973), Bynon and Mann (1973), Nurse and Hinnebusch (1993), Nurse 1999), among others. As Meinhof himself had
said when utifizing the method, it is applied as it had worked in Indo-European languages (Meinhof 1932:21, Guthrie 1962a:2)

Guthrie (1962a.4-23) characterizes his version of the procedure as involving two stages. as Meeussen (1973:16-18) also elaborates:
(a) Every rule formulated is to be free from exceptions.
(i) comparative series. setting up completely regular sound correspondences.
(ii) starred forms: symbolizing the proto-phonemes to represent the sound correspondences obtained in (i) as underlying forms, (although strictly speaking, protoforms are not underlying forms, although they are often identical).

This can be illustrated from Zone $F$, thus:
(1) ashes *-bu

| F2la i- $\beta$ úmá- $\beta$ ù | F23a mà-vu | F3la ma-ù | F34 yu-u |
| :---: | :---: | :---: | :---: |
| F2/b- $\beta$ ü/mà- $\beta$ ŭ | F23b i-vu/mà-vu | F31b mà-u | F33 ìvu |
| F2Ic ì- $\beta$ ü/ma- $\beta$ ù | F23c i-zu/mà-zu | F3Ic mà-u |  |
| F22b i- $\beta \mathrm{u} / \mathrm{ma}-\beta \mathrm{u}$ | 24 b ma-u | F32a mà-u | F10 (i/ma-füundu) |
| F22d i-vú/mà-vú | 24a mà-ù | F32b má-u | F22a (ma-tüunde) |
| F22e i-wu/mà-wú |  | F32c mà-u | F25 (i-twitwi) |

(b) from the cognates obtained in (a) by the sound correspondences, it is possible to assign phonetic values to the proto-phonemes and classify the comparative series into well-detined categories of reconstructions, although this assignment is not easy

### 1.3.5.1.2 The ctims of the comparaive method

As can be observed from the brief description of the comparative method, the aims of the procedure are to establish genetic relationships between languages claimed to descend from a single ancestor. This assumes that languages are monogenetic. Guthrie (1970:23) himself was aware of this monogenetic assumption of the method as he aptly points out

> It is the total collection of material of this kind that gives rise to the presumption of some kind of genealogical relationship amony the various Bantu languages, but it would be an oversimplification of the problem to decide outright that therefore all the Bantu languages should be treated as direct descendants of a single ancestor language. It may not be out of place here to consider for a moment the signiticance of a family tree as a representation of the inferred prehistorical development of various languages from a common ancestor. Sometimes several languages are shown as all being gencalogically related to a single parent language, but this could in fact be a considerable oversimplification. [Emphasis added].

With this caution sounded by Guthrie in mind, it is only becoming to look at the limitations of the comparative method, albeit very briefly.

### 1.3.5.1.3 Limitations of comparative reconstruction

Like all methods in both natural and social sciences, the comparative method does not represent a panacea in historical and comparative lingsistics, able to handle all questions of application and interpretation arising theoretically or in the field in relation to Bantu, and
indeed, to linguistics in general. While the method is practical and useful, criticisms relate to both the method itself and the interpretation of the results obtained through it. With regard to method, its application depends to a large extent on earlier data of a language in order to ascertain the validity of the reconstructions In oral cultures like most of Bantu, such earlier, written forms of language are absent, and therefore applying the method is relatively more difficult and challenging. In addition, for the method to succeed, it requires quality data of enough quantity in order to obtain reliable and valid results. But this could be said of any method.

Secondly, interpretation of the results obtained through the method may be difficult because an accurate, historical interpretation requires, as a precondition, sound assumptions about the nature of language, language change, historical processes and human agency, including all the factors affecting that combination of phenomena.

Thirdly, there is considerable debate which has continued for years about the relative role of inheritance versus language contact/convergence in explaining current situations in languages. The comparative method cannot address language contact because it favours monogenetic treatment of data. The method only handles some type of data, and leaves the rest. If one allows for the existence of dialects in languages, then proto languages should not be an exception. This implies that, it is one method among several rather than being the method. It is useful without being perfect, like lexicostatistics, its efficiency in application being only
relative

### 1.3.5.2 Lexicostatisfica/Glottochronology ${ }^{10}$

### 1.3.5.2.1 Overvien of lexicostatistics:

This overview considers the criticisms against lexicostatistics and the reasons why it has been used despite those criticisms, and hence warranting this lengthy treatment. Some excellent literature exists in the field of lexicostatistics (and glottochronology) dealing with both its theory and practice, either in its support, neutral application or criticism as in all scientific endeavors Among these are Swadesh $(1950,1955)$ who first popularized the method. Fairbanks (1955), Gudschinsky (1955, 1956). Kroeber (1955). Taylor and Rouse (1955). Hymes (1960a, 1960b, 1964); Amstrong (1962), Bergsland and Vogt (1962), Grace (1964). Dyen(1965. 1975), Henrici(1970). McElhanon (1970), Hinnebusch(1976. 1999). Nurse and Philippson (1980a), Schadeberg (1986), Embleton (1986), Dyen, Kruskal and Black (1992). Ross (1998), Ehret (2000), among others.

In the earliest stages of the method, lexicostatistics and glottochronology were used interchangeably. While lexicostatistics is the statistical study of a restricted vocabulary in two or more languages for historical inference and/or relative chronology, glottochronology is the same thing, but only estimates exact time depths between a pair of languages or groups

[^5]as a measure of absolute chronology, for historical inference (Hymes 1960a:4, Hinnebusch 1999:174). The focus in this study is lexicostatistics, while the application of glottochronology is also attempted to test the lexicostatistical results, since lexicostatistics is a process which gives output to be used by glottochronology as its input. That is. glottochronology is a technique of dating the nodes of shared vocabulary generated by lexicostatistics. As can be seen, the connection between the two is inevitable and important in many ways.

In its evolution, glottochronology (at the time) or lexicostatistics as it became to be known later. was inspired by Carbon $14\left(\mathrm{C}^{1+}\right)$ dating technology (Gudschinsky 1956:1. Embleton 1986.43, Hock and Joseph 1996:531). The method uses a formula which has been refined over the years, as shown in (2), where $t$, expressed in millennia. is elapsed time since? languages that are compared separated, $C$ is the percentage of the shared cognates between the compared languages, and $r$ is the standard rate of core vocabulary retention per 1,000 years. or the index. recommended at $86 \%$ in a 100 -word list and $81 \%$ ( $80.5 \%$ ) in a 200 -word list (Swadesh 1950 158. Embleton 1986:49).

Since many of the support of and/or objections to the reliability and validity of the results of glottochronology and hence lexicostatistics are based on the assumptions of $\mathrm{C}^{14}$ and the above formula, it is essential to provide four assumptions here as aptly summarized by Gudschinsky (1956:177-8).
(a) Basic core vocabulary is assumed to be less subject to change than other types.
(b) The rate of retention in basic core vocabulary is constant through time, (although no evidence was provided to substantiate that claim (Kroeber 1955:91)),
(c) The rate of loss of basic vocabulary is approximately the same in all languages (11 Indo European and 2 other language family test languages were used to arrive at that generalization):
(d) A known percentage of shared vocabulary between two languages can yield the length of time that has elapsed since their divergence from their common ancestor, provided that there was no interference through migrations, conquests, or other social contacts with other speech communities which would slow or speed up the divergence.

With that scenario, it makes sense now to examine some of the comments which have been made concerning the application and interpretation of the results of lexicostatistics and glottochronology. This helps in appreciating the merits and shortcomings of the method by avoiding exaggerating its shortcomings or undermining its usefulness

On the one hand, lexicostatistics has been adequately applied to SSN and Zone F languages by Nurse (1979a, 1979b). Nurse and Philippson (1980a). In those studies. one finds patterns of linguistic groupings which do not depart very much from the results of other more traditional methods. Such corroboration indicates that lexicostatistics does indeed work and is useful in internal classification where relatedness is shown clearly among members of a subgroup (Nurse 1997:364). To put this in perspective, the criticisms put forward against lexicostatistics are discussed first. There then follows a justification for using this method in this study despite such strong criticisms, indicating that we are aware of the problems.

### 1.3.5.2.2 Argunnents against lexicostatistics

Many scholars see both sides of the coin in judging the method by giving credit where it is due, without failing to point out any weaknesses. Some take one stand only. for or against the method. For instance, while recognizing the usefulness of the method, Nurse (1997:3646) directs some specific criticisms against lexicostatistics, and four are more serious because they concern the method itself rather than how it is applied:
(a) the method does not clearly distinguish true cognates from mere resemblances. but depends on how an individual researcher recognizes and excludes non-cognates.
(b) it forces binary splits even when a three split might be more appropriate.
(c) it allows geographically proximate languages to behave lexicostatistically similar as if they are genetic relatives even when they are not (Henrici 1970:89-91) and
(d) there is no agreed upon cut-off percentage for languages to be classified as daughters of a proto language

Apart from those specific problems, more general shortcomings of lexicostatistics were recognized early by Swadesh himself and many others when they were dealing with linguistic dating (Swadesh 1950. 1955; Taylor and Rouse 1955). The problems relate to both the quality of the data and the mathematical derivation and hence mechanism of the method itself

Both the data and method undermine the basic assumptions of lexicostatistics in significant ways, which in $\mathrm{C}^{12}$ terms, introduce contamination in the linguistic samples. Among these weaknesses include inaccurate transcription of the phonetics of the vocabulary collected: errors in translations which result in unexpected meanings; the absence of worked out phonological systems as a chech for errors; and over-or -underestimation of time depths, etc. For some linguists, such shortcomings are unwelcome, justifying a rejection of the whole enterprise as unredeemably hopeless. In this scenario, the method is dismissed as unfit of serious attention because of its many misleading errors.

For instance, Bergsland and Vogt (1960:125-9) represent the skeptical school which views the reliance on the method to calculate time depths as premature duc to the vagueness of the procedure. To prove their point, they point out that basic vocabulary does not change at a constant rate: a few vocabulary items in a few languages cannot be generalized to human language as a whole, and a study of vocabulary was more complex than glottochronology
could handle. The controversy is summarized well by Embleton (1986) Dixon (1997 4, and footnote), gives a verdict that lexicostatistics was a short cut which failed and was discredited because it was based on illicit assumptions like uniform replacement of vocabulary, or that core and non-core lexemes behaved differently. Dixon concludes that the method has already been discarded by serious linguists. Similarly, Hock and Joseph (1996.530-31) dismiss the method as unreliable because it depends on interpretation rather than facts alone. In addition. its findings are often disconfirmed by empirical evidence.

Another criticism is the argument of forcing statistical or mathematical precision in a social science like linguistics in an attempt to make it a respectable discipline deserving attention like those in the natural sciences.

While the twin methods are different in their aims, the attack on glottochronology was especially encouraged by its association with lexicostatistics. The terms were sometimes used synonymously, although a distinction between them is clear, namely that glottochronology deals with an absolute measure between points $A$ and $B$ of language development while lexicostatistics' value is relative. It was that absolute measure that drew the most criticism because in known cases, the margin of error was so vast that many linguists doubted it, while others rejected the method as flawed in its mathematical assumptions (Bergsland and Vogt (1962): Grace (1964:64-5). Herbert and Huffman (1993:64). For instance. Armstrong (1962 284-5) shares the same sentiments about glottochronology in its tendency to
underestimate the time depths being considered. Armstrong argues that it is difficult and controversial to determine the rate of change of basic vocabulary and prove empirically that it is the same for all languages. In addition, it is tricky to assume that because a few languages with written records changed at a certain pace in a certain number of centuries, therefore their rate of change was the same during their past unwritten period. Rather it is the case that such a rate cannot be uniform for all other languages in all places in the world in all millennia. While appreciating the merits of the method for its immense value, he also acknowledges that glottochronology is a speculative and hazardous intellectual venture whose results and methods are not satisfactory

Overall. most of the criticisms which dismiss lexicostatistics completely tail to appreciate the fact that almost all scientific methodologies, while proven to be practical, have their drawbacks. Instead of rejecting lexicostatistics out of hand. some latitude can be usefully allowed as better ways are searched to perfect the method, as a core of the evolution of science. Fair criticism. therefore, implies not only the recognition of the weaknesses of a method, but it also involves an appreciation of its practical utility, since, as in the case of lexicostatistics, there is ample room for improvement. That benefit of doubt has not been granted fully by trying the method on many languages, as the following school of thought suggests

### 1.3.5.2.3 Merits of lexicostatistics

From earlier on, such usefuiness of lexicostatistics was appreciated by many linguists (Swadesh (1955), Gudschinsky (1956), Hymes (1960a, 1960b, 1964); Henrici (1970), Hinnebusch (1976, 1999), Schadeberg (1986), Embleton (1986), Renfrew (1997), Nurse (1999) and Ehret (2000)) who view the enterprise as practical enough since no method is perfect and cannot be used aione as a panacea for providing all the solutions to all problems. For instance, Hymes (1960a,b) recognizes and discusses many problems, starting with the test list itself which had mainly Indo European words at first, some of which were found irrelevant in some non-Indo European languages, the control cases were not satisfactory since most had no earlier documentation; the retention rate was doubtful, since the lists used are normally not identical in terms of vocabulary items and length, with the 100 and 200 word-lists giving different retention rates; the statistics and mathematics are based on assumptions which are only hypotheses, giving even more hypothetical results since the rates of lexical change, for instance. are not known in the majority of world languages. He concludes that there is room for improvement.

Although Ross (1998 142) points out that glottochronology as a direct application of lexicostatistical output is unreliable in many languages, in the rare cases of languages like those of Polynesia, the twin methods work quite well because the languages were almost isolated from contact with other languages outside their family

Hinnebusch (1999.177) commends another advantage of the method, that of providing evidence for contact, apart from determining levels of retention alone. Similarity between language varieties cannot be by genetic affiliation from a proto-language alone. It can also be due to borrowing through contact and lexicostatistics can show that.

In most of Africa where the dating of prehistorical events is difficult, the questions raised against glottochronology become important. Many dates have been suggested for the ages of artefacts and events in Africa, but the major contention revolves around the methods of dating them and the assumptions inherent in those methods. The methodological problems of dating archaeological artefacts and establishing time periods and sequences for them is a major problem where there is no evidence of written records of dates attached to them Hence, in this study, absolute chronologies in linguistics. history and archaeology are approached cautiously since the dating techniques are not reliable.

## $1.3 .5 .2+$ Merios of lexicositatisticis: a summary

All methods are essentially hypotheses trying to account for something which is unknown Their chances of success are only matters of degree and preference rather than absolute dichotomies of right and wrong. They only aim at as objective truth and as reasonable success in providing answers as possible.

For instance, the comparative method as a practical enterprise has its own serious problems,
although it has been used for years. Because languages do not exist in a vacuum, its monogenetic implication is detinitely tlawed. In real life, languages are spoken by people and speech communities in constant interaction, and total isolation is an exception than the rule. For instance. Indo European is only one intermediate node in the linguistic tree of its ancestors, Nostratic. Even Nostratic did not exist alone. There were other languages influencing it. Although this might sound speculative, the scenario of language contact in prehistory is not handled well by the comparative method.

In addition. lexicostatistics suffers from lack of engaged evaluation from most of the linguists themselves. The mathematics involved in the lexicostatistics formula deals with advanced probability theory which for many linguists is not their area of competence. The result is continued reliance on the judgement of others, which is not always accurate either. For instance, Embleton (1986:62) points out that the criticisms by Chrestien (1962) were known by statisticians and mathematicians to be flawed, but those statisticians and mathematicians could not contribute to the debate because they were not certain what linguistic arguments were involved in that formula. A team of individuals each trained as a linguist, programmer, statistician and mathematician could do a better job by researching the area over a period of time.

The bottom-line with lexicostatistics is that some particular methodologies like the comparative method tend to be privileged even when they have their limitations, while equally
promising ones tend to be dismissed because they remain 'new' tor lach of wider application and continual improvement.

### 1.3.5.3. Other methods

As hinted earlier. a method like mass comparison is not used in this study. One reason is that mass comparison, for instance, best suits analyses at macro-, rather than at micro-level where dialects are compared, as in this study. By using mass comparison whereby the vocabulary and morphology of many languages are compared to determine similarities, Greenberg (1963) succeeded in drawing up a convincing taxonomy of the four language phyla then predominant in Africa, namely, Khoisan, Afro-Asiatic, Nilo-Saharan and NigerCongo

The methods used in archaeology and which furnish evidence of chronology, pose a special challenge in many societies in Africa. The evolution of human societies in the past relied on harmony with nature where the environment was rarely altered. In such cases, no traces could be found of any artefact. This implies that dating has a long way to go in prehistoric studies. but especially in societies which left no objects to fall back on when all else failed. But also, the age of human existence tends to be underestimated and linguists and historians alike talk of Bantu migrations and expansion in terms of a few hundred years ago based on material objects found on the ground. Such objects depend on human agency, and when they are not made, then any dating relying on them fails. The absence of such finds tells us nothing
of the history of the people living there except that they did not alter nature or leave their implements. Gathering societies which depend solely on plants and insects for their livelihood may leave no trace of their activities. Many Bantu societies might have lived in such an environment of abundant natural resources for an unknown number of centuries.

### 1.4 CHAPTER PREVIEW

The rest of the chapters in this study are arranged with the following content. Chapter 2 contains the literature survey, including overviews, that of the linguistic research undertaken in the area and the theoretical framework. The linguistic component surveys three areas: phonology, lexical analysis and classification in SSN and Zone F. The major theoretical framework adopted is the contact modeis of language development as suggested by Thomason and Kaufman (1988), along with the farmily tree model.

Chapter 3 maps the phonological development of Zone F generally, and SSN in particular. and finally, attempts a historical interpretation of the linguistic patterns, especially the chronology of the phonological processes defining the linguistic groups in the target languages. Chapter 4 maps the development of lexis, looking into quantitative and qualitative evidence for Zone F and SSN, while Chapter 5 concludes the study by symthesizing the foregoing. It also makes final observations, recommendations, and points out avenues for further research. looking briefly at language as a tool of history in the area.

## CHAPTER TWO

## LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

### 2.0 INTRODUCTION

This survey of the literature reviews what has been written about $\operatorname{SSN}$. Zone F and where relevant, Bantu in general. In particular, it focuses on what has been done in phonology and lexis. In phonology, it reviews work done on $\mathrm{BS}, 7>5$, DL as major areas, and glottalization and voiceless nasai formation as minor processes, especially within SSN With respect to the lexicon, lexicostatistics and its classificatory results are discussed in relation to the role of the method as an ordering tool where there is still taxonomic chaos due to the sometimes enormous knowledge gaps in Bantu studies. Finally, classification in SSN and Zone F generally is examined as it relates both to our phonological and lexical focus, as well as to other criteria used by other scholars. The aim of this chapter, therefore, is to see what is known about the area with regard to what has been done and its merit: what criticisms can be levelled against that knowledge; where the contribution of this thesis fits in, and therefore why the work is worth doing.

### 2.1 LITERATURE REVIEW

### 2.1.1 Bantu, Zone F and SSN linguistic descriptions

From the pioneers of Bantu linguistics like Bleek (1862-9) and Meinhof (1932), the major work on Bantu comparison and classification is represented by two undertakings, the seminal work of Guthrie (1967-71). on which Nurse (1979b:43) states supersedes all previous work. and Meeussen (1980). Guthrie makes a referential classification of the majority of the Bantu
languages based on phonological, grammatical, and lexical criteria by listing all known Bantu languages and their dialects. He goes on to reconstruct about 2300 Bantu roots (Guthrie1962b 274, 1962c:13). Meeussen, on his part, reconstructs about 1200 Bantu roots. Following in the footsteps of these two, many historical linguists have compared several languages and language groups, mainly using vocabulary, verbal morphemes and phonological systems. although they have not attempted any work of reconstruction of the magnitude of Guthrie and Meeussen. For an overview of the evolution of Bantu scholarship. especially on classitication, see Nurse (1995) who summarizes the achievements attained so far, especially by Henrici (1973), Heine (1973), Möhlig (1981), Bastin (1983), Coupez, Mann and Vansina (was in progress'), and Ehret (1994). He gives a critique of each work, and then identifies the work required to be done in the future to fill the gaps observed in those works, pointing out five areas, four of which are relevant here (Nurse 1995:71-3)

First. Nurse says. linguists should obtain good quality data of sufficient quantity rather than continuing with the prevailing practice of using incomplete and inadequate information to make global generalizations. This aim has not been realized yet in fuil, since the data used are still mainly second-hand, often collected many years ago when transcription was not yet fully standardized and knowledge of Bantu was still generally poor. This fact is illustrated by the case of Bantu Spirantization or Dahl's Law, in which some languages are said to have those processes, when in fact they do not. This is addressed fully in Chapter 3

[^6]Secondly, new approaches not based on lexicostatistics were needed to tackle intermediate levels of Bantu instead of concentrating on the lowest and highest, at dialect and Proto-Bantu stages respectively. These new approaches would then be compared with the results of other methods like lexicostatistics. This recommendation has not been realized too. One problem here is that the majority of the lower level dialects have not been subjected to lexicostatistics to establish their internal relationships so as to move to the intermediate levels with solid lower level linguistic cohesion and grouping. Normally, one dialect was taken to represent two or more dialects, as in the case of KINyamweezi or SiSuumbwa. Without proper analysis of all dialects, it is impossible to have accurate information on the intermediate levels. This study tries to address precisely that, using lexicostatistics.

Thirdly, linguists and other scholars working in different areas of Bantu needed to cooperate so as to simplify such a daunting task as Bantu research. Working in isolation led to duplication and dissipation of effort and slowing of new knowledge generation. This recommendation has seen a lot of activity, one example being the revision of Guthrie s coding system with a view to improving it by incorporating excluded languages and their varieties:

And finally, Nurse also recommends that those interested in Bantu linguistics be multidisciplinary in their approach in order to be informed of how other related fields view and use their disciplines. As we have observed in 1.3.5.2.4, a multi-disciplinary approach in linguistics will go a long way in areas like evaluating effectively methods like lexicostatistics

[^7]which are not linguistic in nature but which linguists find quite useful

With that scenario in mind, a survey of some relevant work is in order here. The earliest classification of Bantu as a big, unified group was most likely the work started by Dr Peters who collected some vocabularies and gave them to Dr Bleek in 1852. For his part, Bleek, who was trained in Indo-European philology, studied these manuscripts, translated. edited and published them (Meinhof 1932:21, Doke 1959.26). That was the beginning of the term "Bantu" and the study of the language group using purely linguistic criteria. Bleek had isolated 18 noun classes of Bantu nouns, spurring other linguists to classify the various members of the group into patterns of similar sub-groups, including Zone F and SSN

Most of the work done in the Zone F languages has been mainly synchronic, that is, as they are spoken at a given single point in time. The work has been general, describing the grammar, vocabulary and sound systems of individual languages or their individual varieties rather than analysing all varieties comparatively. For some of these varieties, the lack of linguistic scholarship in this regard still continues since they are only mentioned, and in many cases some are not even mentioned ${ }^{3}$

[^8]In all the languages studied, most of the word lists were compiled by missionaries and adventurers who were language enthusiasts keen on obtaining quick, practical results rather than elaborately accurate phonological descriptions of trained philologists. Hence they cut comers, approximating what they saw and heard to what they already knew, without any rigorous method of systematic categorization. Doke (1959:1-2) also points out that few of these travellers had any real ability in correct observation and recording, and most of their records were only interesting relics of no philological value. With such compilations, one would normally only find some bits and pieces of linguistic description, reconstruction. classification and historical interpretation done amateurishly. Among others, this linguistic work has included the following, shown in Table 2.1

Tahle 2. I Work done in Zome F lauguages

| Language | Author | Area | Focus |
| :--- | :--- | :--- | :--- |
| F21 | Richardson (1959) | phonology-tone | JinȧKir̀yã |
|  | Richardson and Mann <br> $(1967)$ | vocabulary list | Jinàkiìyâ |
|  | Masesa (1978) | verbal morphology | Kimunadakamá |

F21
( (..continued)
(1980) lists fourteen sources for KíSükủmà since 1945, six of which are typewritten manuscripts. Most of these manuscripts are not dated. do not show place of composition and are written anonymously. Reviewing publications in F23, Kahigi (1988:0,7) comments that, like all Bantu languages, F23 does not have a long written tradition as a starting point, as is the case with other language groups like Proto Indo-European and its daughter languages. The earliest published record for F23 is that of Last (1885), a collection of several Bantu language vocabularies, including that of F23, with a 250 word list
${ }^{4}$ Masesa does not indicate the exact location of this dialect, although by the examples (continued..)

| Language | Author | Area | Focus |
| :---: | :---: | :---: | :---: |
|  | Goldsmith (1985) | phonology, tone | KimùnàSükùrnà? |
|  | Batibo (1985) | morphology and phonotogy | Kimunasüküma |
|  | Yukawa (1989) | tonological | General F21 ${ }^{\text {s }}$ |
|  | Maddieson (1991) | voiceless nasals ('aspirated' nasals) | KimúnáSukurmà |
|  | Batibo (1991a, 1991b | phonology, tone | Kimunas ${ }^{\text {unkürnà }}$ |
|  | Masele (1993) | phonetics, voiceless nasais | JinàKi̇̀yâ |
|  | Masele (1996) | phonology, homorganic voiceless nasals | JináKǐyâ |
|  | Masele (2000) | phonology, tone | JinȧKì̛yâ |
| F22 | Maganga and Schadeberg (1992) | grammar, vocabulary and phonology | KinNyȧmwéezi or KiDàkama? |
|  | Silanda (1978) | phonology | KǐKónȯȯngò |
|  | $\begin{aligned} & \text { Schadeberg (1991 } \\ & \text { 1994) } \end{aligned}$ | phonology, high tone | KìNyảmwéėzi general? |
| F23 | Kanigi (1977, 1988) | phonology | Lunzewe (F23a) |
| F32 | Oison (1964) | phonology, morphology | GîRwànà |
|  | Schadeberg (1979) | phonology, nominal tones | KiRimi general? |
| Zone F | Nurse (1979a) | syntax, morphoiogy, phonology | $\begin{aligned} & \text { F21, F22, F23, F31, } \\ & \text { F32 } \end{aligned}$ |
|  | Nurse and Philippson (1980a) | lexicostatistical | $\begin{aligned} & \text { F21, F22. F23, F24. } \\ & \text { F31, F32. F33 } \end{aligned}$ |
| Bantu | Meinhof (1899/1932) | phonology, lexis | Sample Bantu |

${ }^{4}$ ( $\ldots$ continued)
he gives, his Kìmu̇nảdảkảmà is our JinảKì̀yà which adjoins our Kìmunadakàmà, and his JinaKììyà our Gìnantuzu. This is the problem of directional names which only indicate position relative to speaker's/writer's location.
${ }^{5}$ General F21 or any other language refers to a situation where an author did not explicitly say what dialect s/he was analyzing, or when we are not sure which dialect

### 2.1.2 Phonological studies

### 2.1.2.1 Bantu Spirantization (BS) and $7>5^{6}$

Bantu Spirantization is a weakening process in some Bantu languages whereby plosive consonants change into spirants before the superclose PB * $i$ and * $y$ vowels, making their reflexes different from reflexes of plosives in other vowel environments [-superclose]. Hinnebusch, Nurse and Mould (1981:17), Nurse (1988:29) suggest that BS was only beginning in F21 and F22 because of the evidence of both complete and incomplete forms of BS being attested in words, in addition to the strong 7 vowel system, indicative of an ongoing process. But Nurse (1999-21), while sure about the absence of BS in F24, F31, F32, states that the evidence is ambiguous in F21/F22. This observation of indeterminate BS in F21/F22 is also made by Batibo (2000:25-26) who suggests that BS has become inactive, although it operated in the past. Since the observations made so far are based on general data from these languages, this study examines the details in the individual dialects to determine to what extent these observations are true. whether there is ongoing BS. inactive BS. or ambiguous BS in F21/F22. for example. Some of these statements are confusing and contradictory since they refer to the same phenomenon in the same languages. What do such differing observations mean historically, especially when innovations like BS co-exist with 7 V systems?

Using Guthrie's inventory, Schadeberg (1995:83) surveyed representative languages from all Bantu zones. In Zone F. 4 languages were selected: F10, F21. F31, and F33. His results

[^9]indicate that F31 has neither BS nor $7>5$, while F10 has both. On the other hand, F21 and F33 do not show $7>5$, but they have BS. Since Schadeberg's concern was a summary of a general area, he did not go into the details of each individual language to examine how the twin processes worked. In addition, only a few Zone F languages were used. and only one of the three from SSN. The work therefore offers a challenge to explore BS details in all Zone F languages to determine how the results of the 4 languages used by Schadeberg can be generalized for Zone F or SSN

On her part, Labroussi (1999) mentions the case of F25 which shows clear BS with some words in the same environment failing to undergo BS. This casts doubts on whether F25 has real BS or some other process mimicking BS. Another doubt cast is the status of the vowel inventory: while the young informant shows a 5 -vowel system, the older informant indicates clear 7V. Labroussi (1999:370) then concludes that, F25 has a conservative 7V system, adding that it is an abnormal pattern of BS in an innovative language needing an explanation. This might possibly be a result of contact with BS languages. Such uncertainty of BS in F25. as elsewhere in Zone F is a good reason to re-examine Labroussi's conclusions, which may cast crucial light on BS in the rest of Zone F vis-à-vis the observations made by the studies mentioned above.

### 2.1.2.2 Dahl's Lav (DL)

Dahl's Law is a dissimilation process of two adjacent syllables with voiceless obstruent onsets in a root, found in some eastern Bantu languages, whereby, the first obstruent, usually a
plosive, becomes voiced, as in $\mathrm{PB}^{*}$-kopa $\rightarrow$ F2 lc /-gopa/ borrow'. It is realized differently by different languages, as explored fully in Chapter 3. According to Nurse (1999:20-21), DL is found in six groups in eastern Bantu. The codes in brackets indicate the rough individual groups involved according to Guthrie's zones: Proto Central Kenya (E46, E50), Proto Kilimanjaro-Taita (E60, E74), Proto Great Lakes (D40, DJ50, DJ60. EJ10, EJ20, EJ30. EJ40), Proto Northeast coast (NEC) (G10, G20, G30, G40, parts of E70), Proto West Tanzania (Zone F), and Proto Southern Tanzania Highlands (G60, NIt). In Zone F. some languages have DL, others have none. For instance, in F24, F31, F32, F33, there are no traces; in F23, there are limited traces, while in F21/F22 there are many traces (Nurse 1979b:422). Those with no DL pose no immediate problem. It is F21/F22 and F23 which form SSN that are interesting. In our preliminary data, most of F22 shows doubtful DL or none at all, except in loans. However, Maganga and Schadeberg (1992 23) suggest that DL in F 22 (KINyamweezi) is almost exceptionless. On the other hand, our data suggest that F 23 does not have DL except in a few loanwords (See Appendix 3). In light of these inconsistent reports, the examination of all dialects within Zone F, but especially in SSN hopes to clarify the fuzzy picture of DL in the area and aid in a more robust fashion the classification of the language varieties.

### 2.1.2.3 Glotalization

Glottalization as a change of $\mathrm{PB}{ }^{*} \mathrm{P}$ to $/ \mathrm{h} / \mathrm{in}$ many Bantu languages is not significant on its own. Its importance lies with regard to SSN when one finds retlexes of PB *p being both/p/ and $/ h /$, which is a marked situation. Addressing this situation, Batibo (2000:27-8) observes
that glottalization has ceased to be active in $\mathrm{F} 21 / 22$, with /p/ becoming more widely distributed than /h/. Like BS and DL, the inactivity of glottalization suggests two scenarios: on-going process or the presence of loans (Batibo:ibid). Such indeterminacy needs clarification by examination of the various dialects as proposed by this study.

### 2.1.2.4 Voiccless nasal formation

Within Zone F, only F21 and F22 display this feature Voiceless nasals $/ \mathrm{m}, \mathrm{n}, \mathrm{\rho}, \dot{\mathrm{~g}} /$ are in opposition with their voiced nasal counterparts $/ \mathrm{m}, \mathrm{n}, \Omega, \mathrm{n} /$. The evolution of these voiceless nasals seems to have first started as pre-nasalized consonants $/ \mathrm{mp}, \mathrm{nt}, \mathrm{nc}, \mathrm{nk} /$ respectively With time, they were phonologized so that they are now phonemes which can be contrasted with both the plosives and voiced nasals. The voiceless nasals from KimunaSukuma are discussed in Maddieson 1991 and from JinaKirya in Masele (1993, 1996). Some examples are shown in Tahle 2.2, with contrastive minimal pairs or similar words with voiced nasals where available. The tones given are underlying for each word, low where tones are not marked.

Tahle 2.2 Voiceless masals in F2/c

| m | $!$ | ग | , |
| :---: | :---: | :---: | :---: |
| naamală 'old man | muunv 'person' | muuñă 'maiden' | Igoono 'etched log' |
| m̧elă 'rhinoceros' -melá $v$ 'tease | niga 'giraffe' <br> -niga 'strangle' | Baajhâ 'female proper name | ற!Indá 'bell' ற̣ïndà cudj 'half full' |
| -Iguuma $v$ ' 'trip' | -daana 'climb \& creep' | -nuuğa $v t$ 'smell' | -nuug̃a vi 'smell' |

Our preliminary results suggest that it is only $\mathbf{F} 21$ and F 22 b which have voiceless nasals, while the core dialects of F22 and F23 do not. This distribution within F21/E22 prompts a closer look, since DL also seems to follow the same pattern, where only F21/F22b are involved fully. Maganga and Schadeberg (1992:16-7) do not say whether these voiceless nasals are also found in all the KINyamweezi dialects. This study makes that distinction clear by noting the behaviour of each individual variety.

By combining these phonological processes: $\mathrm{BS}, 7>5$, DL, glottalization and voiceless nasal formation in SSN and Zone F from the dialects, it is hoped that some concrete classitication can be suggested, especially if it departs from the current aftiliations.

### 2.1.3. Lexical studies

In this area, it is the seminal work by Nurse (1979a, 1979) and Nurse and Philippson (1980a. 1980b) which feature prominently. These studies employed lexicostatistics to analyse broader coverage of eastern Bantu languages. including Zone F and SSN.

Among these, Nurse and Philippson (1980a) is the most relevant. In this study a 400 wordlist was used. and 76 languages/dialects were compared for both internal and external relationships. Inter- and intra-zone comparisons were made, and the results for Zone F were as follows: Zone F without KiiRangi was a strong unit, although when Kiirangit was added,

[^10]it became weak because of the distant relationship. The zone (which they called West Tanzania) divided into two F21,F22, and F23 on the one hand, and F24, F31 and F32 on the other. Of these. F21/F22 formed the strongest unity, prompting Nurse and Philippson (1980a:48) to state confidently that they were 'dialects' of one language. In the other group. F24 displayed interference from West Ruvu (G10 and G39), while F31 and F32 were closer. forming another unit.

On the other hand, there were some problems of internal cohesion. For instance. F23 (SiSuumbwa) did not fit quite well within F21/F22, since its shared vocabulary percentage was higher with both DJ60 and EI20 than it was with any of the Zone F languages to which F23 was purported to belong. The interpretation given by Nurse and Philippson (1980a:40) was that F23 was heavily influenced by both DI60 (Western Highlands) and EJ20 (Southern Rutara). A second problem was that F10, F25, and F34 were not included in their study because there were no data for the languages. And finally, only one language variety/dialect was picked for each language, as if these languages are strictly mono-dialectal. These three problems justify our study in which we reexamine the claims made utilizing all members of Zone F. by including the majority of their dialects.

### 2.1.4 Earlier Zone F and SSN classification

The evolution of Zone $F$ language classification generally, and SSN in particular can be

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    '(...continued)
other such environments it is the following [ m ] which triggers vowel length.
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illustrated in Tablex $2.3,4,6,7,8,9,10$ below. Tahle 2.3 shows attempts represented by two periods in the work of Doke, that of 1943 and 1945 (Doke 1961:77. Cole (1961:85-6)). Others who followed him include Bryan (1959), Guthrie (1959. 1967), Nurse and Philippson (1980a) and Nurse (1999). In all these studies, the orthographic conventions of the authors have been adopted as far as possible, since the writing system has not been uniform among them, especially in representing language/dialect names. They are quoted verbatim.

### 2.1.4.1 Doke

The works of Guthrie and Doke are contemporary, and they might have intluenced each other in signiticant ways, since their maps of the Bantu area seem identical except for a few details (Herbert \& Huffman 1993 56-7). The following are the main features of Doke's work. as aptly summarized by Herbert \& Huffman (1993):
(a) Doke did not confuse genetic and referential classification in his scheme. Genetic classifications mirror history, whereas referential ones do not.
(b) He distinguished between group and zonc, whereby group refers to linguistic affinity, and zone more to geographical proximity than to linguistic phenomena.
(c) Doke's aim was not to provide an exhaustive list of all Bantu languages. but rather a list of the more important ones in a continuous work of improvement as information became available (Cole 1959:197)

Because of those features. Doke's work as one of the pioneers in the area was mainly tentative in an emerging Bantu specialization, without any rigid prescriptions, showing
difference in detail from what we know today, as indicated in Tahle 2.3. Much of the information known today was not available in his time. Doke's scheme is also used in other scholars' classifications for consistency's sake.

In Doke's 1943 work. Nyamwezi and Iramba are both in the Eastern Zone, forming two separate language clusters, while the rest of Zone F languages are not mentioned. The 1945 classification has Zone 50 or Eastern, with II groups Nyamwezi forms a major grouping, 50/1, with two language clusters, Nyamwezi (50/1/1) and Iramba (Ilamba) (50/2/1. Sukuma, Sumbwa. Nyaturu, Galaganza, Konongo, Nyanyembe and Kimbu make up the dialects of Nyamwezi, and no dialects are indicated for Iramba. The other member, Irangi (50/7/4), belongs to $50 / 7$ which is the East Central group, with members in that cluster including Zaramo. Sagara. Gogo and Irangi itself. The other Zone F languages like ìCiWùùngù. KiToongwe/KiBeende and KeeMbuwe do not appear

Table 2.3. Evolutuon of linguistic classification in Zone F: Doke (19+3 (19+5)

| Major Classification | Language or cluster | Dialects |
| :---: | :---: | :---: |
| 1943 <br> (V) EASTERN ZONE | (a) Nyamwezi, etc <br> (c) Iramba |  |
| 1945 <br> ZONE 50 (EASTERN) <br> 50/1 NYAMWEZI | 50/1/1 Nyamwezi | 50/1/1a Sukuma 50/1/1b Sumbwa 50/1/1c Nyaturu 50/1/1d Gaiaganza 50/1/1e Konongo 50/1/1f Nyanyembe 50/1/1g Kimbu |
| $50 / 2$ <br> 50/7 EAST-CENTRAL | 50/2/1 Iramba(Ilamba) <br> 50/7/4 Irangi | - |

## 2. 1.4.2 Bryan

The classification by Bryan (1959) does not aim at genetic relationship, but rather groups are presented as autonomous divisions and single units (Herbert and Huffiman (1993.55), as shown in Table 2.4. Dialects are shown where relevant, as is the case with Nyamwezi with 4 dialects, including Sumbwa (also shown as KinaMweri), which other linguists regarded as a separate language. Sukuma has only one dialect, Kiya. The major problem here was lack of information. For instance, it is not clear why some languages were shown with dialects. while others were not. The method used is not explicit as to whether those languages without any dialects were designated so by field research nor whether they were recorded as informants reported them. It is aiso not clear whether the criteria for sub-grouping are linguistic or geographical, since geographically, these languages are adjacent.

Tahle 2.1. Evohution of linguistic classification in Zone F: Bryan (1959)

| Major Classification | Language or cluster | Dialects |
| :---: | :---: | :---: |
| SUKUMA GROUP | Sukuma <br> Nyamwezi (ki-) | Kıya |
|  |  | Nyanyembe (ks-) |
|  |  | Takama (Garaganza) |
|  |  | Mweri (kl-na-) (or |
|  |  | Sumbwa) |
|  |  | Konanga |
| NIL YAMBA GROUP | Kimbo |  |
|  | Bongo | - |
|  | Nilyamba |  |
|  | RImi (kl-(Imi) | - |
|  | Langi (kI-) | - |
|  | ?Mbugwe |  |

### 2.1.4.3 Guthrie I

Guthrie ( $1967.5,6$ ) was careful enough in advancing his caveat from the outset that the aim of his monograph was two-fold. (a) to establish some framework for future reference in identifying and classifying Bantu languages, (b) to throw into prominence the places where knowledge of a language is fragmentary or even non-existent. In addition, he stated categorically that his work was essentially tentative, and that some well-informed person might find some groupings quite unjustitied (Guthrie:ibid).

Borrowing from Doke, Guthrie (1948:73) made a distinction between language groups and hanguage zomes whereby a gromp was a unit with a purely linguistic signiticance, whereas the zone was mainly geographical. This implies that zomes refer to language taxonomy based on geographical contiguity or proximity rather than on genetic affiliation. That is a very important distinction to make especially in Bantu languages which are essentially all similar, except when distance and other factors like contact with other groups make them less similar The work of Guthrie forms the major point of departure and will be quoted at some length to provide the background of the concept of Zone $F$ which permeates this study The following are the methods he used to arrive at his conclusions

In grouping the Bantu languages, Guthrie suggested two methods of classification, the historical and the empirical. He dismissed the historical as impossible to apply in the African context because there was 'no historical records', so we may hypothesize that by historical' perhaps he only meant 'written' records, thus assuming that history and the writing tradition
are synonymous, and that without writing, history is impossible (Guthrieibid), something which is unfortunately not true.

His empirical method included drawing isoglosses on a map to show the distribution of linguistic features. These are lexical, grammatical, phonological, phonetic and tonal (Guthrie, ibid) He identified the criteria for isolating languages as Bantu. dividing them into two groups, one based on principal criteria, which he said were straightorward to apply, and a second based on subsidiary criteria, which were less easy to apply because a language s forms change so much by contraction and attrition. For the principal criteria, he isolated two. grammatical and lexical. The subsidiary criteria included firstly, roots. "invariable cores" or 'radicals' from which most of the words are formed by agglutination, and secondly. a balanced vowel system in the radicals (roots) consisting of one open vowel /a/ with an equal number of back and front vowels.

The relevant criteria for this study are lexical and phonological. However, the lexical part is less relevant for the purposes of this study since Guthrie's concern was retention in the daughter languages rather than innovation. Retention would be handled by lexicostatistics. a method which was used by others, as described in 2.2.4.6 and 2.2.4.7 below in the discussion of Nurse and Philippson (1980a) and Nurse (1999).

In classifying Zone $F_{,}$, Guthrie (1967:46) admits that it is not a unique zone, because many of the features are not peculiar to it. He goes on to enumerate the distribution of some 17
characteristics which he views as the most important when they are taken together, although they are neither unique to nor distributed evenly in all Zone $\mathbf{F}$ languages, some not found in some languages. The list of these differentia contains mainly grammatical features, an area beyond the scope of this work.

The relevant phonological differentia include the following, as set out in Tahle 2.5 (Guthrie 1948:23. 1967:46-47). Some are either common to other Bantu languages, are not found in Zone $F$ or are simply obscure. For example, the alternations of $f e$ and $U \sigma$ in suffixes are not distinctive in some languages, while they are different phonemes in other languages.

Tahle 2.5 Phonological differentia defining Zone $F$,

| Feature | in Zone F, found in |
| :--- | :--- |
| Distinction between $i$ and 1 , and u and U | All except F10. F23. F34 |
| Long/short vowels | All |
| Every language is 7 V | All except F10, F23, F34 |
| Unusual aiternance $\mathrm{V} / \mathrm{r} / \mathrm{s}$ | F32 |
| K/C, $/ / r$, d/ altemations | Mixed picture, like other zones |

To classify these Bantu languages into finer groups of similar featured languages, Guthrie (1967:27,28) suggests two possibilities:
(a) Classification by fragmentation, starting with the whole of Bantu and then subdividing it into sections of closely related regions until the smallest indivisible. useful unit is reached. This however was the technique attempted earlier and did not yield good results.
(b) Classification by taking one individual language as a core, starting point, then grouping
all those languages adjacent to the core language displaying similar characteristics. According to Guthrie, these characteristics are selected for practical reasons rather than taking all possible features to be shared by the languages in one zone. A wider selection of features will imply the inclusion of fewer languages, while a few shared features will admit more languages into a zone. This means that in some members of the group an important feature may be missing. This method modifies his empirical method involving use of what he calls the practical method. The arbitrariness of the features selected is an essential modifying technique to his empirical method, a method that he used to classify all the Bantu languages into 16 zones: $A, B, C, D, E, F, G, H, K, L, M, N, P, R$, and $S$, where $D$ and $E$ were later reconfigured by other scholars to obtain Zone J distributed into DJ and EJ. By zone. Guthrie (1967:28) therefore meant, 'primarily a set of groups which have a certain geographical contiguity and which display a number of common linguistic features as well'

Such a process is contradictory in one sense. At the beginning, Guthrie said zones are not linguistic. When he implemented the procedure, zones became geographical and linguistic entities at the same time because zoning was based on linguistic criteria rather than defining areas arbitrarily for purely geographical convenience. And it is for this change of procedure for which Guthrie is criticized, because he did not follow through his excellent caveat quoted above. To avoid this error, Guthrie would surely have admitted that some geoyraphical overlap in the distribution of speech communities is a regular and sometimes necessary correlation between people and territory.

As a major linguistically based classification then, Guthrie's attempt marked the beginning of well-grounded work, since some of these zones are linguistically valid. The members of Zone F in this scheme were those shown in Table 2.6. This early classification did not include any F31, F32, F33 and F34. In the SSN group, all the dialects belonged to F22, while F21 stood alone as a mono-dialectal entity.

Tuhle 2.6. Evolution of Ingunstic classification in Zone F: (inthrie / (IVAN)

| Major Classification | Language or cluster | Dialects |
| :--- | :--- | :--- |
|  | Tongwe F.10 | Tongwe F.11 |
|  |  | Bende F.12 |
| Zone F | Sukuma (ku-) F.21 | - |
|  | Nyamwesi (kI-) F.22 | Nyanyembe F.22 |
|  |  | Takama F.22 |
|  |  | Mweri F.22 (Sombwa) |
|  | Krya |  |
|  | Sombwa (kI-) F.23 | - |
|  | Kimbo (kI) F.24 | - |
|  | Bongo (IkI-) F.25 | - |

A major criticism of questionable classification can be levelled against Guthrie's finer classification in SSN. If "Sukuma", "Takama", "Kiya", and "Mweri" all refer to the four cardinal points, North, South, East and West respectively, how can Guthrie's Nyamwezi include all the cardinal points as its dialects and exclude one. Sukuma 'north' as a separate language?

In addition, how can Mweri (or (kr-) Sumbwa (in F22)) be different from (kI-) Sumbwa F23?

This might have been a problem of relying on informants' responses without cross-checking to be certain what they meant by the labels they used. To say that "so-and-so is eastern, western, northern, or southern", does not automatically mean that they belong to the same genetic language. It may simply mean "people living there, the others". regardless of linguistic, ethnic. cultural or biological affiliations. For instance, it is common for F2lb speech communities to call all those on their west " $\beta$ ànà $\ddagger$ weeli" which simply means, "people who are on our west". These western people include every speech community to their west. including some F2la, F23 and EJ23 (RuZinza) speakers. The F21 speakers regard all people to their south as $\beta$ aDakama, without any specific reference to linguistic affiliations. It is such situations of self-reporting by the informants which might have swelled the number of languages and made the distinction between "language" and "dialect" even more difficult when these artificially created identities, the 'tribes' took root. As many have commented, some languages appear to be dialects of one language linguistically. although regarded as separate languages when broader social identities are referred to, especially when outsiders had to label communities, as happened in colonial situations or when African societies named their neighbours according to their perceptions and points of view rather than according to the facts at hand.

### 2.1.4.4 Guihrie 15

The classification shown in Tahle 2.7 is a revised version of Guthrie's 1948 scheme, and it shows some alterations, like the introduction of F31, F32, F33 and F34

However, the dialects of F21 and F22 remain the same, while the status of Mweri (F22d) and Sumbwa (kI-) (F23) continues to be ambiguous as to whether Mweri was the same as in the 1948 classification, belonging to both F22 and F23, or it was different. As many others have observed, the subsequent researchers have not taken Guthrie's caveat into account and they have continued to regard Mweri (F22d) and Sumbwa (F23) as separate and the same entity at the same time, hence being caught in a dilemma of whether to view F23 as a dialect of F22, of F21 or as an autonomous language. Part of the problem is Guthrie's violation of his own caveat by promising to use geographical criteria and ending up employing linguistic ones. Kahigi (1988:2,3) traces this ambiguity of classification to Dahl (1915 xii) and Bryan (1959:119). However, it is the case that Bryan (1959:119) does not mention Sumbwa at all. but rather she foot-notes her source of information that it was supplied by Chief Lugusha of Tabora who mentioned to her that (ki)Nyamwezi had 4 dialects, (ki)Nyanyembe. Takama, (ki-na-)Mweri, and Konongo Where she does mention Sumbwa, it is in connection with the classification by Guthrie in which she was only a compiler, and which she labels MG3 Quoting Guthrie, she records one dialect of (ki)Nyamwezi as "M/weri F:2, 0, wher mames Sumbwa" where "M/G3" refers to Guthrie's revised classified list of Bantu languages manuscript. then (1959), while the " 0 " refers to a language about which Guthrie did not have tirst-hand knowledge. Such languages of which he had second hand knowledge include Mweri (Sumbwa, the dialect), Takama (also called Garaganza) and Krya (Bryan 1959 ix (acknowledgements and explanatory notes), 119).

This revised list of languages included dialects for which Guthrie himself had only second-
hand information, supplied by some speakers of SSN who gave their native speaker intuitions with all their other socio-cultural perceptions, biases, attitudes of and affiliations to the other surrounding speech communities, etc. Such attitudes and perceptions dividing F22 dialects did not necessarily coincide with purely linguistic classification within SSN

The SSN classification, therefore, while trying to be as linguistically based as possible, was also largely areal. It took into account the possible geographical spread and proximity of the Bantu languages, just as Guthrie ( $1962 \mathrm{~b}: 5$ ) himself notes, and Dalby (1970 162) and Nurse (1979:43) observe about the role of proximity. The members of Zone F were thus more or less fixed at 11 major language groups, as shown in Tables 2.7 and 2.8 , athough that was not meant to be the final classification by Guthrie.

Table 2.7. Evolution of linguistic classification in Zone F: (iuthrie I/ (IDG7)

| Major Classification | Language or cluster | Dialects |
| :---: | :---: | :---: |
| Zone F | Group 10 <br> F. 10 Tongwe <br> Group 20 <br> F. 21 Sukuma, ki- <br> F. 22 Nyamwesi, ki- <br> F. 23 Sumbwa, ki- <br> F. 24 Kımbo, ki- <br> F. 25 ßango, rkı- <br> Group 30 <br> F. 31 Nilamba, rkı- (llamba) <br> F. 32 Rimi, ki- (Nyatoro) | F. 11 Tongwe. krF. 12 Bende <br> F.22a Nyanyembe kiF.22b Takama F.22c Krya F.22d Mweri |

### 2.1.4. 5 Guthrie III

The final stage in the classification of Bantu languages, and Zone F and SSN in particular by Guthrie saw some discernible stages of development in Bantu classitication (Tah/e $2 . \delta$ ) Modifications are introduced as perceptions change significantly, while other alterations undertaken are only minor where the linguistic groups remain essentially the same This implies that the eleven members of the Zone spring from the same node of the tree, using the tree-model metaphor, because of the linguistic criteria used.

### 2.1.4.6 Nurse and Philippson

Among others, Nurse and Philippson (1980a, 1980b) are sceptical about the unity of Zone F, as introduced in 2.2.3 above. Using the lexicostatistical method, they divide the Zone into two parts, West Tanzania and Langi. In their scheme, Langi is composed of Langi itself and Mbugwe. They separate Langi and Mbugwe from the rest of West Tanzania because the connection is mainly lexical, whereas syntactically, Langi/Mbugwe resemble the Ruvu languages. West Tanzania is further sub-divided into two, SSN and Nilyamba/Nyaturu/Kimbu, as illustrated in Table 2.9. below,

Tahle 2.8. Evolution of Iinguistic classification in Zone F: Guthrie III (1970)

| Major Classification | Language or cluster | Dialects |
| :---: | :---: | :---: |
| Zone F | Group 10 <br> F. 11 Tongwe <br> F. 12 Bende <br> Group 20 <br> F. 21 Sukuma, kI- <br> F. 22 Nyamwesi, ki* <br> F. 23 Sumbwa, ki- <br> F. 24 Kimbo, ki- <br> F. 25 ßongo, rku- <br> Group 30 <br> F. 31 Nilamba, rki- (llamba) <br> F. 32 Rrmi, kre (Nyatoro) <br> F. 33 Langi, kI- (Irangi) <br> F. 34 Mbogwe |  |

Table 2.9. Evoluton of lingrustic classification in Zote F: Nurse \& Phulippson (19soa)

| Major Classification | Language or <br> cluster | Dialects |
| :--- | :--- | :--- |
|  | A. West Tanzania <br> 1. SSN | Sumbwa <br> Sukuma <br> Nyamwezi <br> WEST TANZANIA/LANGI |
|  | 2a. NNK | Nyaturu <br> Nilyamba <br> Isanzu <br> Nyambi <br> Kimbu |
|  | 2b Kimbu | B. Langi | | Langi |
| :--- |
| Mbugwe |, |  |
| :--- |

# Furthermore. Kimbu is separated from Nilyamba/Nyaturu because of having some influences 

 from West Ruvu languages.The major criticism regarding this division is that Sumbwa and Kimbu, and indeed Langi and Mbugwe, cannot be set apart from the rest of Zone F simply because they have been influenced by their neighbours. Another more important point of contention with this division is that the authors did not have enough data for some of the members, notably Mbugwe and Kimbu (Nurse \& Philippson 1980a 47-8), in addition to the fact that they did not include Tongwe, Bende and $\beta$ ungu without any strong justification apart from the fact that they did not have data for those languages ${ }^{x}$. A third objection is the raised status of isanzu and Nyambi as coordinate with Nilyamba and Nyaturu. Table 2.9 gives the impression that all the possibilities were explored and that the languages shown represent the complete and accurate configuration of Zone F , including their internal hierarchies.

### 2.1.4. 7 Nurse

The classification of Zone F by Nurse (1999) while not signiticantly different from that of Nurse and Philippson (1980a), differs substantially in that Nurse suggests not only that Tongwe, Bende, $\beta$ ungu and Sumbwa be excised from Zone F, but also that Langi and Mbugwe be excluded as well (Nurse 1999:10-1). Labroussi (1999.360) shares Nurse's reservations about $\beta$ ungu (Wungu). She describes the language as belonging peripherally to

[^11]all its neighbours, but differing from thern in significant ways so much so that it cannot be grouped with them. She prefers to place it lexicostatistically with the macro Mwika-Nyika group (Zone M)

The status of SiSuumbwa is questioned because, like KiBende, it has BS and $7>5$, while the rest have neither. Nurse bases his arguments on a survey of the lexical, phonological and lexicostatistical literature. No definite answer is also given as to where these excised languages/dialects should belong. Since assigning membership of those languages was not the aim of his paper, an answer was not expected, just as it is not our central aim to trace the roots of any group which does not fit in Zone $F$ and place it where it belongs.

What remains of Zone F therefore, is what Nurse (1999.10) calls core group of West Tanzania', namely F21/F22 (KıSukuma/KiNyamweezi), which he calls dialects of one language : F24 (KIKIImbu), F31 (KInILaamba); and F32 (KIRImi, or KINyaturu, properly known as KINyaRuu by the native speakers)

One main reason why these other language varieties are excluded by Nurse is that they still lack sufficient information (Nurse and Philippson 1980a:47, Nurse 1999:11).

Tahle 2.10. Evolution of linguistic ciassification in Zone F: Nursc (I9y9)

| Major Classification | Language or cluster | Dialects |
| :--- | :--- | :--- |
| WEST TANZANIA or | Sukuma/Nyamwezi |  |
| TAKAMA | $?$ Sumbwa | - |
| or | Kimbu | - |
| Zone F | Nilyamba |  |
|  | Nyaturu | - |
| $?$ Tongwe/Bende <br> ? Langi/Mbugwe <br> $?$ Bungu |  | - |

The reason is not strong enough since what is needed is more research first before conclusions are made, although Nurse (1999:10-1) correctly calls for a reexamination of such unknown languages. It is the aim of this study to redress that shortcoming by including all members of Zone F as presented by Guthrie (1967-71), using data to test the suggestions of excision given.

## 2. I.4.8 Classification in SSN and Zone F: a synthesis

From the foregoing, it is evident that the reexamination and possible reclassification in SSN and Zone F is quite in order. While the work of the pioneers cannot be faulted, this study endeavours to reexamine SSN and Zone F, given the unsatisfactory manner in which the subject has so far been treated, especially in the area of research in undescribed dialects. The earlier studies laid a solid foundation for future scholars and students of Bantu. But the majority have also continued using the schemes of Bantu classification without questioning whether those languages were indeed mono-dialectal or not, and whether adding undescribed dialect(s) would make any significant difference. This issue of unquestioning acceptance of

Guthrie's contribution is also raised by Nurse (1999:10) in reterence to Zone F having historical validity. With this inquiry it is felt that some languages are not members of Zone F and should be removed. However, data for some of them were totally missing and reconciling the different observations made is possible only by using the comparative method and lexicostatistics in addition to phonological criteria based on comparabie data for all dialects

A minor issue concerns orthography. Each author writes the names of the varieties according to his/her perception and competence in phonology and graphemics rather than how the natives of that community understand the names. These names which depant from the conventions used in this study are quoted as they appear in those works. This unsystematic representation is unfortunate. For instance, as an extreme case, most of the Zone F languages have no ' $r$ ' in their phonological inventories, but it appears in (iurtagenza. Most Zone $F$ languages have a 7 -vowel system with a short-long vowel contrast, but many of the scholars do not show vowel iength in their writings nor the 7 vowels. All the languages in the zone are also tonal, but the tones are not always shown partly because of the excuse that it is difficult to mark them and the context can always disambiguate words. It is this problem of misrepresentation which creates some of the problems of phonological analysis. In addition, the received nomenclature from the earlier times has not been modified to match the expansion of knowledge. This contributes to the indeterminate number of Bantu languages, since what some of the names refer to are non-existent entities while others are simply misleading. Take for instance the concepts of directional names such as dikimai.
'south', also written as Tukama to refer to entities which are not linguistic. It is one of the lesser aims of this study to clarify such issues where possible.

### 2.1.5. Historical interpretation in SSN and Zone $F$

The role of linguistic studies in understanding history and culture cannot be overemphasized, as Dickens (1995:32-3) correctly observes and Wilmsen (1995) and Barnard (1995) agree when referring to the same subject:

It is perhaps unfortunate, but it is certainly true, that a good knowledge of the target language cannot be achieved without at least the ability to perceive (and articulate) its phonological contrasts and the ability to classify its morphemes grammatically. Of course, if one is to make historical inferences about a culture from its language, then a background of how languages change over time is also necessary.

For instance, Abrahams (1967b:1) comments that, although F23 is located within F22 administratively and is treated in the literature as if it belonged there, it had a cultural affinity with western neighbours like the $\beta$ aha (DJ66). In the map of Unyamwezi. Abrahams excludes the ßaSuumbwa By "cultural affinity' he might have meant 'linguistic affinity" as well. which is attested by our preliminary findings.

Historical interpretation in SSN and Zone F therefore suggests taking into account all pieces and bits of information like that anthropological work by Abrahams. Such works go a long way in filling the gaps or resolving contradictions which linguistics alone might not handle For instance, there are few words within Zone F which are also found in N10. Tanzanian Ci Ygoni. The Wallgoni's migratory history from southern Africa is recent in areas like Lake

Nyasa where the Wangoni entered.

But significantly, the Lake Nyasa (Malawi) area into which the Waクgoni entered, was also famous as a source of slaves by slaving expeditions to and from the indian Ocean coast during the 1860s to the 1880s. Slave narratives are normally common with people who have first hand experience of slavery within their clans, even after many generations have passed. During a recent survey in the area, many people did not remember anything about the slave trade. They remembered the Walクgoni warriors only (Mihanjo, Mapunda and Luanda 1999). Such communal loss of memory seems to suggest two things (a) oral history of such places would not reveal the past if the first inhabitants emigrated and completely new ones occupied their areas, with no one to tell any story. This is an unlikely explanation, because some people survived and remained within the area (Mihanjo, Mapunda and Luanda 1999:3); (b) because the experiences of slavery are associated with the shame of defeat and humiliation, the people would conceal that part of history, although archival sources confirm the presence of slavery up to 1895 (Mihanjo, Mapunda and Luanda 1999:3). The absence of story tellers does not mean the absence of events, and hence absence of history in the area

When there are knowledge gaps like this slave trade case, especially in relation to Bantu, Zone F and SSN, any source might shed new light. Works in ethnobotany, folk history, oral traditions, or myths should not be dismissed. For example, the contributions by Musso (1968), Chubwa (1979), Mabala (1988), Kairanya (1990), Mdachi (1991), Mkirya (1991). Abdallah (1991), among others, are welcome. They deal with records of oral traditions
elicited from communities the authors know well, supplemented by a few external sources. Such contributions should be complementary rather than be dismissed out of hand before complete evidence is gathered and compared with them. The usefulness of myths. oral traditions and folk histories is corroborated by Schmidt (1978.273), who, working in Buhaya, Kagera Region, excavated prehistoric artefacts from sites mentioned in oral traditions only. The correlation between oral tradition and archaeological tind were one-to-one. Such inclusion also takes care of the pitfalls of interpretation, which are normally influenced greatly by the theoretical framework one chooses to use to formulate a research problem, gather data. analyse it and integrate the results with known knowledge.

### 2.2 CONCEPTUAL FRAMEWORK

This study analyses both quantitative and qualitative evidence in tracing the linguistic history of SSN within Zone F. The evidence comes from phonological and lexical features shared by the target languages. Because of this scope, the family tree model fits the comparative method and lexicostatistics as methods of subgrouping, while the contact models of language development are reflected well by qualitative analyses of vocabulary, especially areal features and loanwords. The comparative method is essentially qualitative and lexicostatistics is quantitative. Indo-European philology gave birth to the comparative method, especially with the work of Schleicher and Grimm (Meinhof 1932:19-21). The method or its close version was later introduced in Bantu studies. Later, lexicostatistics was added to deal with matters of statistical measures and chronology, in addition to the role of sub-grouping. These two methods or reactions against them and their evolution gave rise to all the major models
of language development, namely, the tree, wave, and contact approaches In this study the family tree and contact models are used.

The wave model is not used, although it handles overlapping features in cases of mixed languages, pidgins or creoles. The model was meant to address the questions raised by the tree model, It views innovations as originating from one source, in one language or dialect. and then they radiate in all directions like a pebble thrown into a pond of water, creating ripples which travel afar, but weaken as they move away from the source. Different innovations may start from different sources and criss-cross at language and dialect boundaries, making some vanieties share features with others, which can be traced as isoglosses. A tree model would not show that overlap (Anttila 1972).

The wave model. while it accounts for convergence in language development. is not compatible with the comparative method. Its power rests in accounting for contact

Significantly, the two models, family tree and contact. correlate well with shifts of paradigm" in archaeology and history over the decades as the perceptions of phenomena shifted due to improved horizons in the development of knowledge generally. The major paradigms have been migrationist, processual, and contextual, in that order, ahthough not in a one-to-one relationship with the models (for a full discussion of these paradigms. see

[^12]Chami 1994, Trigger 1994, Rentrew and Bahn 1996, Harke 1998). It is worth mentioning here that paradigm shift does not mean complete rejection of earlier paradigms. It only means that new approaches emerge to challenge the old, with each approach having adherents because of its merits, so that parallel paradigms can co-exist and compete. creating different schools of thought in the larger scientific community.

Since these approaches in archaeology and history have had a great impact on linguistics, a brief description is in order because they influence greatly the way our data is described and interpreted historically.

Some scholars working or having an interest in linguistics have also been working or interested in archaeology, history, anthropology, philosophy, and ethnology, among many disciplines, and the methods from those other disciplines have found their way into and influenced linguistic thinking in important ways. The approaches are not mutually exclusive nor monolithic, but rather they complement each other as they attempt to explain historical events from different angles. In addition, each paradigm or model best handles one type of data than another. For instance, the family tree model works well with lexicostatistics and the comparative method because these two assume monogeny

The contact models which emerged with the development of sociolinguistics are suited for analysing qualitative data in phonology, syntax, semantics, morphology or lexis, in examining areal features and/or loans. In the contact models, lexical distribution is explained in terms
of the interaction of contiguous speech communities and the potential for one-way or mutual influence. The situation that obtains in SSN and Zone F is that captured by Thomason and Kaufman (1988:35-95) about changes occurring in languages without any shift. Since changes are relative, depending on many dependent variables, they may include borrowing vocabulary, new sounds, derivational affixes, phonological features, inflectional affixes followed by major structural features. The cases of BS and DL processes within SSN and Zone F generally, for instance, can be explained in these terms where some core members appear to originate the process, and other adjacent languages borrow words. By borrowing lexical items, they introduce BS- or DL-like processes in their systems. These processes tend to be unproductive in their new environment because they are difficuit to adapt fully. The tendency of borrowing is greater when the power relations between languages in contact are asymmetrical; the period of contact is long; their numerical strengths differ: and the typological fit is closer. In the case of Bantu speakers, asymmetrical power, for instance, may be medicine related to the supernatural. specialized knowledge in animal husbandry, as in the case of borrowing colour terms of cattle from Southern Cushitic by Zone F communities.

The migration and diffusion paradigm, though heavily criticized for its ethnomorphic ${ }^{10}$ leaning, especially in the past, has some important relevance in our study, since synchronic movements of some KrSukuma (F21) speakers supports that possibility. Starting from the

[^13]early 1970 s , when there was a great drought in the region, some communitics of $\beta$ aSukuma moved and settled in Morogoro, Mbeya, Iringa and Rukwa regions ${ }^{11}$. They were refused the permission to cross into Zambia with their herds of cattle because of the new political boundaries, which the $\beta$ aSukuma did not recognize. Wherever they settled, these migrant communities were large enough to continue using KiSukuma amongst themselves, as they continued to keep in touch with the larger KISukuma communities they had left behind Three decades on, they began to intermarry with the communities they had found, resulting in mutual borrowing of some lexical items. Contrary to the military and conquest model of migration explained below, these KISukuma migrants have tended to blend well in their new settlements, with only minor skirmishes between them and the predominantly agricultural communities they found. Since they both keep cattle and cultivate cash and food crops, they solve their problems without resorting to war. This state of affairs might have existed even in the past where the resources were likely to be even more abundant.

Migrationist (also known as traditional, evolutionary or diffusionist) archaeology is an approach with a tendency to explain cultural change, different phenomenon or similarity of material culture of one society as an adoption from foreigners, neighbours or trading partners ${ }^{12}$. For instance, where "Hamitic" languages were not spoken, it was argued that the "Hamitic" overlords had adopted the languages of the conquered Bantu and that their own

[^14]speech had disappeared without trace (Trigger 1994:328) ${ }^{13}$. In archaeology, the ruins of Zimbabwe were thought to have been the work of civilized foreigners from the north. the Phoenicians of the Middle East. rather than the work of the Shona themselves because of the spectacular structures found there (Renfrew and Bahn 1996:443-4). The migrationist paradigm was an approach common to archaeologists who were trained in classics and history. While diffusion does not necessarily imply movement or replacement of peoples, migration implies precisely that. Migrations have indeed existed from time immemorial. Even in Bantu studies, it is often assumed that the Bantu migrated from parts of western Africa and expanded to central and southern Africa because of iron technology and the superiority it conferred on them to conquer other communities.

For instance, Hock (1991:467-70), gives an account of migrations, taking some Indo European languages as his point of departure, elaborating on the theory by Dyen (1956). According to this idea, migrations as massive movements of people from one place to another are a common phenomenon throughout human history. Speech communities migrate to new territories where they find native people with their own different languages, resulting in at least four effects

[^15]First, if a migrating speech community finds no native linguistic competitor in the new area, the possibilities of dialect/language expansion are limitless as the native dialects/languages are replaced by those of the immigrants. With time, variation emerges as speakers spread in their new territory. Where there is no prehistoric evidence, such dialectal spread is suggestive of migration from an original homeland. In the area under study, linguists and historians alike suggest that the Bantu groups migrated and spread into the area and became dominant both culturally and economically (Batibo 1992b:47).

Secondly, migrating speech communities tend to have smaller linguistic diversity than those left behind as the speakers in the new environment are forced to forget their differences in order to survive. For instance, English in the Americas or Australia shows less heterogeneity than English in Great Britain where the dialectal variations are enormous. In this regard, homogeneity of several Bantu varieties in one location is suggestive of immigration. This hypothesis is difficult to accept as universally true since homogeneity is brought about by factors other than immigration alone. For instance, in societies like the United States, class distinction is based on property, colour, race, or geographical origin of immigrants. In this situation, regular contact between speakers of one variety of a language like English is discouraged. As a result, each class of people evolves or maintains their own peculiar form of English, as is the case of Ebonics for the majority of Americans of African origin.

Thirdly. decreased contact between the homeland and the emigrants in their new home results in innovations in the homeland which fail to reach the emigrants in their entirety, or fail to
reach them completely.

Lastly, a complete separation with the homeland may ultimately result in the appearance of new, different languages. In the absence of written documents. only traces of linguistic features may constitute proof that the migrant groups did indeed originate in a certain area. Schmidt (1978:287-97) and Chami (1999), among others, doubt the migratory explanation for Bantuextension, since archaeological studies find no evidence. The migration explanation is also highly speculative because it is treated as a fact instead of being a hypothesis only. Chami (1999:205-9) points out that the trade explanation linking East Africa and the GraecoRoman world in antiquity might explain some of the rapid spread of material culture in East Africa rather than migrations of people. The spread of iron, for example, started in the Lacustrine region of East Africa rather than West Africa where the Bantu are thought to have originated. In Africa, as elsewhere, military superiority in prehistoric times might have been irrelevant, because it is only one source of power.

As a challenge to traditional archaeology, processual (or new, behavioural) archaeology refers to the dynamic relationship between socio-economic aspects of culture and the environment as determinants of cultural processes and change. It was a reaction against conceptions of the world based on culture history as practised by historians trained in classics and history. This alternative paradigm aimed at placing credit where it was due, rather than attributing change and innovation predominantly to invaders or conquerors (Itandala 1979:148; 1983-43-4; Chami 1994:19). In the case of the Bahutu and Batuutsi cited above,
the "Hamitic/Cushitic myth" remains a myth, since there is no evidence to substantiate that the Batuutsi who are thought to be probably Nilotic or Afro-Asian indeed lost their language without trace ${ }^{14}$

It was from the backdrop of such paradigms that the family tree model of language development evolved. It was an analogy from the evolutionary nature of biological organisms which start from one source and expand into new territories. Because the migratory paradigm is not dead. and sometimes migrations do indeed take place as explained by Hock (1992), it is important to mention the models used in this study since they are inevitably influenced by the migrationist paradigm

### 2.2.1 The Models of tanguage development

### 2.2.1.1 Family Tree model

As the name suggests, the family tree model, spurred by the theory of biological evolution of various species from one source, compares languages starting from a parent who gives birth to daughters who in turn give birth to children, in an endless cycle of change (See Vansina 1995 and Nurse 1997 for an overview of this model and others). Related dialects are considered to be co-ordinate, at the base of an invented tree, from where their ancestor is

[^16]posited as uniting them into a single node. forming their proto-language. That proto-language is itself considered to have had relatives at another co-ordinate level who were united to form another node higher up the hierarchy, forming yet another proto-language. The process is repeated until one super-ancestor is reached from which all the language varieties descended. The form of the tree resembles a tree trunk, with the dialects forming its finer branches.

The model, and hence the comparative method and lexicostatistics. assumes monogeny, with an inherent tendency to exclude all other words from a comparative series. because the aim is cognation only. The linguistic tree is assumed to have only one root which gives rise to many daughter languages. Existing speech communities however show that a language may arise out of many sources, as in the extreme cases of pidgins, creoles, and mixed languages like Tok Pisin. Ma'a (Thomason and Kaufman 1988). This indicates that proto languages should be thought of as having dialects, as in Proto Indo-European (PIE) 'warm' from *gwerm- - Eermós "'warm, hot' in Greek and PIE *gworm- ~ fornus 'oven' in Latin.

On the other hand, the criticisms are not fully justified because the aim of the tree model and its parent source, the comparative method, is the tracing of genetic relationships between languages rather than to find all the sources from which languages drew their resources. It is against this background of unexaggerated function that the model is used in our study. It is not an absolute or perfect model for a one-to-one relationship between historical event and its representation. Rather, it is only one way of representing reality in a simplified way. needing other tools and external sources to arrive at a historical interpretation.

### 2.2.1.2 The Comact models

The contact models are explained in detail by Thomason and Kaufman (1988). They view similarity between languages as a range of possibilities, one being genetic affiliation, and the other contact. Languages can be similar because the speakers have been adjacent for a long time, interacting and borrowing from each other.

In the area under investigation, groups like the Sandawe and Hatsa (also Hadza) of the Khoisan family are found, and they have been living there for an unknown number of centuries. As Ehret ( $1984: 489$ ) suggests with regard to the SSN speakers, the Hatsa and the Sandawe might have been earlier settlers in the area. They have remained without being assimilated by the immigrants by maintaining their way of life for the most part. However, who settled there first is a matter of relative chronology since Proto-KISukumaKINyamweezi seems to have originated within the general area of ßuSukuma (Ehret ibid) Posnansky (1981:533) also comments on this problem of dating, that, although the dates obtained by the Carbon $14\left(\mathrm{C}^{1+}\right)$ method are relatively accurate, "the variability for the period under review may range over several centuries". Linguistic evidence gives some clues to the interactions between Bantu groups and others, as the following JinaKirya words compare with those from Sandawe, taken from Newman (1970)

| JinaKirya (Bantu) | Sandawe (Khoisan) | Gloss |
| :--- | :--- | :--- |
| mböüshi | büs' | (Wildebeest) gnu |
| ndơólò | dóró | Burchelf's zebra |
| moogá | mógà | Amaranthus graecizans (plant, green vegetable) |

From such shared vocabulary, more hypotheses can be advanced. As the lexical items show, either group might have borrowed from the other, that is, Khoisan Sandawe borrowing from Bantu JinaKirya, and vice versa, showing a contact situation. The direction of borrowing can only be ascertained by comparing a large corpus of lexical items from the pair of languages in relation to the vocabulary of the other members of the varieties in contact. Vocabulary items representing tangible objects like working tools, utensils and ornaments are one of the easiest to borrow and diffuse from culture to cuiture (Anttila 1972:155). Within one group of languages, lexical diffusion from external sources results in lexical variation, double or irregular reflexes. It also results in dialect mixing. Dialect mixing is common in SSN

When dialect mixing (or 'koineization') is between related languages, detection of loans is almost impossible without the help of marked features from one of the dialects in contact. It is also impossible to detect loans if the source language ceases to use a word, while the recipients continue using it. In (3), it may be the case that the Sandawe were assimilated, although they retained some words which then spread to the rest of the JinaKIrya immigrants. On the other hand, the Sandawe speakers might have borrowed from JinaKirya some of the names for animals and plants. The evidence of this would come from other KISukuma or Bantu dialects. If they had the same words, then Sandawe would have borrowed them

### 2.2.1.3 Theories and models: Dynamism in SSN and Zone F

SSN and Zone F communities in general have been very dynamic, with many movements of people characterizing the area. There have been internecine wars, famines, search for agricultural and pasture land and slave raids. In prehistoric times, such movements might have been numerous. Recent history around the Great Lakes area calls to mind the movements of people from various places to sheltered enclaves either in mountainous areas or in plains where enemies could be seen from a distance. SSN speech communities could have taken shelter in those areas which were not slave routes nor reservoirs of slaves. That may partly explain the extent of SSN's mixed status, as people from diverse groups who have entered the area and conformed with the people they found in order to survive ${ }^{15}$.

Current research in historical linguistics promises and professes dynamism in intent, but fails to reach that dynamism in practice. Language communities continue to be cast in rigid geographical areas as shown in Map 1.3 which draws boundaries as if they are immutable enclaves enclosing ethnic communities. While locating linguistic communities without borders seems to promise capturing the identity of the fluid nature of speech communities and languages, the analyses lag behind and continue locating language varieties as rigid, isolated entities. Cases in point are the SiSuumbwa, KeeMbuwe, KiiRangi, ICIWuungu and

[^17]KiBende/KiTongwe varieties which display that dynamism in their phonology and vocabulary as they interact and are influenced, so much so that many scholars treat them with suspicion when they are grouped in Zone F. It is within the aims of this study to examine their status in Zone F and SSN vis-á-vis their dynamism, and whether their exclusion is indicative of separate paths of historical development or contact only. While the family tree model shows relationships between languages/dialects, it is the contact model which promises a better interpretation in Bantu scholarship. The model treats languages as entities in perpetual motion, their dynamism shown by their maintenance, shift, or death, while others 'commit suicide or are murdered' (McMahon 1994 284-305)

### 2.3. CONCLUSION

This literature review surveyed what has been done in description, classification, and historical interpretation in SSN and Zone F. The weaknesses identified include gaps in the description. classification and interpretation of the available linguistic data. Thus, the following are areas of focus in this study: description of the historical development of SSN and Zone F with reference to $\mathrm{BS}, 7>5$, DL, glottalization, voiceless nasal formation and vocabulary in order to give a new interpretation and improved classification.

## CHAPTER THREE

## PHONOLOGICAL DEVELOPMENT

### 3.0 INTRODUCTION

The Proto-Bantu phonological inventory is composed of the following reconstructed
 the pre-nasalized consonants /*mp, "mb, *nt, *nd, *nj, *лc, "nk, né. The focus of this study is the eight non-nasal phonemes / ${ }^{*} \mathrm{p},{ }^{*} \mathrm{t},{ }^{*} \mathrm{k},{ }^{*} \mathrm{~b},{ }^{*} \mathrm{~d}{ }^{*} \mathrm{~g},{ }^{*} \mathrm{c},{ }^{* j} / \mathrm{j} /$ in relation to three major phenomena: vowel systems, especially reduction of 7 vowel system to 5 vowels $(7>5)$; Bantu Spirantization (BS), especially as related to $7>5$; and Dahl's Law, one the one hand. and glottalization and voiceless nasal formation on the other. The study of the eight target sounds shows those phonological developments more clearly than others like nasals

One issue which needs elucidation is the status of * d and the $/ \mathrm{d} /$ and $/ / /$ retlexes in synchronic Bantu phonological inventories. Dealing with the stops versus continuants controversy,

Kahigi (1987, 1988. 1995) also addresses the choice between $/ \mathrm{d} /$ and $/ / /$ in reconstructions ${ }^{2}$.

[^18]In the reconstructions by Guthrie, $/ 1 /$ is absent. This assumed absence of *I in Proto Bantu is odd taking into account the synchronic distribution of laterals across Bantu, especially with regard to languages like KIKitmbu, which are stil! like Proto Bantu in their phonological systems. The reflex of *d being /// in many languages, including KIKIImbu (F24) and KinILaamba (F31) indicates that the Proto Bantu form might have been *| rather than *d The reconstruction with *d might be relevant in the parent of Proto Bantu. It is odd for KiKirmbu and KiniLaamba to have almost identical consonants with Proto Bantu, except for one or two phonemes like*d. This $/ / /$ solution in part supports the proposal of positing PB *! by Meinhof (1932) as one important pointer to something amiss with the ${ }^{*} \mathrm{~d}$ reconstruction. The findings of the UPSID ${ }^{3}$ sample of liquids in world languages also lends some solid suppon for PB *1. Out of a sample of 317 world languages in the UPSID, almost all ( $95.9 \%$ ) had at least one liquid, while $72.6 \%$ had more than one liquid (Maddieson 1984:73). If this Proto Bantu *land *d hypothesis is correct, then KrSukuma's /d, V/ and KrNyamweezi's /// are actually inherited reflexes from Proto Bantu. They did not change. just as the sounds like $/ \mathrm{k} /, / \mathrm{p} /, / \mathrm{t} /, / \mathrm{g} /$ did not change from Proto Bantu. However, scholars posit PB *d or PB *1, but not both (See the discussion with some data in 3. I.2.III, 3.1.2.1I. 3.1.2.12, 3.2.1.1.7, 3.2.1.1.8 and Table 3.28).
${ }^{2}$ ( continued)
reflexes which violate both phonetic and typological plausibility.
${ }^{3}$ UPSID is an abbreviation for the UCLA Phonological Segment Inventory Database.

Since the nasals and vowels are relatively stable in Zone F and have not changed much from Proto-Bantu, only a limited discussion of them is undertaken in the general overview of Zone F in the first part. SiSuumbwa. KıSukuma and KiNyamweezi are described in detail in the second part while the third is the conclusion.

### 3.1. GENERAL OVERVIEW OF PHONOLOGICAL CHANGE FROM PB TO THE TARGET ZONE F LANGUAGES

3.1.1. Vowel sytems in Zone F:7V and $7>5$

All 7 of the reconstructed PB vowels correspond quite well with Zone F vowel inventories
(See Appertix 2). The PB vowel system can be represented as
(4)

| FRONT | MID | BACK |  |
| :--- | :--- | :--- | :--- |
| i/ii |  | u/uu | Super Close |
| I/II |  | U/UU | High |
| e/ee |  | o/oo | Middle |
|  | a/aa |  | Low |

Guthrie (1967-71) represents the vowels as follows: $/ / \mathrm{ij}(\mathrm{i} / \mathrm{ii})$, $/ \mathrm{ii}(\mathrm{I} / \mathrm{II})$, e/ee (e/ee), a/aa (a/aa), $0 / \sigma 0$ (o/oo), u/uu (U/UU), $\psi^{\prime} / \varphi(u / u u)$. The convention used in this thesis is in brackets, also shown in (4). The phoneme $/ \mathrm{e} /$ is the IPA [ $\varepsilon$ ], and /o/ is the IPA [0]. For ease of representation, the convention adopted by Nurse (1979a), Maganga and Schadeberg (1992) and Batibo (2000), among others is followed.

In Zone F, the languages which have retained the 7LS vowels are KISukuma, KINyamweezi.
KIRImi, KıniLaamba, KıKımbu, KiiRaygi, ICIWuungu and their varieties. Those which have merged or seem to be in the process of merging $i / / i i$ and $1 / \mathrm{II}$ into $i / / i$ are mainly SiSuumbwa, KiBende, KeeMbuwe and their varieties. SiSuumbwa, KiBende, KeeMbuwe and their varieties have mainly merged superclose $/ \mathrm{I} /$ and $/ \mathbf{u} /$ with the high $/ \mathrm{I} /$ and $/ \mathrm{U} /$ vowels respectively into one quality of high $/ \mathrm{i} /$ and $/ \mathrm{L} /$, and retained the rest. On the other hand, in KeeMbuwe, /I/ merged with/e/ and / $/ \mathrm{d} /$ with $/ \mathrm{o} /$, giving $/ \mathrm{e} /$ and $/ \mathrm{o} /$ respectively, as shown in (5) ${ }^{4}$

The reduction from 7 vowels is rather surprising, especially taking into account Dempwolffs (1912:15) observation that. KeeMbuwe had 9 vowels, represented as $!(y), i(y)$, e. e, a. o. o. $u$ (w), and $u$. This may be explained by the fact that Dempwolff analyzed his data phonetically not phonologically.

[^19]
## (5) KeeMbuwe

0
0
e e I

0

๒ .

In SiSiloombo, SiYoombe, KiLoongo, and KiBende, /I/ and /U/were lost phonologically when the superclose and the high vowels merged, as shown in ( 6 ), although the high $/ 1 /$ and /U/ appeared occasionally phonetically. Of the five varieties which have changed from 7 V to 5 V languages, KiBende and KiLoongo are the most consistent. The others like SiSuumbwa borrow words with / / / and /U/ and appear to be 7V
(6) SiSiloombo, SiYoombe, KiLoongo, and KiBende
i
u
v

I

This merging of the $i / i i$ and $I / I^{5}$ vowels to remain with SLS is normally associated with a process known as Bantu Spirantization (BS) in some eastern Bantu languages. The process is a weakening of a stop whereby it became a fricative in front of the super close vowels $\mathrm{j} /$ and $/ \mathrm{u} /$. On the other hand, a few spirantizing languages do not merge the two qualities Because of that. it is not clear how and why an association is posited when there are such exceptions. The two processes may in fact be unrelated, co-occurring only fortuitously

According to our data, the $7 \mathrm{~V} / 5 \mathrm{~V}$ distinction divides Zone F in two groups, although this is not a unique Zone F feature. Many other zones have members with different vowel inventories in their membership (Nurse 1979), as is the case with the Southern Highlands group where the languages are predominantly 7V, although KiBena, KiPangwa and KiHehe are 5LS, in M30, CiNdali is 5LS, while KIN yakyusa is 7 V : P 20 is divided equally into 5 LS and 5 S : in North Nyanza, LuGanda and LuSoga are 5LS, while LuGwere is 6 LS with $/ \mathrm{i}$ / and /r/, but only /o/.

On the other hand, SiSuumbwa, KiBende and KeeMbuwe are $5(\mathrm{~L}) \mathrm{S}$ resembling language groups like some G50, G40, G20, G30, EJ30, EJ20, EJ25 and DJ60, among others (Nurse

[^20]1979, 1988). In eastern Bantu the 7V languages are fewer, and these include the majority of Zone F, E50, P10, and some G60.

The presence of similar vowel systems in other zones makes the SLS feature a poor candidate for a good diagnostic tool of classification, unless it is taken together with BS

KiBende and SiSiLoombo, SiYoombe and KiLoongo have merged their super close $/ i /$ and $/ \mathrm{L} /$ and high $/ \mathrm{L} /$ and $/ \mathrm{J} /$ vowels to $/ \mathrm{I} /$ and / $\mathrm{u} /$ respectively, while KeeMbuwe has merged the high vowels $/ \mathbf{I} /$ and $/ \mathrm{J} /$ with the mid $/ \mathrm{e} /$ and $/ \mathrm{o} /$ vowels respectively, resulting in $/ \mathrm{e} /$ and $/ \mathrm{o} /$ / The following procedure was used to obtain the results:
(i) From the list of the 1036 words used in the study, all words with $/ \mathrm{L} /$ and $/ \mathrm{v} /$ were counted (ii) It was found that /I/ occurred in 184 words and/J/ in 279
(iii) Out of the 184 words with $/ \mathrm{I} /, 34$ or $18.5 \%$ were chosen, while for $/ \mathrm{U} /, 39$ words or $14.0 \%$ out of the 279 words were selected.
(iv) The justifications for choosing those words as a representative sample were that:
(a) they were likely to be represented in all 22 varieties;
(b) they were mainly from core vocabulary based on the assumption that its occurrence is expected in any language;
(c) the target vowels were not followed by other vowels so that no gliding would occur. so as to avoid the assimilatory influence of other adjacent vowels.

The total number of the selected words in each category was judged to be representative because each group contained more than $10 \%$ of the 184 and 279 word sample respectively. The conclusions were therefore expected to be reliable, at least for Zone F.

Based on the data, the following conclusions were drawn, as shown in Tahle 3.1 and 3.2. and in the following rule of thumb based on three conditions: (a) if all words with /I/ or / J/are counted from a list of at least 1000 words from PB; (b) if at least 200 words are extracted for each phoneme, and (c) if from those 200 words at least 40 words are caretully chosen so that they represent equitably all the varieties, then the following will be true in Zone F where 200 on average were used and 35 selected and actually used:
(i) 10 or less words consistently showing vowel/phoneme variation will indicate a stable 7 V language;
(ii) 11-14 words will indicate a possibly changing language from 7 V to 5 V ;
(iii) 15-35 words will indicate a clear 5 V language.

From (i) to (iii), if half the phonemes change consistently away from the values of the protolanguage, then it indicates a 5 V language. On the other hand, the cut-off point of how many words should be used may not be so precisely determined because it involves judgement based on the data being used.

A shortcut method to determine whether a vowel system was 7 V or 5 V in other Bantu languages deriving from PB would be to take 30 common core items, do the counting and then test to see how many changes have taken place in that language or group of languages. A modified chart as represented by Tahle 3.1 and 3.2 could be used to tally the resuits.

Tahle 3.1. TI and 5l' varieties in Zone F: II/ test

| Number of Vowel changes out of 34 words | Type and number of languages (varieties) | Examples with number of changes in brackets |
| :---: | :---: | :---: |
| $\begin{gathered} 0-6 \\ \text { (less than } \\ 18 \% \text { ) } \end{gathered}$ | 7 V (17) | $\begin{gathered} \text { F31a (1), F31b (1). F21a (2), F21c (2). F22a (2), F22b (3), } \\ \text { F24a (3).F22d (3).F31c (3), F32a (4). F32b (4), F32c (4), } \\ \text { F22e (4), F24b (4).F33 (4).F21b (4),F25 (6) } \end{gathered}$ |
| $\begin{gathered} 7-20 \\ \text { (less than } \\ 59 \% \text { ) } \end{gathered}$ | 7V/5V (0) | - |
| $21+$ (more than 62\%) | 5 V (5) | F10 (28). F23a (26), F34 (23), F23b (21),F23c (21) |

Table 3.2.71 chad $51^{\circ}$ varieties in Zone F: / U/ hest

| Number of Vowel changes out of 39 words | Type and number of languages (varieties) | Examples with number of changes in brackets |
| :---: | :---: | :---: |
| 0-8 | 7 V (17) | $\begin{gathered} \text { F31a (1), F31b (2), F22b (2), F21b (3), F22a (3), F32b (3), } \\ \text { F21a (4),F21c (4), F31c (4), F32a (4), F24a (5), F22d (6), } \\ \text { F25 (6), F24b (6), F33 (7), F32c (8), F22e (8) } \end{gathered}$ |
| $\begin{gathered} 11-14 \\ (21-50 \%) \end{gathered}$ | 7V/5V (0) | - |
| 15+, (more than 51\%) | $5 \mathrm{~V}(5)$ | F23b (26), F34 (21), F10 (21), F23a (21), F23c (20) |

According to Tahle 3.I and 3.2. on average, a consistent maximum of 8 phonemic changes would mean retention of clear 7 V . A minimum $50 \%$ change pattern is required to qualify a language for a stable 5 V . Such a formula can also be illustrated by KeeMbuwe's merging of the high with mid vowels. According to this formula as applied in Tables 3.I and 3.2. and summarized in Tah/e 3.3 for/I/, from a total of 31 words used, 7 or less phonemes retaining their Proto Bantu quality are not significant to make a language 7V. Conversely. 23 phonemes out of those 31 words changing from their original Proto Bantu quality ${ }^{*} I t \mathrm{t} / \mathrm{/}$ is indicative of a clear 5 V language, with a permanent shift to that status. Hence, because of the high figures of $71.9 \%$ and $65.6 \%$ scales of change in KeeMbuwe from $i / r$ to $/ e /$ and from $\mathrm{u} / \mathrm{U}$ to /o/respectively, such a change is regular.

Table 3.3 I and or change in KeeMhnve

| \# of Words with / // (31 out 34 or 91\%) |  |  | \# of Words with / \%/ ( 32 out of 39 or 82\%) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $r>t$ | $r>$ i | $t>e$ | $u>0$ | $u>u$ | $u>0$ |
| 7 (23.6\%) | 1(3.2\%) | 23 (71.9\%) | $9(28.1 \%)$ | $2(6.2 \%)$ | 21 (65.6\%) |

Tahbe 3.4. Evolution of * $I$ in Zome F and 7V 5V

| PB Word and Gloss | Varieties with word | Varieties retaining $/ L^{\prime}$ | Languages with a vowel other than $/ L^{\prime}$ | Varieties with a different form |
| :---: | :---: | :---: | :---: | :---: |
| *-bI bad | 21 | 8 | F23a. F23b. F23c. F21a. <br> F21c, F21b. F22b. F22a. <br> F22e, F22d, F10, F25, F34 <br> all have fil (13) | F33 (Used as a verbal) (1) |
| -(n)yuki 'honey' | 22 | 16 | F23a /i/, F23b /i/, F23c /i/, <br> F22e $/ \mathrm{iV}, \mathrm{F} 10 \mathrm{i} / \mathrm{i}, \mathrm{F} 34 / \mathrm{e} /$ (6) | (0) |
| "bidr 'body' | 21 | 17 | F23a /iv. F23b /i/, F23c /i/. $\mathrm{F} 34 \mathrm{lel}(4)$ | F10 (1) |
| - -yami chief' | 3 | 0 | F23a /i/, F23b /i/, F10 /i/ (3) | The rest (19) |
| - cl country | 22 | 18 | $\begin{aligned} & \text { F23a } / \mathrm{i} / \text { F23b } / \mathrm{id} . \mathrm{F} 10 \mathrm{ii} \text {, } \\ & \mathrm{F} 32 \mathrm{c} / \mathrm{e} / \text { (4) } \end{aligned}$ | (0) |
| *-dtm- 'cultivate' | 22 | 17 | $\begin{aligned} & \text { F23a /i/, F23b /i/, F23c fi/, } \\ & \text { F10 /i/, F34 /e/ (5) } \end{aligned}$ | (0) |
| - -drd- cry, wail | 22 | 18 | $\begin{aligned} & \text { F23c /i/, F10 /iv, F32a /Ø/, } \\ & \text { F34 /e/ (4) } \end{aligned}$ | (0) |
| '-yanik- 'dry. vt' | 21 | 9 | F23a /i/, F23b /it, F23c /i/, F21a itl, F21b iil. F22a fi/, F22e /i/. F10 /i/. F32b /i/. F24ba /iv, F25 /if, F34 /e/ (12) | F31b (1) |
| *-gr 'egg' | 20 | 17 | F23a /il, F23b hil. F31c /ie/ (3) | F23c, F32c (2) |
| *-dido 'fire' | 6 | 1 | $\begin{aligned} & \text { F23a } / i /, \text { F23b } / i /, \text { F23c } / i \% . \\ & \text { F22d } / i /, F 10 / i /(5) \end{aligned}$ | F21a, F21c, <br> F21b, F22b. <br> F22a, F22e. <br> F31a, F31b. <br> F31c. F32a. <br> F32b. F32c. <br> F24ba, F24a. <br> F33. F34 (16) |
| *-y1b(IdId)- <br> 'forget' | 14 | 10 | F23c/e/, F22b/ii, F31a if/, F34/e/ (4) | $\begin{aligned} & \text { F23a, F23b. } \\ & \text { F22a, F22e, } \\ & \text { F22d, F10. F33. } \\ & \text { F32b (8) } \end{aligned}$ |


| PB Word and Gloss | Varioties with word | Varieties retaining /I/ | Languages with a vowel other than $/ v^{\prime}$ | Varieties with a different form |
| :---: | :---: | :---: | :---: | :---: |
| *-pini 'handle, haft' | 22 | 17 | $\begin{aligned} & \text { F23a /i/, F23b /i/, F23c /i/, } \\ & \text { F10 /i/, F34/e/ (5) } \end{aligned}$ | (0) |
| "-cubr 'leopard' | 17 | 15 | F24a /ii, F24ba /i/ (2) | $\begin{aligned} & \text { F23a, F23b, } \\ & \text { F23c, F10, F25 } \end{aligned}$ <br> (5) |
| "-tima liver" | 22 | 14 | ```F23a /i/, F23b /i/, F23c /i/, F21b /e/, F10 /i., F32b /i/. F24a/e/, F24ba/e/(8)``` | (0) |
| *-yingr 'many | 20 | 15 | $\begin{aligned} & \text { F23a fi/, F23b /i/, F23c } / \mathrm{i} / \text {, } \\ & \text { F10 /i/, F25 /i/ (5) } \end{aligned}$ | F33. F31c (2) |
| "-jtda 'path' | 21 | 14 | ```F23a /i/, F23b /i/, F32a /v/, F32b /i/, F32c /i/, F10 /i/, F34 /e/ (7)``` | F23c (1) |
| *-drp- 'pay' | 22 | 17 | $\begin{aligned} & \text { F23a /i/, F23b /i/, F23c } / \mathrm{i} / \text {, } \\ & \text { F10 /i', F34 /e/ (5) } \end{aligned}$ | (0) |
| *-gadr 'stiff porridge' | 21 | 14 | $\begin{aligned} & \text { F23a /i/, F23b } / \mathrm{il}, \mathrm{~F} 32 \mathrm{~b} / \mathrm{i/}, \\ & \text { F32a /e/, F32c } / \mathrm{e} / \mathrm{l}, \mathrm{~F} 10 \mathrm{li}, \\ & \text { F34/e/ (7) } \end{aligned}$ | F23c (1) |
| "-brrk- 'put, place | 13 | 10 | F23c $\mathrm{il} / \mathrm{F} 10$ /i/, F34 /e/ (3) | $\begin{aligned} & \text { F23a, F21a, } \\ & \text { F21b, F22b, } \\ & \text { F22a, F22e, } \\ & \text { F22d, F24a, } \\ & \text { F24ba ( } 9) \end{aligned}$ |
| *-yım- 'pull up' | 22 | 18 | F23b /it, F23c /e/, F10 fi , F34 /e/ (4) | (0) |
| '-kupt 'short' | 20 | 17 | F25 /i/, F33 /v, F34 /e/ (3) | F23c, F10 (2) |
| '-yımbo 'song' | 21 | 17 | $\begin{aligned} & \text { F23a } \mathrm{II}, \text { F10 fil. F33 } \mathrm{II} . \\ & \text { F34 /e/ (4) } \end{aligned}$ | F23c (1) |
| $\begin{aligned} & \text { "-yim(tdid)- } \\ & \text { 'stand' } \end{aligned}$ | 21 | 17 | $\begin{aligned} & \text { F23a } / i \prime \text {, F23c } / i / \text {, F10 } / \mathrm{it} \text {. } \\ & \text { F34 } / \mathrm{e} /(4) \end{aligned}$ | F32a (1) |
| *-kıda 'tail' | 19 | 15 | $\begin{aligned} & \text { F23b } \mathrm{fi}, \mathrm{~F} 23 \mathrm{c} / \mathrm{i} /, \mathrm{F} 10 \mathrm{~N}, \\ & \text { F34 } / \mathrm{e} /(4) \end{aligned}$ | $\begin{aligned} & \text { F32a, F32b, } \\ & \text { F32c (3) } \end{aligned}$ |
| *-gin- thick, fat' | 17 | 12 | F23a /it, F23b /i/, F23c /i/. F32a /e/, F32c /e/ (5) | $\begin{aligned} & \text { F10, F31c, F25, } \\ & \text { F33, F34 (5) } \end{aligned}$ |
| *-dimi 'tongue' | 22 | 18 | F23a /i/, F23c नi/, F10 fi , F34 /e/ (4) | (0) |


| PB Word and Gloss | Varieties with word | Varieties retaining $/ I^{\prime}$ | Languages with a vowel other than /t/ | Varieties with a different form |
| :---: | :---: | :---: | :---: | :---: |
| - -tr tree' | 18 | 13 | $\begin{aligned} & \text { F23a } / \mathrm{i} /, \mathrm{F} 23 \mathrm{c} / \mathrm{i} /, \text { F } 10 \mathrm{li} / \text {. } \\ & \text { F32c/e/, F34 /e/ (5) } \end{aligned}$ | F31a. F31b. <br> F24ba, F25 (4) |
| "-bidr two' | 22 | 17 | F23a /i/. F23c /i/, F22d /i/, F10 /i/, F34/e/ (5) | (0) |
| *-bicr unripe' | 21 | 16 | $\begin{aligned} & \text { F23a /i/, F23b /i/, F23c /i/. } \\ & \text { F10 /i/, F34/e/ (5) } \end{aligned}$ | F32a (1) |
| *-yim- upright' | 21 | 16 | F23a /i/, F32c /el, F25 fit, F10 it', F34 le/ (5) | F31c (1) |
| *-grdr 'warthog' | 22 | 19 | F23a $\mathrm{fi}, \mathrm{F} 23 \mathrm{c} \mathrm{fil}, \mathrm{F} 10 \mathrm{Ni}$ (3) | (0) |
| *-kI what' | 15 | 10 |  | $\begin{aligned} & \text { F23a, F31a, } \\ & \text { F31b, F31c, } \\ & \text { F32a, F32b, } \\ & \text { F32c (7) } \end{aligned}$ |
| *-dirno 'work' | 22 | 16 | F23a /iv, F23b /it, F23c /i/, F10 ii/, F31c /i/, F34/e/ (7) | (0) |

Table 3.5. Eiohtition of * $V$ in Zome F and 7I' 5V

| PB Word and Gloss | Varieties with word | Varieties retaining / $\pi /$ | Languages with a vowel other than $/ a$ ' | Varieties with a different form |
| :---: | :---: | :---: | :---: | :---: |
| -pute 'abscess' | 12 | 0 | F23a, F23b, F23c, F21a, F21c, F21b. F22e, F10, F31c. F32c, F24a, F24ba All /u/ (12) | ```F22b, F22a, F22d. F31a, F31b. F32a. F32b. F25, F33. F34 (10)``` |
| *-dum- 'bite' | 21 | 0 | All have /u/ (21) | F10 (1) |
| *-tuk- 'abuse. insult' | 21 | 18 | F23b/u/, F10 /u/, F34 $/ 0 /$ (3) | F23C (1) |
| - dogu brother. relative' | 13 | 11 | $\mathrm{F} 23 \mathrm{c} / \mathrm{u} / \mathrm{F} 23 \mathrm{~b} / \mathrm{u}^{\prime}(2)$ | $\begin{aligned} & \text { F25, F34, F23c, F10, } \\ & \text { F31a, F31b, F31c, } \\ & \text { F32b, F33 ( } 9 \text { ) } \end{aligned}$ |
| *-kunguda 'crow' | 17 | 15 | F22e/u/, F23b/u/ (2) | $\begin{aligned} & \text { F22d, F23a, F23b, } \\ & \text { F23c, F10 (Blank) (5) } \end{aligned}$ |


| PB Word and Gloss | Varieties with word | Varieties retaining ( 01 | Languages with a vowel other than /of' | varieties with a different form |
| :---: | :---: | :---: | :---: | :---: |
| *-ciku/*-tiko 'day' | 18 | 13 | $\begin{aligned} & \text { F23a } / \mathrm{u} / \text {, F23b } / \mathrm{u} / \text {, } \\ & \text { F22e } / \mathrm{u} / \mathrm{F} 33 / \mathrm{l} / \text {, F34 } \\ & \text { /o/ (5) } \end{aligned}$ | $\begin{aligned} & \text { F10, F23c, F31a. } \\ & \text { F31b (4) } \end{aligned}$ |
| "gud- buy | 21 | 16 |  | F25 (1) |
| $\begin{aligned} & \text { "-yijod- 'become } \\ & \text { full' } \end{aligned}$ | 11 | 10 | F23c/u/ (1) | ```F22b, F22a, F22e, F22d, F10, F33, F23b, F23a, F21a, F21c. F21b (11)``` |
| *-budi 'goat' | 22 | 20 | F10/u/.F34 /o/ (2) | (0) |
| --kud- 'grow' | 22 | 18 | F23b $/ \mathrm{L} / \mathrm{F}, \mathrm{F} 2 \mathrm{c} / \mathrm{c} /$ /, F10/ul, F34 (ol (4) | (0) |
| *-kudo 'great, big' | 16 | 14 | F23b/u/ F10/u/ (2) | $\begin{aligned} & \text { F23c. F21b. F34. } \\ & \text { F22b, F22a. F21a (6) } \end{aligned}$ |
| *-yangu 'haste" | 20 | 15 | $\begin{aligned} & \text { F23a } / \mathrm{u} / \text { F } 23 \mathrm{~b} / \mathrm{u} / \text {, } \\ & \mathrm{F} 23 \mathrm{c} / \mathrm{u} / \text {, } \mathrm{F} 10 / \mathrm{o} / \text {, } \\ & \mathrm{F} 31 \mathrm{~b} / \mathrm{o} /(5) \end{aligned}$ | F31c, F25 (Blank) (2) |
| "-dundo 'heap | 16 | 11 | ```F32a/u/, F32b/u/. F23b/u/, F23c/u/, F24ba/u/ (5)``` | $\begin{aligned} & \text { F22d. F10. F31b. } \\ & \text { F23a, F21a, F34 (6) } \end{aligned}$ |
| -yokr 'honey' | 22 | 17 | $\begin{aligned} & \mathrm{F} 23 \mathrm{a} / \mathrm{o} /, \mathrm{F} 23 \mathrm{~b} / \mathrm{o} / \text {, } \\ & \mathrm{F} 23 \mathrm{c} / \mathrm{ol} / \mathrm{F} 10 \mathrm{lu} / \text { /, } \\ & \mathrm{F} 34 / \mathrm{ol}(5) \end{aligned}$ | (0) |
| --dome husband | 6 | 1 (F25) | $\begin{aligned} & \mathrm{F} 23 \mathrm{a} / \mathrm{u} / \text {. F23b } / \mathrm{w} / \\ & \mathrm{F} 22 \mathrm{~d} / \mathrm{u} / \mathrm{F} 33 \mathrm{~d} / \\ & \mathrm{F} 34 \mathrm{lo} /(5) \end{aligned}$ | $\begin{aligned} & \text { F23c, F21a, F21c, } \\ & \text { F21b, F22b, F22a, } \\ & \text { F22e, F31a, F31b, } \\ & \text { F31c, F32a, F32b, } \\ & \text { F32c, F24a, F24ba, } \\ & \text { F10 (16) } \end{aligned}$ |
| --bud(ag)- 'kill' | 17 | 16 | F34 $/ 0 / 1$ (1) | $\begin{aligned} & \text { F10, F23a, F23b, } \\ & \text { F23c, F25 (5) } \end{aligned}$ |
| -cubr 'leopard' | 16 | 15 | F31c/u/ (1) | $\begin{aligned} & \text { F10. F32b, F25, F23a, } \\ & \text { F23b, F23c (6) } \end{aligned}$ |
| *-godu 'leg, foot' | 21 | 17 | F23a /u/, F23b /u/, F23c/u/, F10/u/ (4) | F25 (1) |


| PB Word and Gloss | Varieties with word | Varieties refaining las | Languages with a vowel other than /ol | Varieties with a different form |
| :---: | :---: | :---: | :---: | :---: |
| *-poupo 'lung' | 16 | 15 | F33 /u/ (1) | $\begin{aligned} & \text { F22a (Blank), F10. } \\ & \text { F23a. F23b. F23c. } \\ & \text { F21b (6) } \end{aligned}$ |
| '-bo 'mosquito' | 20 | 15 | ```F23a /u/, F23b /u/, F22e/u/, F24ba /w/ F34 /o/ (5)``` | F33, F10 (2) |
| "-buomb- mould | 21 | 16 | $\begin{aligned} & \text { F23a } / u / \text {, F23b } / u / \text { / } \\ & \text { F23c } / u / \text { F10 } / u / \text {, } \\ & \text { F34 } / 0 /(5) \end{aligned}$ | F25 (1) |
| '-tiku 'night' | 19 | 15 | $\begin{aligned} & \mathrm{F} 22 \mathrm{~d} / \mathrm{u} / \mathrm{F} 10 \mathrm{~s} / \mathrm{u} / \\ & \mathrm{F} 24 \mathrm{a} / \mathrm{u} /, \mathrm{F} 34 / \mathrm{u} /(4) \end{aligned}$ | F23a, F23b, F23c (3) |
| - -puda 'nose ${ }^{+}$ | 11 | 9 | F33 /u/, F34 /0/ (2) | $\begin{aligned} & \text { F22b. F22e. F22e. } \\ & \text { F22d. F23a. F23b. } \\ & \text { F23c. F21a, F21c. } \\ & \text { F21b. F10 (11) } \end{aligned}$ |
| -dugud- 'open' | 18 | 3 | ```F32a /u/, F23b /u/, F32c/u/, F10/u/, F34/o/(5)``` | F23c, F22d, F25, F33 <br> (4) |
| *-nto 'person' | 22 | 16 | F23a /u/. F23b/u/. <br> F23c /u/, F22d/u/. <br> F10 /u/, F34/0/(6) | (0) |
| *-kuonda 'pigeon' | 17 | 6 | F23c /U/, F23c/u/. F21a/u/, F21c/u/, F22b /u/, F22e/u/, F22d/u/F22a /u/, F10/u/, F32b/u/, F32c/u/ (11) | $\begin{aligned} & \text { F23b (Blank), F33 } \\ & \text { (Blank), F21b, F24ba, } \\ & \text { F34 (5) } \end{aligned}$ |
| *-nungu porcupine | 17 | 15 | F10/u/. F32a/u/ (2) | $\begin{aligned} & \text { F31c, F22a (Blank). } \\ & \text { F23a, F23b, F23c ( } 50 \end{aligned}$ |
| *-nongo/ nyongo 'pot' | 21 | 16 | $\begin{aligned} & \text { F23a /u/, F23b } / \mathrm{u} / \text {, } \\ & \text { F23c } / \mathrm{u} / \text {, F33 } / \mathrm{/} / \text {. } \\ & \text { F34 } / \mathrm{l} /(5) \end{aligned}$ | F10 (1) |
| *-nyo 'salt' | 17 | 0 | 13 have /u/, except F23c, F22d. F32c. F34 with /ol (4) | F10. F31a, F31b. F24ba, F33 (5) |
| *-yikut- "be satiated' | 21 | 17 | F23a /u/, F23b /u/, <br> F10/u/, F34 /0/ (4) | F23c (1) |


| PB Word and Gloss | Varieties with word | Varieties retaining $10 /$ | Languages with a vowel other than /ol | Vanieties with a different form |
| :---: | :---: | :---: | :---: | :---: |
| *-beyo 'seed' | 17 | 17 | (0) | $\begin{aligned} & \text { F23a, F23b, F23c. } \\ & \text { F22d. F10 (5) } \end{aligned}$ |
| -tum- 'send' | 20 | 15 | $\begin{aligned} & \text { F23a /u/, F23b } / \mathrm{u} / \text { / } \\ & \text { F23c /u/. F10 /u/, } \\ & \text { F34 /o/ (5) } \end{aligned}$ | F22a, F31b (2) |
| *-dombo 'sister' | 17 | 14 | $\begin{aligned} & \mathrm{F} 23 \mathrm{a} / \mathrm{u} /, \mathrm{F} 23 \mathrm{~b} / \mathrm{u} / \text {, } \\ & \mathrm{F} 10 / \mathrm{u} /(3) \end{aligned}$ | $\begin{aligned} & \text { F23c, F31b, F32D. } \\ & \text { F32c, F34 (5) } \end{aligned}$ |
| *-tantato 'six' | 11 | 10 | F34 /o/ (1) | $\begin{aligned} & \text { F23a, F23b, F23c, } \\ & \text { F22b, F22e, F22d } \\ & \text { F10, F24a, F24ba } \\ & \text { F25 (Blank) (11) } \end{aligned}$ |
| *-todo 'sleep' ( n ) | 17 | 12 | $\begin{aligned} & \mathrm{F} 23 \mathrm{a} / \mathrm{u} / \mathrm{F} 23 \mathrm{c} / \mathrm{u} / \text {, } \\ & \mathrm{F} 32 \mathrm{c} / \mathrm{o} / \mathrm{F} 10 / \mathrm{u} / \\ & \mathrm{F} 34 / \mathrm{o} /(5) \end{aligned}$ | $\begin{aligned} & \text { F31a, F31b, F32a, } \\ & \text { F24a, F24ba (5) } \end{aligned}$ |
| *-gomba sterile person | 20 | 16 | F23b /u/, F23c/u/. F10/u/. F34 /o (4) | F32c, F32b (2) |
| *-nte 'thing' | 21 | 15 | $\begin{aligned} & \mathrm{F} 23 \mathrm{a} / \mathrm{u} /, \mathrm{F} 23 \mathrm{~b} / \mathrm{u} / \\ & \mathrm{F} 23 \mathrm{c} / \mathrm{u} / \text {, } \mathrm{F} 22 \mathrm{e} / \mathrm{L} / \text { / } \\ & \mathrm{F} 10 / \mathrm{L} / \mathrm{F} 32 \mathrm{a} / \mathrm{u} /(6) \end{aligned}$ | F34 (1) |
| - tatu three' | 22 | 13 | F23a/u/. F23b/u/. F23c /u/. F32a/u/, F32c/u/ F10/u/, F24a/u/, F24ba/u/. F34/0/ (9) | (0) |
| '-yedu 'white' | 14 | 8 | F22d /u/, F32c /u/. <br> F24a /u/. F24ba/u/. <br> F33/u/F34/0/ ((6) | $\begin{aligned} & \text { F23a, F23b, F23c. } \\ & \text { F10. F21a, F21b. } \\ & \text { F22b. F22a (8) } \end{aligned}$ |

### 3.1.2. Bantu Spirantization (BS)

Bantu Spirantization is a phonological lenition rule whereby Proto Bantu (PB) consonants. represented as plosives, weaken to become fricatives in front of the Proto Bantu superclose (SC) vowels *i and * $u$. This process occurs in many of the Bantu languages and their
varieties. As a rule of thumb, in most of Bantu, the plosives ${ }^{*} p,{ }^{*} t,{ }^{*} c,{ }^{*} k,{ }^{*} b,{ }^{*} \mathrm{~d},{ }^{*} \mathrm{j}$, and ${ }^{*} g$ followed by superclose *i and *u weaken, change to fricatives and become different from those followed by lower vowels *I, *e, *a, *o, *v and their long counterparts. In other words, in languages with BS, the reflexes of stops before PB [+superclose] must be different from those before PB [-superclose], otherwise, it is not Bantu Spirantization. While both are assimilatory processes, Bantu Spirantization differs from palatalization in that while BS refers specifically to the two superclose vowels $/ i /$ and $/ \mathrm{u} /$ modifying Proto Bantu plosives to be fricatives; palatalization involves front vowels generally which assimilate consonants towards the hard palate, and hence acquiring the place features of the hard palate.

Bantu Spiranzation is also known by the general name of (consonant) mutation (Hyman 1994:85, Zoll 1995). Hinnebusch and Nurse (1981:51) define it as that shift, or series of shifts wherein the Proto Bantu (PB) segment *p. *t. *k, *B, *I and *G when followed by the Proto Bantu close vowels * $\mathfrak{j}$ and * $y$, become fricatives (spirants) or affricates... This process is realized differently by the different Zone F varieties as shown in the examples below. The patterns of this variation may be a diagnostic criterion in classification, especially if a distinction is made between regular BS and the associated 7 V to 5 V reduction and palatalization. The examples below show the superclose and other lower vowels indicating the effects on the plosives for each group of vowels. In the examples, the regular reflexes of PB *p, *b, ${ }^{*} \mathrm{t},{ }^{*} \mathrm{~d},{ }^{*} \mathrm{c},{ }^{*} \mathrm{j},{ }^{*} \mathrm{k}$, and ${ }^{*} \mathrm{~g}$ are indicated for Zone F , with the members in each group compared with similar varieties from other zones. The aim of including examples from areas
outside Zone $\mathbf{F}$ tests whether Zone $\mathbf{F}$ has any uniqueness in relation to $\mathbf{B S}$. The data for those other language groups or varieties are mainly taken from Nurse ( $1979 \cdot 413-463$ ). The reflexes in other zones, language groups or varieties are provided, unless they were not found in the data. The non-high vowels are also shown since they normally indicate the unmarked. regular reflexes as permanent sound changes from Proto Bantu, contrasting with the results of superclose vowels in the languages in which they have an effect

### 3.1.2.1 Reflexes of ${ }^{2} p / V /$-superclosel


(b) [f] GiRwana/GiAhi, GiAhi, KeeMbuwe
(c) [h] SiSuumbwa, KrSukuma, KiBende [E/10, EI20, some E130, Some E60), (i22, E7th E72. (;30, some E50]
(d) [ $\phi / f]$ Y InyaMunyiganyi ${ }^{6}[E 7!]$
(e)[h/p] KiDakama, KiNyanyeembe, KiKonoongo, SiGalayaanza


#### Abstract

"The other KIRImi varieties with/f) may only be displaying a spelling-pronunciation tradition whereby the earlier writers of the language did not write the / $\phi$ / sound appropriately because of several reasons. These reasons may include technological problems where the typewriters and printing presses of the time had no such fonts, improper sound perception because the recorder had no experience with such sounds in his/her language; or simple carelessness on the part of the earlier writers who had assumed that such details do not count even in the long run. The native speakers in such a situation develop a tendency of hypercorrecting in favour of the privileged, even though misleading and incorrect representation. This is also common in KISukuma (as elsewhere) where proper names with the rounded velar nasal $/ \mathrm{gw} /$, as voiced or voiceless, are written and pronounced by many native speakers of KISukuma by the bilabial nasal $/ \mathrm{mw} /$. The $/ \mathrm{mw} /$ is the nearest sound which the dominant writing traditions in Tanzania (KiSwahili and English) could use. On their part, KiSwahili and English acquired their alphabet from the Roman script which has no such sound, and they passed it on without modification to KISukuma. Examples, with the appropriate sounds in brackets, include common place and personal names like Mwanza ( $\eta_{\text {waanza }}$ ), Mwadui ( $\eta$ waadu $\beta_{i}$ ), Mwandu ( $\eta$ waandU), Mwashi ( $\eta$ waashi), Mabuki (vic) (DwaaßuukI), Mwani (Dhwaani (or [tjwaani], with the diacritic/! underneath or above the nasal showing voicelessness). Muundani (1huundani). Ki申okomo (E71), as an example. seems to have been transcribed correctly.


(f) [h/t] KiiRangi

A significant classificatory observation refers to KIRImi (GiAhi, GIRwana and $\gamma$ InyaMunyinanyi), the only language with [ $t$ ] as the reflex of ${ }^{*} p$ in non-high, unmarked environments. This in part accounts for the fact that KIRImi might have evolved from a different path from the rest of the eastern Bantu languages. In addition the current data differ from Nurse's (1979) in one instance where he shows that F33 has only one retlex. [h], while in our survey [ f$]$ was seen as another active and productive reflex. This may partly be explained by at least three reasons: difference of informant ideolect: a language in the process of being influenced by its neighbour, probably KIRImi; or the inclusion of borrowed words in the count of our survey which could not be detected and removed.

Another significant feature is the widespread distribution of [ h$]$ around the contiguous EJ and G zones. This may suggest common ancestry before dispersal, although absolute dating of such splits may not be ascertained reliably. Acquisition of the feature due to contact may not be a satisfactory explanation unless such widespread distribution implies also long contact for the transfers to take place.

On the other hand KINyamweezi (KIDakama, KINyanyeembe, KIKonoongo and SiGalagaanza) displays an innovation which sets it apart from all of Zone F and North East Bantu in this phonetic environment. It retains both [p] and [h] as regular reflexes before non-
high vowels. This needs an explanation. It is a similar case with $\mathbf{F} 3 ;[\mathrm{h} / \mathrm{f}]$ where two forms co-exist. Why this partial change? This question is answered in 3.2 .5 on the interpretation of glottalization and chronology.

As can be observed in the unmarked environment of *p, each reflex is represented by one. two or three languages with its dialects, as in the example of KrNyamweezi with all its varieties showing " $p>p / h$.

### 3.1.2.2 Reflexes of ${ }^{*} p{ }_{-} i /+$ superclose $/$

(a) [p] KInILaamba, KIKIImbo /Mainly non-spirannizing languatges belong here, beconse *i /ests spirantization in Bantu]
(b) $[\mathrm{h}]$ SiSuumbwa
(c) [f] KISukuma, KIDakama [E50, E62c, G12, EI23, some D.J60]
(d) [f] KiNyanyeembe/SiGalagaanza, KiBende, GiRwana/GiAhi, KiiRangi, KeeMbuwe [ (i22. E7th, G40 E70, G30. EJ25, some D.160, G50, G60]
(e) [s] KIKonoongo [E62a, some (Gf0, some EIIO, some EI30. EI25, parts of EI20, (ifi5] (f) $[\mathrm{s} / \mathrm{f}]$ ICiWuUngu
(g) $[\mathrm{f} / \phi] \mathrm{KıRImi}$

The reflexes in a language like ICrWoungo show an inconsistency, suggesting a mixture of sources, as shown in (7). Five languages (seven varieties) in Zone $\mathbf{F}$ have [f] as the reflex of * $\mathrm{p} / \_\mathrm{i}$, and two languages each retain $[\mathrm{p}]$ and shift to $[\mathrm{f}]$ respectively. It is interesting. however. to note that, among those with [J], one of the variety comes from KINyamweezi while the other three come from KISukuma. It is SiSuumbwa alone which shifts to $[\mathrm{h}]$ in all its varieties, while rCiWoongo shifts to either [s] or [t], although Labroussi (1999 360-1) observes only [f]. While the data were limited in our case, the [s] alternation is especially
convincing since it occurs in words which are quite widespread in Bantu languages in general. unless ICrWoungu got them through borrowing from another language, as shown in (7). The words for 'arrive' -sUk- and 'knife' cish appear suspect because of their radically changed forms, although sina, 'pinch' is plausible. That word with [s] may not be the only one in the ICIWUOngu lexicon, although it is obvious that the evidence for [ $t$ ] is quite solid even with these few words, as Labroussi found out. On the other hand. a mixture of retlexes points to something else, as discussed in Chapter 5
(7) Reflexes of PB *pi in ICIWưŋgo
*-pik- "arrive -soka
*-piga hearthstone' ifiya
*-piu 'knife cist
*-kapi oar IIIMafi
*-pin(i)- 'pinch' -sima

### 3.1.2.3 Reflexes of *p ${ }^{*}$ u/+superclose/

(a) [p] KInILaamba, KIKIImbu?
(b) [f] The rest of Zone F varieties [Many oihers, except E/25/s/and (i60 /h/]

Most of the languages in Zone $\mathbf{F}$ have [f] as the reflex of * $\mathrm{p} / \mathrm{z} \mathbf{u}$. Two languages. KInILaamba and KiKirmbu, retain [p], although due to a mixture of languages, KiKimbu's status is not clear because of having [ f ] in some words. In words like *-pum- 'go out', the likelihood is borrowing, since it is -fuma, an unlikely native form in KıKirmbu.

Sections 3.1.2.1 to 3.1.2.3 suggest the following based on PB *p. KiniLaamba, KIKımbu

KeeMbuve and most of KIRImi have not spirantized because in them, the retlexes of PB *p are identical before all vowels. For the others, SiSuumbwa shows mainly glottalization, and KiBende displays BS. The rest present a mixed picture.

### 3.1.2.4 Refleves of *b _ V /-superchose/

(a) $[\beta]$ SiSiloombo/SiYoombe, KiSukuma, KiNyamweezi, KıRımi) [EイO, $E 7+$ b, (ill, (iкio. E/HO 20, some E50]
(b) $[\beta / b]$ KiLoongo, KiBende, KIKırmbu
(c) $[\beta / O]$ GIR wana/GiAhi
(d) $[\mathrm{b} / \emptyset] \mathrm{K} \mathrm{minHaanzu}$
(e) [D] KınaUshoola/KinILaamba C [some E60. E7th. (i+1) E70. (;30]
(f) $[\mathrm{v}]$ KeeMbuwe $[G 22, J 32, E / 43$, ( $550,(G+1]$
(g) $[\mathrm{v} / O]$ KiiRangi
(h) [w] 1CrWUUngu [Some E60, E7th, (i+10 E70, (i30, some (i60), (;50]

The reflex [b] on its own without any other alternation was not found in Zone F. It seems to occur, most probably, in complementary distribution with another fricative or zero ${ }^{\top}$. This suggests that at initial position it is retained in some languages, while intervocalically it is weakened to the fricative $/ \beta /$ and lost aitogether in others. This made *b one of the most unstable sounds in Zone $F$, since it has changed in all varieties, including in KIKIrmber and KInILaamba, languages which are relatively more conservative. closer to PB than any others in the zone
'In this context, a zero' sound or reflex, also represented as [ 0 ], signities that the sound was lost in that environment. When observations were not made, then no data are recorded, represented by a dash (-). Both 'zero' and 'dash' refer more to observation than to absolute presence or absence of a sound in a language.

### 3.1.2.5 Reflexes of *h_i/+superclose/

(a) [v] SiSiloombo/SiYoombe ICIWuongu, KiiRangi, KeeMbuwe [E7t, (;22, (if0 E70, /15-7. (550. D/60)]
(b) $[\beta]$ KISukuma
(c) $[\beta / v]$ KINyanyeembe/SiGalagaanza/KIKonoongo
(d) $[\beta / f]$ KrDakama
(e) [f] KiBende [E60, (il2, I30, EI25, G52, (i60]
(f) [O] KInILaamba C
(g) $[[\varnothing / b]$ KınaUshoola/KınıHaanzu, KıRımi
(h) $[\beta / \mathrm{b}]$ KIKiImbu
(i) $[z]$ KiLoongo [some (ił3, Rutara]

In the *b sound, it is mainly KiDakama which shows a significant alternation in the reflex between $[\beta / \mathrm{f}]$, a situation likely to be due to having two sources of the reflexes. Others like KIKIImbu $[\beta / b]$ suggest only allophonic variation or borrowing, the later being more probable given the high fidelity of KIKIImbU to Proto Bantu. The KINyamweezi dialects (KINyanyeembe/SiGalagaanza/KIKonoongo), excluding KIDakama, have [ $\beta / \mathrm{v}$ ]. partly suggesting orthographic influences and partly because of the sounds originating from two sources. In the former case, the bilabial fricative $/ \beta$ / in many Bantu languages is represented as $\langle v\rangle$ where it is contused with the regular labiodental $\langle v\rangle$. It is later hyper-corrected both in writing and speech and adopted in the system. KinILaamba and KIRImi usually lose *b.

### 3.1.2.6 Reflexes of *b/_u/+superclose/

(a) $[\beta]$ KISukuma, KIDakama
(b) [O] KınILaamba, KıRImi, KıKıImbu?
(c) [v] SiSiloombo/SiYoombe, SiGalagaanza, ICIWuUngu
(d) [f] KiBende
(e) $[z]$ KiLoongo
(f) [w] KIKonoongo?

Using *b/_u and its reflexes in Eastern African languages alone. Zone F seems unique in having $[\beta]$ among the reflexes. According to Nurse's (1979458) survey of the Eastern African languages, it is the only zone with $[\beta]$ in that environment. Such a pattern is suggestive of a shared history between its members, although close proximity might have played a role. The only varieties in Zone F without any trace of $[\beta]$ are 4: KinILaamba, KiiRangi, KeeMbuwe and ICIWUUŋgu. It is easier to explain Krnilaamba, since it is a conservative language phonologically, retaining traces of [b]. On the other hand, KiiRangi. KeeMbuwe and ICrWưngu are isolated because of their reflexes of ${ }^{*} b$ and this gives more weight to the skepticism in grouping these varieties within Zone F. Normally, the usual process of *b loss is common, in Sabaki, but also in many other Bantu languages (Nurse and Hinnebusch (1993.89-98)
(8) *b loss
$* \mathrm{~b} \rightarrow / \beta /-/ \mathrm{v} / \rightarrow / \mathrm{w} / \rightarrow / 0 /$

Another candidate for that skepticism, KiBende, has some traces of $[\beta]$, indicating that it has some affiliation with the other Zone F varieties. However, that atfiliation may be only geographical too, among others, because it is closest to KiKonoongo, a likely source of borrowing

The evidence for BS based on PB *b is as follows. KIKIImbu. KInILaamba, KiSukuma, some parts of KINyamweezi, K IRImi and maybe KeeMbuwe and KïRangi do not spirantize because they have identical reflexes of PB *b before all vowels. On the other hand. SiSuumbwa, KiBende and ICIWuUngu show BS because the superclose vowel environment is different from the low vowel PB *a.

### 3.1.2.7 Reflexes of ${ }^{*} t /$ _V/-superclose/

(a) $[t]$ All except KiRImi ${ }^{x}$
(b) [R] GIRwana/GiAhi
(c) $[R / t]$ ४InyaMunyinanyi

KIRImi has the voiceless flap [ $R$ ] as an allophone of/t// It becomes [ $t]$ when it is prenasalized (Olson 1964:13). On the other hand, yinyaMunyinanyi (F32c) has double reflex indicating that the allophones seem to be in free variation. For the rest, there is no change from Proto Bantu, just as it is in the majority of other Bantu languages surveyed by Nurse (1979).

### 3.1.2.8 Refleves of * $t /$ _ $i /+$ superclosel

(a) $[t]$ KinıLaamba, KiKirmbu [E65, E62a]
(b) $[\mathrm{R}]$ GIRwana/GiAhi
(c) $[\mathrm{t} / \mathrm{s}]$ (SiSiloombo/SiYoombe, KiLoongo, GinaNtuzu, KiNyanyeembe/SiGalagaanza /KrKonoongo, KiBende, ICiWuUngu, KeeMbuwe" [These have innly /s/: E62c, (; 40 E70),

[^21](330.EN. (i50. (i60]
(d) $\left[t / \int\right]$ KimunaSukuma, JinaKirya, KiDakama [These have omly / /f: G22. E7th, (;23]
(e) $[R / t]$ YInyaM Munyinanyi
(f) $[\mathrm{c} / \mathrm{t}]$ KiiRangi

In Zone F. KIKIImbU (F24) and KInILaamba (F31) continue to show that they are stable phonologically, while the rest show divergence from Proto Bantu. The others like Kisukuma and KINyamweezi indicate double retlexes: the inherited form and a mutated one. Where two reflexes co-exist, one or the other is likely to be the native, regular sound change in that language, while the other may be from a different source. This difference of source is interpreted in Chapter 5. ICrWuOgyu, KiBende and KiLoongo display the double reflex pattern of the majority of Zone $F$ languages with [ $\mathrm{t} / \mathrm{s}$ ] indicating external influence over their phonological processes.

### 3.1.2.9 Refleves of ${ }^{\star_{1} / \_}$/ I +superclose/

(a) [t] KiniLaamba, KiKilmbu, ICrWouggu, KeeMbuwe
(b) [t/s] SiSiloombo, KISukuma, KiDakama, KiNyanyeembe, KiKonoongo, KiBende
(c) [s] SiYoombe [ $\mathrm{C} 232+3 / 34$, Ell7, (i65]
(d) $[\mathrm{s} / \mathrm{c}]$ KiLoongo
(e) $[R]$ GrRwana/GiAhi
(f) $[R / t]$ YrnyaMunyinanyi
(g) [c] KiiRangi[ Gi22, $^{2}$ E7th, E/20 E/II-f]
(h) $[\mathrm{f} / \mathrm{t} / \mathrm{s}]$ SiGalagaanza

The evidence of PB *t/_u suggests that SiSumbwa and KiBende have BS, although they

## ( ( continued)

the phonological stability in this phoneme like KiKirmber and KınILaamba, as indicated in *t _u.
have traces of some non-spirantizing *t. KIKImbu (F24), and KInILaamba (F31), KIRImi (F32) do not show any traces of BS while the rest display a mixed picture like in PB *p. A feature to note in Zone $F$ is the absence of $[f]$ as a reflex of *t which is found in KiChaga (E60), Sabaki (G40/E70), Ruvu (G30), much of Lacustrine (Ej), Kilombero (G50) and Southern Highlands (G60). It is one argument for the validity of Zone F, although as negative evidence it is not as strong as presence of a feature. One of the most interesting case here is that of KiiRangi with its reflex /c/. For many years, if not decades or centuries, it was adjacent to non-Bantu languages like Maasai and Sandawe but seems to have received no influence from them. Instead, KiiRangi shares some features with Bantu languages which are geographically distant, today ${ }^{\prime \prime \prime}$. It is not clear whether such similarity is chance or genetic.
3.1.2.10 Reflexes of ${ }^{*} d /$ V/-superclose/
(a) [I] All, except KiRImi, KiiRangi, KeeMbuwe
(b) $[1 / r]$ KiiRangi, KeeMbuwe
(c) $[0 / / / r]$ KIRImi

### 3.1.2.II Reflexes of *d/_i/+superclose/

(a) [!] KınILaamba, GiRwana/GiAhi, KiKirmbu
(b) $[\mathrm{r}]$ YInyaMunyinanyi, KiiRangi, KeeMbuwe [E60]
(c) [z] ICIWUUngu [E7+h, (i+6) E70, (i30, some E). D.J60, (;50]
(d) [s] KiBende [G12, some EJ30, E/25, G52, some G60]
(e) $[\mathrm{z} / \mathrm{l}]$ SiSiloombo/SiYoombe, KiLoongo, GinaNtuzu, KiNyamweezi
(f) [j/l] KImunaSukuma/JinaKitya [With [j/ only: (i22, G40/E70]

[^22]
### 3.1.2.12 Reflexes of *d/_ul+superclose/

(a) [1] KIniLaamba, KIKirmber
(b) $\{\mathrm{V} / \mathrm{d} / \mathrm{r}]$ KeeMbuwe
(c) $[\mathrm{r} / \mathrm{d}]$ KiiRangi
(d) $[\mathrm{v} / \mathrm{I}] \mathrm{SiSiloombo/SiYoombe}$,
(e) [zil] KiLoongo, GinaNtuzu, KINyanyeembe/KiDakama/KiKonoongo /These hence/z/ ontly: (i23 23313 3. parts of EI20]
(f) [z//dd] KimunaSukuma/JinaKirya
(g) [f/l] KiBende
(h) $[\mathrm{O} / / \mathrm{r}] \mathrm{KIRImi}$


One of the significant features of * $\mathrm{d} /$ /u reflexes is the isogloss joining SiSuumbwa and SiGalagaanza, both of which have [v/I]. On the other hand, KiBende also shares some significant features with SiSuumbwa, although the major difference is in its devoicing of the labio-dental [ v ], and hence the reflex becomes [ $\mathrm{f} / \mathrm{l}]$, a fact observed by Nurse ( $1988: 58$ ). This sharing of phonological features between SiSuumbwa and SiGalagaanza is not found in this context only. Further phonological contexts might cast light on the assumption that SiGalagaanza may be closer to SiSuumbwa linguistically than it is to KINyamweezi, although one can also argue that it is close proximity that makes SiGalagaanza share features with SiSuumbwa. The *d/_u [+superciose] context also strengthens the notion that as individual varieties, KIKıImbu, KinILamba and KıRımi are solid entities, while KISukuma, KINyamweezi and SiSuumbwa each have each some internal coherence. If they have any unity, then it is riddled with unresolved anomalies as displayed by the reflexes. ICiWuungo. KiiRangi and KeeMbuwe seem autonomous in their own right, each displaying occasionally unique features not found in the rest of Zone F members, as with the unique case of

ICIWUOŋgu with [v] as the reflex of *d.

Evidence for BS is solid in KiBende and rCiWuongu, while its absence clear in KInILaamba. KIRImi, KIKIImbo, KeeMbuwe and KiiRaggi. The situation is mixed in SiSuumbwa, KINyamweezi and KISukuma with double retlexes, indicative of interference.

### 3.1.2.13. *K_V [-superclose/

(a) [k] All, except KiRimi, KiKirmbu
(b) $[k(x)]$ GIRwana, $\gamma$ InyaMunyiganyi
(c) $[\mathrm{K}(\mathrm{k})]$ GiAhi. KIKIImbU

The sound * $k$ shares some features with non-high vowels in that the [-high] or [-superciose] feature of the vowels does not have a conflict with the [+back] feature of $/ k /$ which makes $/ k /$ low. It may be this similar feature specification which makes the distribution of $/ k /$ relatively uniform in all of Zone $\mathbf{F}$, except for KIRImi and KIKIImbu, with $[\mathrm{x}]$ as an allophonic alternation occurring in complementary distribution with [ $k$ ]. In KIRimi and KIKIImbu [ $x$ ] occurs only before vowels with the [+back, -high] features, that is $/ \mathrm{a} /$ and $/ \mathrm{o} /$, and not the front and high ones like $/ \mathrm{e} / \mathrm{/} / \mathrm{I} /$, /i/ or $/ \mathrm{u} /$ because they modify the [ +back ] feature of $/ \mathrm{k} /$ by pulling the place of articulation away from regular velar position. Thus, $[x]$ is only phonetic rather than phonological.

### 3.1.2.14. *k/_i/+superclose/

(a) [k] KInILaamba, GIRwana, yInyaMunyiganyi, KIKrımbu-North
(b) $[x]$ GiAhi?
(c) [t] KiLoongo
(d) [c] KımunaSukuma
(e) $[f(k)]$ SiSiloombo, SiYoombe
(f) [f/k] KiDakama, KiNyanyeembe, SiGaiagaanza
(g) [c/k] GinaNtuzu, JinaKirya, KiKimbu South, KiiRangi
(h) $[\mathrm{f} / \mathrm{s}]$ KiBende
(i) $\left[\mathrm{f} / \int\right]$ ICIWuUngu
(j) $[\mathrm{k} / \mathrm{y}]$ KeeMbuwe

The [ $k$ ] reflex is expected in KInILaamba. KIRImi, KIKIImbu, KiiRangi and KeeMbuwe as non-spirantizing varieties. But in KrRImi, two varieties meet the expectation, while GiAhi has $[x]^{11}$. This can be regarded as an allophone of $[k]$, as pointed out above for the low vowels. Here, it has been generalized to the [+high] context as well. In addition, the fricative [ x ] may be due to the palatalizing effect of *i. Likewise, KIKIImbu South has an alternation [ $c / k]$. The $[c]$ is also a likely palatal effect of the verb itself for ${ }^{\text {die }}{ }^{*}$ * $k i-$, rather than spirantization. As well, it may be a transfer from linguistic neighbours like KISukuma whose speakers have immigrated into the Rukwa area in large numbers since the early 1970s. Their numerical strength might have had an immediate impact on KIKrimbe-South. As a strongly conservative variety, KIKIrmbu's innovation might be a recent and limited one in words like [ca] 'die' <*-ki- ${ }^{12}$. Such an innovation causing double reflexes is mainly idiolectal due to

[^23]contact rather than dialectal.

The double reflex phenomenon is explained further in 3.1.3. in discussions about KiSukuma, KINyamweezi and SiSuumbwa where the phenomenon is more widespread. As a rule of thumb, where one of the reflexes in a suspected Bantu Spirantization case includes a stop, then Bantu Spirantization is doubtful. Of the spirantizing varieties in Zone F. only KiLoongo. KiBende and ICrWuongu display a true fricativization without traces of stops in the *k/_i [+superclose] environment. The rest show only traces of Bantu Spirantization, which suggests a contact situation resulting in a transfer of some features.

On the other hand, ${ }^{*} k / i[+$ superclose $]$ shows the most variation of double reflexes where [k] alternates with another sound, a fricative or another stop. the [c]. This is a strong argument for limited Bantu Spirantization in Zone F, since, as Nurse (1979-462) shows, spirantizing languages have [ s ] as a regular reflex before *i. Only KiBende has [s]. KiBende $^{\text {. }}$. can thus be regarded as a spirantizing language, with a five vowel system. On the other hand, both Schadeberg (1995:83) and Guthrie (1967-1971:47) ${ }^{13}$ regard KiTongwe, another name for KiBende/KiTongwe ${ }^{14}$ as 7V. Schadeberg (1995:83) shows that although KiTongwe

[^24](F11) is 7V it has full BS, a position which supports our data on superclose vowels.
However, our data do not only show clear BS , but also show a cleariy 5 V variety.

### 3.1.2.15. *K_u [ + superclose/

(a) [k] KımunaSukuma, GinaNtuzu, KinsLaamba, GiRwana, үInyaMunyiganyi, KıKıImbuSouth, KeeMbuwe
(b) [f] SiSuumbwa, SiGalagaanza, KiBende
(c) $[k$ (f)] JinaKıyya, KiDakama, KiNyanyeembe
(d) $[\mathrm{k} / \mathrm{f}]^{15}$ KiKonooggo, KiKirmbu-North, ICiWuuggu, KiiRangi
(e) $[x /(f)]$ GiAhi

Apart from the varieties with alternations, it is only SiSuumbwa and KiBende which display a consistently Bantu Spirantization system. SiGalagaanza behaves like these two, most probably as an areal influence, since such an affiliation to both KiBende and SiSuumbwa does not end at phonological level alone, but is illustrated by the vocabulary as well. Predictably * $\mathrm{k}=[\mathrm{k}]$ is found in KImLLaamba, KeeMbuwe, and parts of KIKIImbu and KIRImi, and KiSukuma
${ }^{14}$ (...continued)
professor of history at the University of Dar Es Salaam, says that the distinction between KiBende and KiTongwe is not linguistic. It is only geographical since the KiBende speakers reside along the Lake Tanganyika shores while the so-called KiTongwe speakers live in the mountains. The language is one. With the advent of "tribal" labels for the linguistic communities of Africa, the division only helped create two identities which were formerly one entity. Such an argument is not an illegitimate appeal to authority by invoking Táámbila's knowledge of history. It is fairly plausible, since in some literature there are such cases of pseudo-languages and dialects. For instance, KiKonoongo is regarded as a language apart from KiNyamweezi, just as many dialects and some languages like KiLoongo are not even mentioned, mainiy because there is no information about them.
${ }^{15}$ An occurrence of $[\mathrm{k} / \mathrm{f}]$ shows almost equal frequency of distribution, hence a reversed order [ $\mathrm{f} / \mathrm{k}]$ refers to the same equation of the form: 'if $a$ and $b$ have the same values, then the sequences $a \quad b$ and $b i a$ are equal'. Order is therefore not important in such a case.

Clear indications of BS include ICIWuUngu and KiBende. SiSuumbwa also shows some consistency, despite the interference with non-spirantizing elements. KiSukuma and KINyamweezi continue to show the double reflex mixture of spirantizing and non-spirantizing forms and others which do not. KiiRangi also shows double retlexes indicating interference. On the other hand, KIniLaamba, KIKImbu, KIRImi and KeeMbuwe do not show BS

### 3.1.2.16. $\mathrm{H}^{\prime} / \mathrm{V} /$-superclose/

(a) [g] SiSuumbwa, KISukuma, KINyamweezi, KIniLaamba, KIKımbu
(b) $[\mathrm{y}]$ KiBende, KıRimi
(c) $[1 / 2 / O]$ ICrWuUngu
(d) $[\square / v]$ KeeMbuwe, KiiRanggi

Prominent features with the reflexes of *g are the altemations [v] and [O] in KeeMbuwe and KiiRangi, and $[\mathrm{g}]$ and [[0] in ICrWuOgge. This is explored further in 3.I.4.I below. Otherwise, the other varieties display regular occurrences before [-superclose] vowels. This feature in KiiRangi and KeeMbuwe is an important classificatory cue, since it is only they which display such a pattern. It is one feature among several which suggests they descended from a common ancestor or had contact. On the other hand, $[\gamma]$ as a voiced counterpart of [x] seems to result from the non-superclose vowel environment where the [+back] feature causes a friction in the velum, deleting the [ + stop] feature of the *g. This seems a phonetic rather than a phonological reflex, since it was possible to substitute $[\mathrm{g}]$ for $[\mathrm{y}]$ without any loss of meaning in KiBende and KıRImi
3.1.2.17. *g/i i+superclose/
(a) [g] KiLoongo, KISukuma, KiDakama, KiKonoongo, KrniLaamba, KIKirmbu
(b) $[\gamma]$ KIRImi
(c) $[z]$ SiSiloombo, SiYoombe, KiNyanyeembe, ICrWuUngu
(d) [s] KiBende

Due to limited data with *g/ i [+superclose], SiGalagaanza, KeeMbuwe and KiiRangi are not represented. The other members display a consistent pattern of either favouring Bantu Spirantization or not. SiSiloombo and SiYoombe become isolated from KiLoongo in that the later has [g] while they show [z], like KiNyanyeembe and ICIWUOggo. While ICIWounge is a regular Bantu Spirantization candidate, KiNyanyeembe may be due to areal intluence from SiSiloombo/SiYoombe and not from KiBende since KiBende has [s] and devoices spirants regularly (Nurse 1988.59). Within Zone F, the patterns displayed here are good typological clues. Some affiliation is indeed displayed, and if ICIWUUngu is removed as geographically distant, the four remaining ones suggest some areal-based distribution.

North Nyanza (EJ30), Western Highlands (DJ60) and Rutara (EJIO) have [z] too, hence pointing to SiSuumbwa as either a member or has been influenced heavily by them as neighbours

## 

(a) [g] GinaNtuzu, JinaKıya, KiKonoongo, KInILaamba, KIKimbu
(b) [v] SiSiloombo, SiYoombe, SiGalagaanza, ICilVuungu
(c) [t] KiBende
(d) [O] KIRImi, KeeMbuwe
(e) $[\mathrm{V} / \mathrm{g}] \mathrm{KiN}$ yanyeembe
(f) [O/v] KiiRangi
(g) $[z]$ KiLoongo

The conclusions reached here may not be as valid as required since only two words were found in the *g/u [ + superclose $]$ environment, *-jogu elephant' and "-gund- be high (rot) (of meat) Some varieties like KISukuma and KiDakama do not use *-jogu for 'elephant'. and so only one word remained. The informants in KimumaSukuma and KiDakama did not respond to the word for be high', and so both slots became empty for these two varieties For those who answered, however. the responses were consistent with the expected patterns observed in other cases of *g. For instance, KiBende [f]. SiSiloombo [v]. SiYoombe [v] and ICIWOUggu [ V ] showed consistent Bantu Spirantization, while SiGalayaanza [v] followed SiSiloombo and SiYoombe. On the other hand, KiLoongo [z] became more like Rutara, and unlike SiSiloombo/SiYoombe with [v], which was more like Western Highlands like KiRundi, GiHa and KiHangaaza (DJ60), which are immediate neighbours of SiSuumbwa to its west.

A conspicuous case of double reflexes was displayed by KiNyanyeembe [v/g], showing that Bantu Spirantization is not well-established, as indicated in 3.2.1.1.1f In fact, the SiSuumbwa influence may be posited here, whereby $[\mathrm{v}]$ is from SiSuumbwa. and $[\mathrm{g}]$ from KiNyamweezi. KiiRangi's $[0 / \mathrm{v}]$ alternation points to the same feature of absent or weak Bantu Spirantization since the default seems to be [0] rather than [v] Section 3.2. illustrates in some detail such cases of alternation and the type of words in which such processes occur

Despite insufficient data. BS is indicated clearly in KiBende. SiSuumbwa and ICIWuUng
The rest show none. KıRImi, KeeMbuwe and KiiRangi show loss of ${ }^{\text {PB }}{ }^{*} g$ in the superclose vowel environment, although no solid conclusions can be drawn because of limited data

### 3.1.2.19. * $c_{\text {/_V }} /$-superclose/

(a) [s] All, except KınILaamba-Central, KınrHaanzu, KrRimi
(b) [h] KIRImi. KInIHaanzu
(c) $\left\{\mathrm{s} / \int\right\}$ KInxLaamba-Central

One important generalization which can be drawn from $\mathrm{PB}^{*} \mathrm{c} /-\mathrm{V}$ [-superclose] is the status of KInIHaanzu, a dialect of KinILaamba, in relation to KIRImi. They both have [ h ] as the reflex of PB *c with non-high vowels. There are several cases where KiniHaanzu is more similar to KIRImi than it is to KInILaamba. This may have something to do with historical genetic affiliation since it is only KiniLaamba and KIRImi which do not have a regular alternation pattern $[\mathrm{s}]$ in non-high environments of PB * c , like the rest of Zone F .

On the other hand, it is difficult to explain the alternation in KinILaamba-Central [ $\mathrm{s} /]^{1 / 4}$. It may be a generational question, or simply unknown rules at the moment leading to inconsistent alternations, as in ICIWUUDgU where some younger informants had different qualities of sounds from the elders, who showed more conservative vowel productions

[^25]
### 3.1.2.20. "c/i/+superclose/

(a) [s] All, except GinaNeuzu, JinaKirya, KiDakama, KiNyanyeembe, KinaUshoola, KiniHaanzu
(b) []] KimunaSukuma, JinaKIIya, KiDakama, Kinaushoola
(c) [h] KiniHaanzu
(d) [s (J)] GinaNtuzu. KiNyanyeembe

### 3.1.2.21. *C/u /+superclose/

(a) [s] All, except Kinaushoola, KinıHaanzu, KıRımi
(b) [h] KInIHaanzu. KıRImi
(c) [] KInaushoola

Evidence for BS in the $\mathrm{PB}{ }^{*} \mathrm{c}$ environment is not clear, first because of the limited data. and secondly, because of the overall distribution of the reflexes which favours /s/ generally before all vowels. This indicates that ${ }^{*} \mathrm{c}$ was not inherited from Proto Bantu by the Zone F languages because it is not attested in the group. Rather, $/ \mathrm{s} /$ is inherited from an intermediate. common proto language which is not Proto Bantu. The examples of KimunaSukuma, JinaKirya. KiDakama, Kinaushoola show ///before superclose vowels. These are cases of probable recent palatalization, as a contrast to the [-superclose] vowel influence. However, the importance of palatalization seems marginal, since Kinaushoola, for example, shows traces of /// in all phonetic contexts. KISukuma has /s/ before PB *u. indicating a mixed situation with a likely non-BS status. A partial numerical distribution of the reflexes of PB *c is shown in 3.2.1.1.1+ below when discussing SSN

### 3.1.2.22. ${ }^{*} j$ _V $/$-superclose/

(a) [i] KıRimi, Kikirmbu, KiiRangi, KeeMbuwe
(b) [z] KiLoongo, KrSukuma, KiNyamweezi, KiniHaanzu, ICIWUUngU
(c) $[\mathrm{j} / \mathrm{z}]$ KInaushoola, KinıLaamba-Central
(d) $[z / z y]$ SiSiloombo, SiYoombe
(e) $[\mathrm{s} / \mathrm{sy}]$ KiBende

The striking feature here is the isolation of KiBende by spirant devoicing as noted above This feature is not shared by any other Zone F language.

## 

Data were inadequate in these environments. Out of the more than 1000 words used. only 26 contained ${ }^{*} \mathrm{j}$, and out of those, none had ${ }^{*} \mathrm{i}$, and only 2 had ${ }^{*} \mathrm{a}$. Conclusions based on this sound would therefore be significantly misleading.

### 3.1.2.24. Explanation and interpretation of Bantu Spirantization in Zone $F$

The analysis of BS in Zone F can be approached in two ways (a) either as a phonetic or phonological process whereby articulatory and perceptual factors play a role in sound change (b) contact situation where one variety transfers features to another variety. During the process of adopting and adapting the new features, the phonetic/phonological processes interact simultaneously with the contact situation or any other factor(s) as one complex whole. The separation of the results of interacting processes is done only for the sake of analysis since the two. contact and phonological change, can and do occur simultaneously.
3.1.2.27.1.Phonetic Phomological Explanation and interpretation of Bantu Spirantization in Zone $F$.

The feature geometry approach can be used to account for BS. Feature geometry treats Bantu Spirantization as a Consonant/Consonant (C/C) interaction where the superclose vowels are phonologically specified for the [+consonantal] feature which then spreads over other neighbouring segments in a patterned way and completely replaces the CPlace features of preceding stops (Zoll 1995.539). The process is largely governed by the phonotactics of a language. She states:
the narrow stricture of the superclosed (sic) segments is directly responsible for these properties of mutation as well - in particular, that the superclosed segments have CPlace rather than VPlace features, in line with their narrow stricture, and thus are classified phonologically as [+consonantal]...Once Bantu mutation is properly understood as an interaction between consonantal segments, it is no longer surprising that the set of triggers has never broadened to include the other vowels.
(9) $\mathrm{k} \rightarrow \mathrm{s}$

| k | i |
| :--- | :---: |
| Cplace | CPlace |
| Dorsal |  |
| $\mid$ |  |
| Coronal |  |
|  |  |
|  |  |

$$
(10) \mathrm{k} \rightarrow \mathrm{f}
$$

| $\mathbf{k}$ | $\mathbf{u}$ |
| :---: | :---: |
| Cplace | CPlace |
| Dorsal |  |
|  |  |

-Continuant + Continuant

Represented graphically in (9), the /k/ loses its
(11) $\mathrm{d} \rightarrow z$

| $d$ | $i$ |
| :---: | :---: |
| CPlace | CPlace |
| Coronal | Coronal |
| $=$ |  |

-Continuant

+ Continuant
[+dorsal] features by being deleted by the CPlace feature of the superclose *i which spreads its [ + coronal] and [+continuant] features. and changes $/ \mathrm{k} /$ to $/ \mathrm{s} /$, as in SiSuumbwa Myoonsil < *-yoki 'smoke', or as in KiBende /-sisi/ <*-kidi- soot". In KiBende, two prominent processes in the language occur in that word. BS which transforms * k into $/ \mathrm{s} /$ and spirant devoicing which changes $* \mathrm{di}>/ \mathrm{zi}^{1}$ into ${ }^{*} \mathrm{di}>/ \mathrm{si} /$.
(12) $\mathrm{d} \rightarrow \mathrm{d}$

| d | i |
| :---: | :---: |
| CPlace | CPlace |

Coronal Coronal
-Continuant + Continuant

The BS rule is powerful enough to account for the changes observed in spirantizing languages For instance, with ${ }^{*} u$, the change of ${ }^{*} k>f$ can be explained as the spreading of the [+Labial] and [-Consonantal] features of the *u to the * $k$. The two features then delete the CPlace node of the * $k$, resulting in $/ f /$ as an assimilatory process. This can be represented as in (10), above.

On the other hand, such a rule assumes that the process will apply without exception in a given language like KISukuma. For instance, what is the interpretation of the in cases where there are double reflexes of *-dudi 'whisthing' where KımunaSukuma has/shiluji/, JinaKrrya /nuli/ and SiGalagaanza has /muluzi/, respectively? The rule does not explain such


#### Abstract

exceptions However, one way of defending the feature geometry rule as a relevant and plausible explanation is the fact that in each language the rule applies differently in terms of which features are specified or not before the superclose vowels. The selective rule application also specifies which features are replaced in the adjacent stop, as illustrated in (I1) as in KINyamweezi -gazi 'blood' < *-gadi 'blood'; in (12), as in KıSukuma -dito heavy' < *-dito 'heavy'; in (13) as in JinaKIIya -biti hyena' < *-piti hyena


Due to these individual language differences. some phonotactic rules may apply in each case, either allowing or blocking some of the operations of the expected rule and its results.

On closer examination, the phonotactic explanation is not good enough for violating the BS rule, since, as in examples (12) and (13), any exception to the feature geometry account is likely to be a result of a vowel other than the superclose. Any violation or compliance with BS can also be due to a word borrowed into a language which has no BS. resulting in some words being affected by BS while others do not

$$
(13) t \rightarrow t
$$



CPlace
CPlace

Coronal Coronal
-Continuant + Continuant
The enigma of double retlexes in some of the Zone F languages like SiSuumbwa, KiSukuma, by the feature geometry account when borrowed words or sounds are involved. As noted in
3.1 1, Tables 3.1 and 3.2 above on 7 vs 5 vowel systems, there is dominance of 7 V and 5 V in F25 and F34 respectively without definite BS. On the one hand. F34 did not undergo BS. although it shows a 5 V system, as illustrated in 3.1 .1 regarding vowel systems in Zone $\mathrm{F}^{17}$ The state of affairs where there is a reduction of vowels in descendant languages like KeeMbuwe and KiBende can be interpreted in two ways, among others. First, it can be a result of true BS. and secondly it may be due to vowel reduction not related to BS The behaviour of KeeMbuwe and KiBende can shed some light in the patterns of double retlexes in SiSuumbwa, KiSukuma, KINyamweezi and ICIWoungu. At the beginning of Chapter 3 on vowel quality frequencies, F25 showed that it is a 7V language without any doubt. although other studies have also found that speaker variation was pronounced. with some speakers showing 7V, while others, especially from the young generation, had 5 V (Labroussi 1999). One explanation given by Labroussi (1999) is BS in progress.

However. ongoing BS in F25 is an unlikely explanation because the mechanism does not suggest that it is internally motivated or adapted through adoption by borrowing. The major factor is likely bilingualism of the speakers, who are made conscious of using two codes

[^26]and/or two phonological systems, F25 and KiSwahili, the national language. If the process were internal to the language, there would be no widespread exceptions for the superclose /i/ and /u/ being only occasionally specified for [+consonantal. +continuant]. This can be accounted for by the F25-Kiswahili bilingual situation the younger generation are exposed to, compared to their elders, who are likely to be less bilingual. Because of bilingualism, a much more plausible account is imitation borrowing without any progression to adaptation. Imitation borrowing occurs when the linguistic rules of the loan words from the source language are not learnt properly by the recipient language speakers, and theretore reproduction is not perfect. Adaptation borrowing in speakers occurs when assimilation into the recipient language follows the rules of the source language, resulting in a perfect blend of loan words so that the origin of the word in the source or recipient language is blurred (Coetsem (1988:7)). By imitation or adaptation, it is possible to store in language a faithtul transmission of loan words and culture in general as non-material artefacts of a speech community. By their behaviour, these loans can then be distinguished from inherited vocabulary or other phonological processes like BS.

When there are double reflexes therefore, a language is either BS, or it is not If it is not, then it has been heavily influenced by a BS language. This semblance of BS in a language is a result of a natural phonological process of assimilation helped by borrowing due to proximity to or being dominated by a full BS language. In the case of ICIWUungu, such a dominant language is likely to be KiSwahili, which is a national language and a medium of
instruction in all schools. With the policy of universal education in the 1970s and 1980s in Tanzania, all young speakers in all speech communities in the whole country who had the chance of going to school were exposed to the prestigious BS language, KiSwahili. These included ICIWUUngu's neighbours like M11, M25, and M31 which show traces of BS, but with 7 V , a pattern obtaining in F 21 and F 22 as well. In addition. all Zone G languages have $\mathrm{BS}^{1 \times}$. This indicates that the pressure of KiSwahili, a Zone G language, is enormous, although its influence is only recent, especially when young informants give data. Other BS languages exert their influence in other contexts, as in DJ60 or EJI0/20/30 on their neighbours. Since BS occurs in the same words because the languages affected are all Bantu, then it is easy to borrow such words when the source language is perceived to be of higher status at that time. But since there is no internal motivation to maintain the momentum towards full adaptation, the 7 V also remains as a separate system. This becomes consonant with the F21, F22 and F25 situation where the languages appear to have undergone partial BS because of retaining some words without BS , and having a 7 V system, although in fact this is only imitation which is not internalized by and generalized into the system. For instance, M32 (CiNdali) shows patterns of heavy interference by other languages like KiS wahili, resulting in partial BS but full-fledged 5 V , although its nearest relative, M3I, displays the same partial BS but with full 7V. Labroussi (1999) offers a good explanation of this inconsistency for the Corridor languages and which is relevant to Zone F generally. In

[^27]both of the Zone M30 cases, it is likely but not proved by any study, that only imitation borrowing occurs rather than BS adaptation. As Labroussi (1999:374) aptly points out, $7>$ 5 occurs independently of BS, although on the other hand. BS is necessarily followed by 5 V In other words, F34 has $7>5$ as an independent vowel reduction process not associated with BS, whereas F10 and F23 have 5 V because of BS.

On the other end of the spectrum F24, F31 and F32 have neither $7>5$. BS nor any significant loan words with BS from their neighbours, indicating that, apart from being distant from F23, and to some extent from F10, they did not share any immediate historicat path to make such influences possible

For its part, KeeMbuwe (F34) has no BS, but shows strongly that it has 5 V , as revealed in Tables: 3.1. and 3.2. Such vowel reduction may be due to heavy recent borrowing, probably from Iraqw or KiSwahili. rather than internal change, since there are few [ I$]$ and $[\mathrm{U}$ ] remnants which reveal some underlying 7 V heritage ${ }^{19}$. F34 is a language surrounded by nonBantu languages which are 5 V . Borrowing heavily from them is expected, facilitating the adaptation of new features into its own phonological system. KiiRangi (F33), a close relative

[^28]of F34, shows neither BS nor 5 V although neighbouring languages like CiGogo or Seuta (and Ruvu in general) are BS and 5 V

This further implies that any traces of BS in Zone F outside F10 and F23 are either borrowed, or that they are not even BS. Rather, the traces which appear to be BS may in fact be regular palatalization, which tends to occur whenever a high front vowel is adjacent to a plosive, as a general assimilatory process of language. BS as a specitic assimilatory process in Bantu does not allow for exceptions if it is present in a language. In KiSukuma and KINyamweezi, for instance, some words do sometimes undergo BS, while others do not Taking off from Labroussi's (1999) analysis and conclusions, the situation in KISukuma and KINyamweezi suggests strongly that there is a mix of two assimilatory processes: Bantu specific palatalization (BS) and general palatalization. This is the type of mix that occurs occasionally in KISukuma/KINyamweezi and other 7V languages BS as a specific form of palatalization is associated with strict $7>5$, while general palatalization does not affect 7 V systems. These palatalization patterns are described by Labroussi (1999) as partial spirantization since there are many exceptions, as in the case of CiNdali and Cingonde. among others. Such palatalization is not Bantu Spirantization ${ }^{\text {20 }}$ (BS) because BS is unlikely to accommodate such exceptions. The cases described by Labroussi are very similar with

[^29]the Zone F situation where there are fully-fledged BS with 5 V languages like KiBende and SiSuumbwa. On the other hand, there is a group of languages like KISukuma, KINyamweezi and rCiWuUngu which behave anomalously because of mixing features from different phonological processes. Labroussi (1999:375) offers an insightful explanation on this anomalous situation by advancing this idea of structural mixing. She describes the anomaly as abnormal, indicating that the source may lie in the examination of the sociolinguistic and historical networks between different linguistic groups. Such networks might have resulted in 'structural mixing' of two or more languages within one recipient language, as in the case of F21, F22 and F25. Such a situation of BS with 7V is also found in G65 (KiKinga). M1। (iCiPimbwe), M25 (ifiSatiwa), NII (CiManda), P13 (KiMatumbi) Schadebery (1995) analyzes this situation in detail, selecting languages which represent all Bantu zones. See also Kahigi (1987, 1988, 1995) on the processes of Proto Bantu stop weakening

Zoll's feature geometry approach is powerful and elegant enough to capture what goes on in Bantu Spirantization. Zoll's approach also supports Labroussi (1999:363-365) who views BS as the natural effect of tense high vowels on preceding consonants which become phonological, and then the changes are morphologized in inflections. later regularized in derivations as a permanent change.

Based on the phonetic/phonological approach. BS and its traces in Zone F can be interpreted in the following ways. First, those languages with traces of BS with 7 V retention might be
considered cases of historical palatalization only as an internal innovation. In this category can be grouped varieties of KiSukuma and KiNyamweezi. Secondly, there are those languages in which the Proto Bantu plosives underwent lenition generally, starting in an intervocalic environment and then by analogy regularized to all the occurrences. In this group are languages like KIRImi and KiiRangi where there was a systematic change of plosives with 7 V retention without Bantu Spirantization. Thirdly, in some languages. the plosives changed into corresponding tricatives without Bantu Spirantization, but then 7 V became 5 V by processes other than phonetic, as explained below under contact situations. This is the case of KeeMbuwe. Fourthly, it is unlikely that a language underwent the regular processes of weakening, with Bantu Spirantization, but then retained the 7 V quite firmly. like ICIWuUnge. With regard to 7 V vs 5 V in ICrWuonge, Labroussi (1999:375) is quite clear that it is 7 V , although some young speakers have 5 V . However, such a system of spirantization with 7 V she calls abnormal, a situation found in ICrWuUngU and Fipa-Sukuma as an instance of structural mixing referrred to above (Labroussi: ibid). Fitthly, the change resulted in Bantu Spirantization and a 5 V system, as in the case of SiSuumbwa and KiBende. And lastly, there are those languages which changed little from Proto Bantu. like Kikirmbu and KinILaamba. showing neither traces of BS nor 5 V . These linguistic groupings in Zone F can be summarized in (14) as one way of classifying these varieties based on Bantu Spirantization:
(14) Plosives, $7>5$ and BS in Zone F

| Process <br> Languages. | 7 V | 5 V | BS | $\mathrm{PAL}^{2+}$ | Other lenition |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Kikumbe, KintLaamba | + | - | - | - | - |
| KıRımi, KiiRangi | + | - | - | - | + |
| tCrWourgo | + | - | +? | - | - |
| KıSukuma, KıNyamweezi | + | - | - | + | - |
| KeeMbuwe | - | + | - | - | + |
| SiSuumbwa, KiBende | - | + | + | - | + |

Due to contact, the features of these various groupings can diffuse to their neighbours and cause such phenomena as double reflexes. For instance, words with BS from SiSuumbwa or KiBende can spread to other lanyuages, while the non-BS languages can also donate those non-BS words to SiSuumbwa and KiBende. A few such words are found in SiSuumbwa, as shown in 3.2 below
3.1.2.24.2 The Contact Model Explanation and interpretation of Bantu Spirchutization in Zone $F$

Apart from the purely phonetic and phonological explanation of Bantu Spirantization, the process can also be interpreted in sociolinguistic terms. This refers to language contact as a social dimension of language where people of one language adopt and adapt aspects of another language into their own. The natural phonetic and phonological environment becomes only one conditioning factor. After borrowing a few words with BS, the same

[^30]phonetic environment begins to behave in two ways, $B S$ and non-BS. Double reflexes result with time. Multilingualism due to areal contiguity in many of the Bantu languages plays a big role here where BS can spread even further (Schadeberg 1995:82; Nurse 1999:26). Some of these languages therefore acquire BS partially, resulting in double reflexes when the process fails to be adapted; if acquired in full, there is resulting language shift, from a 7 V language to a 5 V with BS. The mechanism of this causal relationship between BS and $7>$ 5 has not yet been fully explored as far I am aware. But, based on observation, BS is followed by $7>5$ generally because of the phonological instability created by BS (Schadeberg 1995:78). This causal connection Labroussi (1999:367) calls phonological enrichment in which BS introduces new phonemes (fricatives) in a language whereby the vowel system is restructured by vowel reduction as a counterbalancing process. This explanation is adequate, although a systematic study can be undertaken to study the causal relationship in more detail

The contact model approach is preferable since it simultaneously includes both the phonetic/phonological and sociolinguistic perspectives. Two observatic as can be made of this sociolinguistic approach: behaviour of loanwords and the capacity of various speech communities to absorb speakers from other languages.

### 3.12.24.2.1. The Contact Models: Loan words.

Loanwords with BS features, especially in KINyamweezi and KrSukuma where Proto Bantu consonants show two reflexes, are suspected as major sources of apparent BS. The situation
is similar to that of KiPare (Casu) where extraneous sounds which go against expected patterns in the language are found, creating a messy picture" A few cases of BS are found in KIKIImber North in words like kU-fuma to go out'<*-pum- 'go out'. This word displays BS, a process which is generally absent in that language. A feasible explanation lies in contact with neighbouring KINyamweezi which has some Bantu Spirantization, also not native in the language. It is mainly due to contact with other Bantu Spirantization languages that KiKirmbu North would have a word with such a form. The prime suspect is likely to be SiSuumbwa or KiBende because it is synchronically the nearest (although modern language contiguity says nothing about ancient affliations and neighbourliness between languages) Irregularities due to contact are a common occurrence, and in this case, we might ask ourselves: Is SiSuumbwa a real candidate for influencing KISukuma and KINyamweezi. which in turn might have influenced KIKIImbu? What about other languages which we do not know about now because they are at present geographically distant from KiSukuma. KINyamweezi or KIKIImbu speech communities? Regularity in language is normal. and any irregularities as marked features should be explained. For instance, in cases of double reflexes. should ongoing change be posited? If such a position is suggested, then one word should allow two different ways of pronunciation to mean the same thing. But that is not the case in the double reflexes found in KINyamweezi and KISukuma. There is detinitely no evidence of ongoing change. In southern KiSwahili, for example. mawi and mwenfi on the one hand, and northern KiSwahili mwisi and mweusi 'thief' and 'black' respectively, on the

[^31]other, are dialectal and they do not coexist in one dialect. In their conversations, Bryan revealed to Nurse that in the 1930s mwivi and mwizi were in fact both common in Dar Es Salaam ${ }^{33}$

### 3.12.24.2.2. The Contact Models capacity for absorbing newcomers and demographics

In the not so distant past, both KISukuma and KINyamweezi speech communities showed a tendency to absorb speakers of other languages and swell their numbers (Masele 1997). That also can have a disturbing/modifying influence on the host languages. If that fact is acknowledged, then the following questions may have definite answers if the evidence is collected. Why are some of the reflexes irregular in some varieties while other varieties are relatively stable? Why do some members of Zone F languages show consistency of pattern while the others do not?

Demographic changes is one of the best scenarios. According to the preceding sections, SiSuumbwa underwent Bantu Spirantization. KISukuma and KINyamweezi did not, except that they borrowed lexical items which had BS. This explains the inconsistent reflexes For instance, in the *d reflexes, one would expect only /IV, but there are $/ \mathrm{j} /$ (in KISukuma) and $/ z y /$ (KINyamweezi) in causatives. This can be said of $/ \mathrm{k} /$ with the/f/ and $/ \mathrm{k} /$ reflexes. There is also a mixed situation with regard to "b. Where do these unexpected reflexes come from? One answer might be the languages coming in contact with the affected languages Which

[^32]ones, is a perennial question if the current neighbours are excluded.

### 3.1.2.2+.3. Symhesis: Bamu Spiramization in Zone F

In phonetic and phonological terms, a more than ternary division of tongue height allows for Zoll's proposal for a feature $[ \pm$ cons $]$ for $/ \mathrm{i} /$ and $/ \omega /$ (i.e. Guthrie's $/ \mathrm{i} /$ and $/ \omega /$ ). The ternary characterization of vowels as being only high. mid and low excludes finer vowel heights. at least in analysis. A four-part division allows for more flexibility: superclose ( ${ }_{i},{ }^{*} u$ (or ${ }^{*}$ ! and $\left.{ }^{*} \mathrm{Y}\right)$. close or close-mid ( $\left.{ }^{*} \mathrm{I},{ }^{*} \mathrm{U}\right)$, open-mid ( ${ }^{*} \mathrm{e},{ }^{*} \mathrm{o}$ ) and low (*a), as suggested in (15). In normal circumstances the $/ \mathrm{N} /$ and $/ \mathrm{u} /$ are underspecified for features [ + superclose] and [+consonantal] where /i/ and/u/are not high enough to trigger spirantization. In other words. in languages without BS, the superclose vowels are not specified for [ + consonantal], although the division is quartery (four-part). In SiSuumbwa and KiBende the superclose vowels had the [ + cons] feature specified, and they triggered Bantu Spirantization.
(15) Four-part height of Proto Bantu vowels


BS due to contact applies only in those few loan words with BS, or those regularized due to the contact environment. The mechanism of why in some languages the [-cons] feature is present, with the potential of triggering BS, and in others it is not, is a matter for further investigation.

On the other hand, the contact model also accounts for those double reflexes which Harris and Lindsay ( $1995: 69$ ) see as an arrested process. Historical progression through various stages on a particular path is sometimes arrested at some point, with the result that two or more stages on a particular trajectory are retained within the same phonological system as stable alternations or distributional variants. Although this explanation is good at first sight, its major shortcoming is its inability to provide evidence for the arrest of a certain change in progress and the reasons for that. For instance, in the case of ICIW . in some words but not in others. The major question remains: why some stages are arrested
in some words but not in others? This model appears incorrect, since the arrested stages are most likely loanwords which appear as irregular or double reflexes in a language, as in SSN In such occurrences then, no full Bantu Spirantization can be found. The case of KiBende is instructive most of the reflexes are complete, which is suggestive of non-interference from other languages because of being isolated physically (in the past) from the non-BS languages. Where there are double reflexes, the influence of neighbouring BS varieties causes mixed forms to appear. This can be said of SiSuumbwa in relation to KıNyamweezi and KiSukuma. and to some extent Kikirmbe North. Due to the impact of KINyamweezi on KIKIImbu North, the borrowed BS words might have spread even farther, since KINyamweezi was numerically stronger, and was also until very recently perceived as socially and culturally. prestigious ${ }^{24}$.

To summarize. Bantu Spirantization in Zone F can be viewed as a three stage process. The first stage refers to languages which did not undergo BS. The second stage involved the adoption of words with Bantu Spirantization. However, the adoption and adaption process

[^33]was not complete since the native words were already well formed phonotactically, and it was not necessary to influence them. Some fricatives replaced stops. This is explored in more detail in section 3.2 and represented in (16).
(16) BS and $7>5$

| Stage | Vowel status | Consonants | 'arrive. measure | Example languages |
| :---: | :---: | :---: | :---: | :---: |
| I | 7 (incl. I \& 0) | stops | -pika/-pıma | All Zone F |
| II | 7 (ind. 1 \& 0) | stops, fricatives | -pikat-pıma | All Zone F, except F10, F23 ${ }^{25}$ |
| III | 5 (no I\& u) | stops, fricatives | -fika/pima | F10, F23, G42 ${ }^{16}$, with BS |

The third stage occurred in languages like SiSuumbwa and KiBende. This stage of BS maps a one-to-one relation between superclose vowels and Bantu Spirantization. With such a rule. no exceptions are expected, unless the languages acquire loanwords. As neighbours. languages like SiSuumbwa (F23) had an impact on languages like KINyamweezi and KiSukuma to some varying degrees, while the more distant ones received little or no influence. This is illustrated in (16)

As a classificatory tool. Bantu Spirantization only succeeds in isolating SiSuumbwa as a once powerful and influential language which interacted with and was reciprocally influenced by

[^34]KıSukuma and KiNyamweezi. In Zone F. SiSuumbwa and KiBende are the only languages with true BS with 5 V Based on BS alone, Zone F's unity is questioned

### 3.1.3. Dahl's Law

When two successive syllables [in KINyamweezi] each begin with an aspirate, the first of these loses its aspiration and becomes voiced", Meinhof (1932:181), had said, quoting Dahl (1915) who had observed KINyamweezi lexemes and after whom the law is named. as in (17)

```
(17)-gatI < PB *-katI in the middle'
    -datU < PB *-tato three
    -\betaIta < PB *-pIt- 'pass, surpass'
    -sagula < PB *-cakUd- comb (hair)' (JinaKIIya) }\mp@subsup{}{}{27
```

The rule can be restated in the form shown in (18)


In KINyamweezi, the rule applies within a single di- or poly-syllabic morpheme. Other languages innovate the law differently.

[^35]Davy and Nurse ( 1982 157) indicate that the phenomenon shows traces in many languages of East Africa, and is not found outside the area, based on present evidence (Nurse and Hinnebusch 1993:215). Davy and Nurse (op. cit) isolate four possibilities of the process, implying that, although it is Dahl's Law, its implementation may depend largely on the phonotactics of a language. They go on to provide example languages and their dissimilation patterns, where possible ${ }^{2 x}$ : (a) petrified in some, leaving only traces in stems (as in E74. E55. E56. G22, and EJ30. with traces in one or more of *p, ${ }^{*} t,{ }^{*} k$ ), (b) affecting consonants of prefixes and stems actively, (c) affecting several obstruents (as in E51. E52, E53 and EJ40). and (d) affecting only stops. predominantly $/ k /$

For instance. Dahl's Law in KinyaRwanda, as a geographically close neighbour to Zone F languages, particularly KISukuma and KINyamweezi, dissimilates the voiceless consonant of the prefix morphemes by voicing when the first consonant of the following root in a stem is voiceless, as illustrated in(19) (from Kimenyi 1979:65-71). The consonant may or may not be a stop. Because the rule in KinyaRwanda applies only across morpheme boundaries rather than within a single morpheme, the following affixes are examples of such morphemes that trigger the process: -ku- 'intinitive 'to", 'you (singular)', -ka- diminutive (class 12)', 'narrative or consecutive tense', -ki- "not yet' aspect', 'class 7 marker", -tu- 'we. us' , -ta'negative marker'

[^36](19) Dahl's Law in KinyaRwanda (data from Kimenyi 1979)

| $k u$-ßona 'to see' | a-ka-gaßo 'a small man' | i-ki-gori 'maize' |
| :---: | :---: | :---: |
| ku-mira to swallow ${ }^{+}$ | a-kct-zu 'a small house' | tu-ki-rya 'we eat it' |
| gru-soma 'to read' | a-ga-seka 'and then he smiles' | tu-gi-soma we read it |
| $g u$-kina to dance | a-ga-fima and then he thanks' | i -g $\mathrm{g}_{\text {- se }}$ ®e 'wound |
| u-tu-mesa who doesn't wash' $\quad t$-bura 'we |  |  |
| u-la-gona 'who doesn't snore' |  | ects us |
| u-dkr-saßa 'who doesn't ask' |  |  |
| u-da-hinga who does | cultivate ${ }^{\text {- }}$ a-du-tuma ${ }^{\text {h }}$ | ds us |

In Zone F generally, the data show that Dahl's Law is active today in KiNyamweezi and KiSukuma only. In the other languages, it does not exist except in loanwords, in those of unknown origin or in sporadic processes with a semblance of the law (See Appendix 3) In extensive cases of borrowing due to contact or ambiguous status of Dahl's Law as in KINyanyeembe, KIKonoongo and SiGalagaanza, a general explanation is given to account for the unexpected skewing of the results. In these three varieties. Dahl's Law is found in less than $50 \%$ of the sampled items. A figure of at least $78 \%$ words with Dahl's Law suggests that a language variety has active Dahl's Law, while a count of less than $48 \%$ raises some doubts. sometimes serious, about its linguistic group membership. The results are shown in Tahle 3.6

Table 3.6. Status of Dahl 's Lan in Zone F Individual vertieties

| Language variety | Toual mumher of worts |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | All used | - DL | n/oDI. | -DL | \% - DI |
| SiSiloombo | 38 | 4. | 11 | 34. | 89 |
| SiYoombe | 41 | 5 | 12 | 36 | 88 |
| KiLoongo | 34. | 10 | 29 | 24 | 71 |
| KimunaSukuma | 44 | 38 | 86 | 6 | 14 |
| GinaNtuzu | 45 | 39 | 87 | 6 | 13 |
| JinaKırya | 51 | 49 | 96 | 2 | 4 |
| KıDakama | 41. | 32 | 78 | 9. | 22 |
| KiNyanyeembe | 41 | 18 | 44. | 23 | 56 |
| KIKonoongo | 44 | 21 | 48. | 23. | 52 |
| SiGalayaanza | 42 | 12 | 29 | 30. | 71 |
| KiBende | 33 | 0 | 0 | 33 | 100 |
| KinaUshoola | 37 | 0 | 0 | 37. | 100 |
| KiniLaamba C | 33 | 0 | 0 | 33 | 100 |
| KiniHaanzu | 38 | 0 | 0 | 38. | 100 |
| GIRwaana | 36 | 0 | 0 | 36 | 100 |
| GiAhi | 42 | 1 | 2 | 41 | 98 |
| YInyaMunyiganyi | 43 | 1 | 2. | 42. | 98 |
| KıKıImbu North | 47 | 4 | 9. | 43 | 91 |
| KIKiImbu South | 43 | 1 | 2 | 42. | 98 |
| ICIWUungo | 41 | 0 | 0 | 41 | 100 |
| KiiRaygi | 41 | 1 | 2 | 40. | 98 |
| KeeMbuwe | 40 : | 2 | 5 | 38 | 95 |

Based on the different numerical patterns of the law displayed by the various language varieties, some linguistic groups can be suggested. In order to obtain these groupings based on Dahl's Law, five steps were followed. First, all words containing a consecutive sequence of syllables with voiceless stop consonants were identified by examining the Proto Bantu list
of 1036 items, word by word. The aim was to include all DL words to see how they behaved in the various varieties. However, a few were not usable for various reasons. For instance, it was discovered that some were not directly inherited from Proto Bantu, while the others were formed exclusively by syllables with PB * c instead of those words having at least one voiceless stop from/p, t, k/. In many Bantu languages PB * c is realized as $/ \mathrm{s} /$. In all language varieties, except JinaKirya, /s/ does not trigger Dahl's Law. Such excluded words, included *-cupa 'calabash bottle' (cf KiSwahili cupa, JinaKıyya nsuha 'calabash'. juba 'bottle'): *cace/cact 'spark'. The second step involved the assembly of a unified list of the cognate words for each variety. Fifty eight (58) were found usable, constituting $6 \%$ of the whole list. Thirdly, the frequencies of either Dahl's Law or its absence were made, and their totals computed. Fourthly, the words which were not cognates or where the informant did not supply a word, were sorted out and excluded from the sample for each variety so that only words with responses were counted to see Dahl's Law words. And finally, a percentage for each language was computed from the final selected words that remained in each variety. The results of Table 3.6 indicating these groups are summarized in Tab/e 3.7.

Table 3.7. Dahl's Law in Zome Fi and ling nastic grouping

| Hems with Dahl's <br> Law, ont of 58 words | Number (i) and names Language varieties |  | Dahl's Lens Stallis |
| :---: | :---: | :---: | :---: |
|  | \# | Examples |  |
| 0\%-12\% | 14 | SiSiloombo, SiYoombe, GIRwana. <br> GiAhi. Ghrnyamunyinanyi, <br> KInaUshoola, KınILaamba, <br> Kınihaanzu, Kilraŋgi, KiKirmbu <br> North, KIKiImbe South. KiBende, <br> KeeMbuwe, ICIWuUngu | - |
| 29\% | 2 | SiGalagaanza, KiLoongo | ? |
| 44-48\% | 2 | KINyanyeembe. Kikonoongo | ? |
| More than 78\% | 4 | KimunaSukuma, GInaNtuzu. JinaKirya, KıDakama, | + |

As Tahle 3.7 shows, four divisions can be observed in Zone F with regard to Dahl's Law. Firstly, out of the 22 varieties, 14 of them show no or very few traces of Dahl's Law. (zero to 5 out of the 58 words). Most Zone F languages fall into this category. Secondly, two varieties have Dahl's Law in 10 and 12 words respectively, out of the 58 . Thirdly, two others show 18 and 21 words with Dahl's Law respectively. And lastly, 4 dialects have more than 30 words undergoing Dahl's Law.

From the list, it is apparent that languages or their varieties without Dahl's Law include the two varieties of SiSuumbwa, KiBende, KıRımi, KıniLaamba, KıKımbu, KiiRangi, ICIWUUngU, and KeeMbuwe, while the Dahl's Law languages are KISukuma and some
dialects of KINyamweezi. For KiNyamweezi however, there are reservations with regard to KINyanyeembe and KIKonoongo on the one hand, and SiGalayaanza on the other. The frequencies of Dahl's Law and non-Dahl's Law items in these varieties do not give a conclusive picture, unless other criteria of classification are used. KINyanyeembe has 18 words or only $44 \%$ out of 4 I while KIKonoongo has 21 out of 44 , or only $48 \%$. These two figures show that more than half of the words do not undergo Dahi's Law as they should. For SiGalagaanza, Dahl's Law words are even less, at 12 only from 42 words, or $29 \%$ only That figure for SiGalagaanza matches closely with that for KiLoongo. at 10 words out of 34 . or $29 \%$.

While KINyanyeembe and KIKonoongo may be regarded as heavily influenced by languages without Dahl's Law, SiGalagaanza and KiLoongo have close figures suggesting something more than only influence from another language This suggests membership in languages other than those they are purported to belong. In other words, SiGalagaanza may not be a part of KiNyamweezi, just as KiLoongo seems to belong elsewhere thani with SiSuumbwa. This is further explored in $\mathbf{3 . 2 . 2}$ below.

Using Dahl's Law alone, the classification of the Zone F languages emphasizes the following three points with regard to groupings. Firstly, SiSiloombo and SiYoombe exclude KiLoongo. establishing them as the centre of SiSuumbwa. KiLoongo, while it has some affinities with SiSuumbwa, creates a class of its own independent of SiSuumbwa. suggesting the possibility
of a separate history punctuated by another period of long contact with SiSuumbwa Some possible close affinity with SiGalagaanza is also suggested.

Secondly, the core of KiNyamweezi is composed of two dialects: KiNyanyeembe and KIKonoongo, since KrDakama shows a closer affinity to KiSukuma than to the KINyamweezi group, while SiGalagaanza displays an atfinity to other peripheral languages This behaviour seems to be the situation of the "centre" and "periphery" of an entity. The periphery 'protects' the centre from foreign influence by acting as a shell. The periphery is influenced because of its protective role by absorbing the foreign intluences due to its location at the fringes of the core. This especially applies to languages or varieties which have geographically and socially porous borders allowing other linguistic groups to come in easily SiGalagaanza borders other languages of Zone DJ and EJ with easy access both ways. while KiLoongo is surrounded by both EJ and F. The KISukuma varieties on the other hand are protected in the east by the swampy Wembere area, by Lake Victoria in the north. and in the west. in the not recent past by dense forests, and hence their closer affinity in terms of Dahl's Law with $86 \%$ for KimunaSukuma, $87 \%$ for GinaNtuzu and $96 \%$ for JinaKirya. Their buffer to the south, KIDakama, at $78 \%$, has the second highest frequency of Dahl's Law after the KiSukuma varieties. KISukuma's status suggests relatively undisturbed, linguistically impervious borders, especially in the past. The three varieties of KISukuma constitute a core group of Dahl's Law, although finer details isolate JinaKıya as a variety developing along a separate route from some distance in the past.

Thirdly, the rest of the Zone $F$ languages constitute another negative grouping. But since this larger grouping is not homogeneous by other criteria, the separate sub-groups in it suggest independent development, as explored in the conclusion to this chapter

Since Dahl's Law is largely confined to the target languages only of Zone F . namely.
KISukuma, parts of KINyamweezi and SiSuumbwa, a discussion of the mechanism of this law
is detailed in 3.2.2 below

Table 3.8 Dahl's Law outside KLSukuma, KiNyamweesi ami Si'Snunbua

| Word | Found in | Fossible source | Explanation (lexeme) in source |
| :---: | :---: | :---: | :---: |
| i-үufa < *-kupa 'bone' | GiAhi | Zone EJ? | -gufa ${ }^{29}$ |
| o-biha < *-pic- 'hide' | YınyaMunyinanyi | ? | ? |
| -visa <*-pic- 'hide | KiiRangi, KeeMbuwe | CiGoga? KiDaßida? | -visa? |
| ko-ßisa < "-pic- 'hide' | KrKirmbe North | KINyamweezi < <br> KiSukuma | $<$ ko- 3 isa |
| i-dooke <*-tooke 'banana' | KiKilmbu, North and South | KINyamweezi < <br> KiSukuma | < i-dooke |
| -buuhu < "-poop- light (in weight) | Kikirmbo North | KINyamweezi < <br> KimunaSukuma < <br> SiSuumbwa | <-bouhu |
| i-goba <*-kupa 'tick' | KIKıImbe North | ? | $?$ |
| ma-basa <-paca 'twin' | KeeMbuwe | ? | ? |

[^37]For the few frequencies obtained in other varieties, an explanation is given in Table 3.\%. As can be observed, the words are either loans, or the origin of the reflex is not clear.

### 3.1.4 Other processes

For classification purposes, the preceding three features, $7>5$, Bantu Spirantization and Dahl's Law are the most important, as a focus for this study. Other phonological processes like Meinhof's Law are not central in Zone F as a whole and therefore they are not discussed. In addition, not enough data are available for their fair treatment. The following processes are also not significant enough for diagnostic classification since they are isolated in a few individual languages only. However, they deserve some mention because they can shed crucial light in the finer sub-classification within the zone

### 3.1.4.1 Lenition of $P B^{\star} g$

The process of lenition of *g is observed in KIRImi where it becomes $/ \gamma /$. In this language, all PB stops (except party $/ k /$ ), weaken as part of a general process. In ICiWuongu, Keembuwe and KiiRangi, it becomes a fricative or glide like $/ \mathrm{y} /$ or $/ \mathrm{w}^{310}$ respectively In Keembuwe and KiiRangi especially, it is lost altogether in the majority of cases, as illustrated in (20)

[^38]| Variety w Proto-Bantu 0 | KIRDmi | KiiRafgi | KeeMbrowe | KTVUUng |
| :---: | :---: | :---: | :---: | :---: |
| *-gongo 'back' | mu̧oongo | mwoongo | mooryxo | mugoongo |
| *-dog- 'bewitch' | -roya, -loya | -lowa | -lova | -lowa |
| *-jogu 'elephant' | njou (njoүu) | תjou | תjou | inzovu |
| *-torga 'giraffe' | $n \mathrm{nt}(\mathrm{t}) \mathrm{Ya}$ | ntwitya | ntooya | ndwiiya |
| *-teg- 'set trap' | -Reeva (-tega) | -tea | -teya | -teeya |
| *-bogo 'buffalo' | mbo(o) Yo | mboo | mboo | imbogo |

In ICIWUUngo, the mutation of ${ }^{*} \mathrm{~g}$ to a fricative appears to be blocked mainly by $/ \mathrm{o} / \mathrm{or} / \mathrm{h} /$. Othervise, it regularly becomes / $0 /$ in all three languages, except KiRImi where it is $[\gamma]$. Because of that exception in ICrWuUngu and KIRImi, different histories are suggested for KIRImi. ICrWưŋgU and KeeMbuwe/KiiRagg ${ }^{3!}$. This might be explained as a diffused feature or as a feature inherited by the four from a common ancestor. The suggestion of a common ancestor needs additional support

### 3.1.4.2. Lenition of ${ }^{*} /\left(^{*} k \rightarrow x\right)$

This is a phonetic process which occurs mainly in KIKiImbu and KIRImi. The change is more consistent in KIKIImbu than it is in KIRImi. As a phonetic phenomenon, lenition of * $k$ to [ $x$ ] may not be a significant classificatory criterion, although the question is, why not

[^39]in the other languages? Such a shared articulation habit in two related and adjacent speech communities suggests either a feature inherited from a common ancestor, areal diffusion or contact with an earlier, perhaps non-Bantu community.

| Variety Proto Bantu $\downarrow$ | KIKirmbu | KIRImi |
| :---: | :---: | :---: |
| *-teek- 'cook' | -teexa | -Reexa ${ }^{32}$ |
| *-kada 'embers | -xala | -xa(1)a |
| *-kagga 'guinea fowl' | -xanga | -kanga (xanga) ${ }^{\text {s3 }}$ |

### 3.1.4.3. Split of *d into $1 /$ and $/ r$ '

All the Zone $F$ languages have ${ }^{*} d{ }^{*} 1>/ / /$ of some form or another, without exception. Again this shows how the lateral sound is important in any sound inventory For instance. out of a sample of 317 languages in the UPSID ${ }^{14}$, almost all had at least one liquid: $95.9 \%$ had at least one. while 72 6\% had more than one liquid (Maddieson 1984.73). If all the languages descended from Proto Bantu have at least a liquid, mainly $/ / /$, the likelihood is that Proto Bantu had at least one liquid. It is highly doubtifit that this sound was not in Proto Bantu. To

[^40]have a liquid ( $\mathrm{fl} / \mathrm{or} / \mathrm{r} /$ ) as a reflex of PB * d is the majority situation in most Bantu languages.
In Zone F , the two liquids, $/ 1 /$ and $/ \mathrm{r} /$, occurring in one language is limited to the eastern parts only, in KıRimi, KirRaygi and KeemBuwe.

In these three $\mathrm{V} / \mathrm{r}$ varieties, the distribution of $/ \mathrm{/} /$ and $/ \mathrm{r} /$ is sometimes environmentally conditioned, and at other times, dialectal. For instance, $\gamma$ InyaMunyinanyi tends to have more r's than I's, while in KiiRaggi and KeemBuwe, the distribution is consistently conditioned by environment
(22) $*-d>1, r, 6$

| Variety ${ }^{*}$ <br> Proto Bantu V | KıRımi | KiiRangi | KeemBuwe |
| :---: | :---: | :---: | :---: |
| --gudo 'ant-hill' | gi-yoo. gi-guo | ky-uolu | c-ooto |
| *-bidr | m-witr, m-wrili ${ }^{++}$ | mo-vir | mo-vere |
| --dom- bite' | u-ruma | ko-luma | o-loma |
| *deet- bring ${ }^{\text {c }}$ | -eRa, -leeta+ | -reta | -reeta |
| --ded- bring up' | 0-rea, 0-rra+++ | kur-era | o-rera |
| --digo 'burden, load' | m-wiiyo+, m-wifyo++, mutiyot++ | mu-ruwa? | mo-rigo |
| --dedu 'chin' | gr-deu | ki-dedu | kr-dedu |
| - -didन 'cry, wail' | -wirat, u-lia++, ku-ra+++ | ku-fra | o-rera |
| - dango door' | genyam-waango | mu-lyaango | mo-reengo |
| - -doot- 'dream (vt)' | $\begin{aligned} & \text { g-ootea+, o-oR-ea++, } \\ & - \text { goRea+ ++ } \end{aligned}$ | ku-loot-era | o-lot-era |

[^41]Olson (1967.23) points out that in KIRImi, the voiced alveolar flap $/ \mathrm{R} /$ (from PB *t), is articulated by one quick flap, and occurs with ali the seven vowels. In KiiRangi and KeeMbuwe this flap from PB *d occurs in complementary distribution with $/ / /$ as explained below. Two processes can be observed in these alternations:

Firstly, KıRImi differs from KiiRangi and KeeMbuwe in its tendency to lose/// when another alveolar sound is in any of the following four environments of consecutive adjacency. The picture is also muddled by apparent inter-dialectal borrowing: (a) adjacent to another lateral syllable, as in *-ded->-rera >-rea 'rear a child'; (b) adjacent to a homorganic consonant like /t/ as in *-doot-> -otea or -oRea 'dream'; (c) adjacent/d/as in *-dedu >-deu 'chin', or (d) when intervocalically where both vowels in the root have the same quality, as in *-gudu > *-gणU/Yणט 'ant-hill'

Secondly, the rule of $1 / r$ alternation in KeeMbuwe and KiiRangi can be stated in two environments: $/ /$ became $/ r /(a)$ when adjacent to front vowels $/ \mathrm{e} / \mathrm{/} / \mathrm{i} /$, (and $/ \mathbf{t} /$ for KiiRangi), or (b) intervocalically, if and only if one of the vowels flanking $/ / /$ is $/ \mathrm{e} /$, $/ \mathrm{i} /$ or $/ \mathrm{I} /^{15}$. The rule can be represented as in (23). This rule-sharing places KeeMbuwe and KiiRangi in one

[^42]historical route of development at some point in the past.
(23) $1 \rightarrow r /(V[$-low, -back $]) \ldots \mathrm{V}[$-low, -back]

However, to see whether features in KeeMbuwe and KiiRangi, and indeed, in Zone F are unique, it is important to compare the three major phonological processes with other languages from other Bantu languages. These processes are BS, DL and $7>5$

### 3.1.5. Similarities and differences with other zones

Because of common ancestry, Zone F is expected to be similar to other zones in many respects. Guthrie ( 1948 ) notes this with regard to the difficulty of isolating unique differentia for each zone

According to Nurse (199920-25), the occurrence of processes like Dahl's Law, Bantu Spirantization and $7 \gtrsim 5$ strongly suggests a shared historical development from a common. earlier ancestor Tuble 3.9 illustrates how the three processes are distributed across some sample Bantu languages. In order for a zone to be separate from other zones linguistically, it must have features unique to it. If there are no unique features to identify the zones beyond any reasonable doubt, then little is achieved in classifying them into zones in the first place

Table 3.9 BS, $7>5$ and DL in Zone F and other zones

| Feature es Language or Zone $\downarrow$ | BS | $7>5$ | Dahl's Law | Neither BS, 7 > 5 nor Dahl's Law |
| :---: | :---: | :---: | :---: | :---: |
| Zone F | SiSuumbwa, KiBende, ICIVvoungu? | SiSuumbwa, KiBende, KeeMbuwe | KrSukuma, (Part of $\mathrm{K}_{\mathrm{I}} \mathrm{Ny}^{2}$ amweezi) | KiniLaamba, KIRImi, KıKımbo, KiiRangi |
| Other Zones | Igumba (A). <br> Yaka (B), <br> Tetela (C) <br> LuGanda (EJ), <br> KiSwahili ${ }^{36}$ (G), <br> KiMbundu ( H ) <br> Lwena (K) <br> Ciluba (L) <br> KiPimbwe (M) <br> CiTumbuka (N) <br> KiMatumbi (P) <br> Kwanyama (R) Xhosa (S) | Пgumba (A). Yaka (B). <br> KinyaRwanda (D) <br> Bangubangu (DJ) <br> LuGanda (EJ) <br> KiSwahili (G), <br> KiMbundu ( H ) <br> Lwena (K) <br> Luba (L) <br> CiTumbuka ( N ) <br> Kwanyama (R) Xhosa (S) | KinyaRwanda <br> (DJ) <br> Gikuyo (E) <br> KiKurya (EJ) <br> KiKinga (G) | Yambasa (A) <br> Teke (B) <br> Bobangi (C) <br> Mbole (D) |

Compared with other zones, the Zone F members are not unique, since the three features are not confined to them alone. Dahl's Law, for example, is found across eastern Bantu in other zones like DJ, EJ, E and G. The crucial point may be in the small details of those processes. What the processes say is that some eastern Bantu languages might have evolved from a common ancestor which had Dahl's Law. Table 3.9 also suggests that many other languages evolved from other ancestors which did not have DL. In other words, eastern Bantu is not a linguistic label, but rather a geographical one, containing several languages from different parents. Other zones therefore help only to highlight much earlier linguistic affiliation, but not

[^43]the uniqueness of $F$. That individuality can therefore be examined within Zone F itself for the details of the three processes' role in uniting or subdividing the zone.

### 3.1.6 BS, $7>5$, DL in Zone F: Uniting or dividing criteria?

From Table 3.9, some groups based on individual languages in Zone F can be identified. These groups are significant linguistically in that they either unite the zone if they are internally unified themselves, or they divide it if their similarities are not immediately genetic. These groups can be represented in Table 3.10, 3.11, and graphically in (24)

Table 3.IO BS, $7>5$ and DL in Zone F: Summary of significant classificatory criteria

| Feature ${ }^{-5}$ <br> Language | Bantu Spirantization | $7>5$ | Dahl's Law |
| :---: | :---: | :---: | :---: |
| SiSuumbwa | + | + | - |
| KıSukuma | - | - | + |
| KIDakama |  |  | 4 |
| KıNyamweezi ${ }^{37}$ |  |  | 47 |
| KiBende | + | + | - |
| KiniLaamba | - | - | - |
| KıRımi | - | * | $\checkmark$ |
| KiKıumbu | - | * | . |
| IciWuungu | + | -1+? | - |
| KiiRangi | - | . | - |
| KeeMbuwe | - | + | - |

[^44]

IcIWUUngu

SiSuumbwa KiBende
$7 \mathrm{~V}>5 \mathrm{~V}$ KeeMbuwe

## Neither DL, BS mor $7 \mathrm{~V}>5 \mathrm{~V}$ <br> KiKirmber KInILaamba KIRImi KiiRangi

Combined with the individual scenarios observed across the varieties surveyed so far. Bantu Spirantization, $7>5$ and Dahl's Law converge to have a greater impact of linguistically segmenting Zone F into some five groups. In Table 3.10, similar groups are similarly shaded based on broad similarities. The members in these small groups, however, may not belong together if analyzed further, since, for example, the unity of KIKIImbo. KinILaamba, KIRImi and KïRangi is based on negative evidence, the absence of BS, $7>5$ and DL In other words, the number of groups is not fixed since it depends on the details observed. Without the details, the resulting five general groups are shown in (24)

The languages enclosed within one circle share one or more of the three named linguistically diagnostic features. The languages which are not in one circle and do not overlap anywhere
suggest mainly geographically, rather than genetically, derived similarity. For instance, $7>$ 5 in isolation, without Bantu Spirantization, loses its diagnostic meaning. Vowel reduction alone as in KeeMbuwe suggests a different process, since the two, BS and $7>5$ tend to be strongly interrelated causally. Because of that, KeeMbuwe sharing the 5 V feature with SiSuumbwa and KiBende is not significant linguistically, since 5 V is not the result of BS Other features, as noted above, remove ICrWoung o from the SiSuumbwa and KiBende group, since, though ICrWuonge is reported to have 5 V for some speakers, it is mainly a 7V language (Labroussi 1999:375). The groups therefore need some tighter criteria for subgrouping so as to base the classification on genetically relevant features oniy. This fine tuning results in eight groups as shown in Table 3.11. Where there is more than one member, the closely related ones and isolates in each sub-group are put in brackets

Table 3. I/ BS. $7>5$ 5. DL: Phonologically-hased linguistic groups of Zone F?

| (SiSiloombo, SiYoombe) <br> (KiLoongo) | (KimunaSukurna, <br> GInaNtuzu, JinaKirya), <br> (KIDakama) | (KiiRangi, KeeMbuwe) |
| :--- | :--- | :--- |
| (KIKonoongo) <br> (KINyanyeembe, <br> SiGalagaanza) | (KIKımbu, North and <br> south), (KiniLaamba, <br> KInaUshoola, KInIHaanzu) | (GIRwana, GiAhi) <br> (YInyaMunyinanyi) |
| KiBende |  |  |

With so many sub-groups, the representation in Table 3.// questions Zone F as a genetically valid group Guthrie ( $1967.5,6$ ) himself does not claim that zones are based on linguistic
criteria or cohesion. He makes it clear that the differentia he identified and which are summarized in Chapter 2, are not unique for each zone but overlap and are shared by other zones as well. His classification of the Bantu languages into zones is mainly referential. The only major problem with Guthrie's zones is his definition and treatment of units he calls zones and groups. He says that while the zones are mainly geographical. based on proximity, the groups are linguistic (Guthrie 1948). The problem lies in the fact that Guthrie first sought geographical unity and then looked for common linguistic features.

### 3.1.7 Unity of Zone F: Synthesis

The linguistic evidence for Zone F cohesion is not robust, since, for instance, Dahl's Law in SiSuumbwa or some traces of Bantu Spirantization in KISukuma/KiNyamweezi are a result of loans. This appearance of possessing traces of a feature like Dahl's Law in a language brings in the significant role of non-linguistic factors in borrowing and language change, which are of a sociolinguistic nature.

Sociolinguistic explanations are unavoidable facts since they forcefully impinge on and determine the route of the linguistic processes. Linguistic change due to contact is not brought about by purely linguistic factors, but by (mainly) social conditions as well. (Thomason and Kaufman 1988). For instance, it is rare for two linguistic communities to be symmetrical in terms of the control of equal power centres like social prestige or economic advantage. This common asymmetry in prestige due to economic, cultural, technological.
military, demographic or political advantage encourages bilingualism among the less prestigious group members, and pronounced borrowing ensues in such situations. This nonlinguistic aspect of borrowing is explored more in $\mathbf{3 . 2}$ and in Chapter 5. where historical interpretations are also given.

### 3.2. SISUUMBWA-KISUKUMA-KINYAMWEEZI PHONOLOGICAL DEVELOPMENT

The main diagnostic changes in SiSuumbwa, KISukuma and KINyamwezi are three the shift of $7>5$ because vowels feature prominently in BS; Bantu Spirantization; and Dahl's Law, as discussed in this section BS and $7>5$ are discussed together because they are related. SiSuumbwa, having undergone $7>5$, is 5 V , while KISukuma and KINyamwezi are 7 V , the original Proto Bantu vocalism. Athough there are cases where members of the same group display different phonological inventories, some disparities in vowel quality are a pointer to some fundamental difference, either because of different paces and sources of innovation. isolation, or because of contact with different groups at different times and places

On the other hand, BS offers another support for the hypothesis of fundamental difference between SiSuumbwa, KrSukuma and KiNyamwezi. Briefly, it is mainly SiSuumbwa which behaves differently from the two, showing BS, while KISukuma and KINyamwezi do not have the process, except in loanwords. BS is therefore explored in some detail below, followed by DL.

### 3.2.1. BS and $7>5$ in SiSuumbwa, KiSukuma and KiNyamwezi

In this section, example words in two target environments are presented, ${ }^{*} \mathrm{C} / \_$i and ${ }^{*} \mathrm{C} / \_\mathrm{u}$, where * C is any of the eight Proto Bantu consonant phonemes examined in the study. The ${ }^{*} \mathrm{C} / \_$a environment as the unmarked form has been shown in the general section on Zone F The tables in each phonetic environment are also supplied with this unmarked form as an indicator of whether the BS forms from ${ }^{*} \mathrm{C} / \_$i and ${ }^{*} \mathrm{C} / \_\mathbf{u}$ are consistently different from the products of ${ }^{*} \mathrm{C} \_$a. Phonological mutation due to BS is best observed if the ${ }^{*} \mathrm{C} / \_$a environment is also presented because it is most unmarked in Bantu. $\mathrm{PB}^{*} \mathrm{C}_{\mathrm{C}}$ a shows the regular reflex of a sound more clearly without the effect of conditioned assimilation

### 3.2.1.1 Analysis of Bantu Spirantization in SiSuumbwa, KlSukuma and KiNyamevezi

The following examples illustrate the various sounds from Proto Bantu in the context of both internal innovation and external contact, as summarized after each data set

> 3.2.1.1.1 PB *pi
(25) PB *-pik- 'arrive'
/-hika/ SiSiloombo, SiYoombe, KiLoongo
/-Sika/ KimunaSukuma, KiDakama
/-sika/ GinaNtuzu, KIKonoongo
/-figa/ JinaKirya
/-fika/ KINyanyeembe, SiGalagaanza

# - KimunaSukuma, GInaNtuzu, JinaKirya, KiDakama, SiGalagaanza 

(27) $\mathrm{PB}^{*}$-piga 'hearthstone'
/i-higa/ SiSuumbwa, KimunaSukuma
/i-siga/GinaNtuzu
/i-figa/ JinaKirya
/i-figa/ KiNyamweezi
(28) PB *-pic- 'hide'
/-bisa/ SiSiloombo
<- $\beta$ isa/ SiYoombe, KISukuma, KINyamweezi

- KiLoongo
(29) *-pio 'knife'
/mu-syo/ KiLoongo
No-fo/ KiSukuma, KiDakama
/ki-syu/ KiNyanyeembe
/IU-syU/ KiKonoongo
- SiSiloombo, SiYoombe, SiGalagaanza
(30) PB *-pin- 'pinch, scratch'
/-sina/ SiSiloombo, SiYoombe, GInaNtuzu, KiNyanyeembe, KiKonoongo, SiGalayaanza /-suna/ KiLoongo
/-fina/ KimunaSukuma, JinaKirya, KiDakama

Table 3.12 Reflexes, mnovations, extraneous sounds and their possible sources, $P B^{*} p^{\prime}$ i

| Variety and unmarked form | Sound/Innovation (6) ${ }^{38}$ |  | Possible source/comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregular |  |
| SiSiloombo /h/ | $\mathrm{h}(2)^{39}$ | $f(1), s(1), b(1)$ | KINyamweezi?, KiSwahili |
| SiYoombe /h/ | h(2) | $f(1), s(1), B(1)$ | DL, KINyarnweezi?, KiSwahili |
| KiLoongo /h/ | h(2) | $f(1), s(2)$ | F21b, F22d? |
| KımunaSukuma/p/ | f(3) | $\mathrm{h}(1), \beta(1)$ | OL, minor innovation |
| GinaNtuzu /p/ | $s(3)$ | $\int(1), \beta(1)$ | DL, minor innovation, F21a/c? |
| Jinakrrya /p/ | $J(4)$ | $\beta(1)$ | Dahi's Law |
| KIDakama/p/ | $\int(3)$ | $f(1) . \beta(1)$ | Dahi's Law, KiSwahili? |
| KıNyanyeembe /p' | s(2) | $f(3), \beta(1)$ | DL, KiSwahili? |
| KıKonoongo /p/ | s(3) | $f(2), B(1)$ | DL. KiSwahili? |
| SiGalagaanza /p/ | s(1) | $f(1), f(1), \beta(1)$ | DL, SiSuumbwa?, KiSwahili? |

Two regular reflexes are evident in this set of languages, summarized in two phonological processes in Table 3.12 as glottalization in SiSuumbwa. *-pi> h , and palatalization in KISukuma: *-pi >/// and KINyamweezi: *-p >/s/ (See also Table 3.30). The original reflex of *-pi in KISukuma and KINyamweezi points to /s/, which was retained by GinaNtuzu and the rest of KiNyamweezi, except KiDakama. With the *-pi reflexes, KiDakama joins the two dialects of KISukuma as one unit characterized by the further palatalization of $/ \mathrm{s} / 10 / \mathrm{J} /$.

[^45]Glottalization in SiSuumbwa sheds some important light on the chronology of $\mathrm{BS}, 7>5$ and Dahl's Law in the area. One would have expected the reflexes of PB *pi in SiSuumbwa to be homorganic spirants to the stops they replace rather than to the glottal fricative $/ \mathrm{h} /$. This suggests that glottalization preceded BS, thus blocking any chance of its occurrence One interpretation is that BS was acquired later by SiSuumbwa.

On the other hand, each dialect is characterized by irregular reflexes which are extraneous, suggesting borrowing or an operation of other phonological rules. For instance the reflex $/ \mathrm{b} /$ in SiSuumbwa, like $/ \beta$ / in the other dialects, is a result of Dahl's Law, which, once it operates initially in a sequence, blocks BS. In SiSuumbwa, Dahl's Law is absent except in a few words as shown in 3.2.2. For instance, in the word for 'oil', PB * makuta, is /mafuta/ rather than /mavuta/ if SiSuumbwa had Dahl's Law. The status of $/ \beta /$ in SiSuumbwa is also not clear, since it seems to be in free variation with /b/, a situation which does not obtain in KISukuma and KINyamweezi

Another extraneous sound in the PB *pi context is /f/. KINyamweezi, including KIDakama has a shared innovation of /f7, possibly from borrowing. This is not found in KISukuma generally. The presence of /// in /-koofi/ 'flat of hand' in SiSuumbwa, KiNyanyeembe and SiGalagaanza is a good illustration of possible borrowing, possibly from KiSwahili. For SiSuumbwa, it is the only /f/ out of the six words with *-pi in the examples given above. The expected reflex in SiSuumbwa would have been/ikoohi/ and in KıNyamweezi /-koosi/ into
which the majority of the reflexes mutate. Since historically some $\beta$ aSuumbwa, together with the $\beta$ aNyamweezi, were renowned traders and adventurers plying the hinteriand as far as Katanga in the DRC and later the East African coast in the late nineteenth century ${ }^{+10}$, the source of this word might be along the coast, probably from KiSwahili, /koti/ The other members of Zone F which have such a reflex are KeeMbuwe and KiiRangi, which. like KINyanyeembe and SiGalagaanza are located along the once busy trade routes in ivory and slaves, within their neighbourhoods and into the DRC and Zambia, and back to the East African coast (Roberts 1968, Shorter 1968b Kimambo 1993). KrKonoongo in the south and KISukuma and KiDakama in the north were outside the immediate trade route, and the word is not found, highlighting the importance of contact and some type of dominance in the transfer of words. This also suggests that the word is quite recent. since the coastalhinterland trade was prevalent mainly from the $18^{\text {th }}$ century (Kimambo 1993). On the other hand, one anomalous word in a language cannot rule out other possibilities on the source of the /f/ in this environment, as in *pik- in KINyanyeembe and SiGalagaanza. Three possibilities can be suggested for the source of /f/:
(a) since the speakers of SiGalagaanza and KINyanyeembe have been living along a main trade route, they were also active participants in the long distance trade in their own right during the same period, and they independently acquired the sound from the coast,
(b) it is the influence of some BS language like SiSumbwa whose speakers popularized the

[^46]word through trade:
(c) it is an internal innovation in KiNyanyeembe, SiGalagaanza

The last explanation is not strong enough since some plosives apart from/p/ do not change to spirants in the same environment, as shown below, suggesting an external source.

Another case of borrowing is KimunaSukuma /h/ as a reflex of *pi as in ihiga $<\mathrm{PB}^{*}$-piga 'hearthstone', which is likely to have been acquired from SiSuumbwa. In the PB *pi context, /h/is not found in the other dialects of both KiSukuma and KiNyamweezi

The appearance of //J/ in GrnaNtuzu and SiGalagaanza may be a case of inter-dialectal borrowing, possibly from JinaKirya or KımunaSukuma. In the PB *pi context, the regular reflex is /s/ for both, since /f/ or /// are questionable in both.

In the KiSukuma/KiNyamweezi expected reflex, only GinaNtuzu and JinaKirya behave as expected, with/s/ and///respectively.

From the above, two things can be said. First, glottalization in SiSuumbwa started before BS This is indicated by the retlex of PB *pi being /h/ rather than/f/ or any other fricative. Secondly, speakers of languages are not static in space and time, but they interact with different specch environments and speakers of other languages. This has the impact of
introducing new sounds in their languages. This is revealed by both the regular and irregular reflexes of Proto Bantu sounds even within related dialects.
3.2.1.1.2 PB *pu
(31) PB *-pud- 'blow on, blow up'
/-fuula/ SiSiloombo, KıSukuma, KiDakama
'-puula/ KINyanyeembe
/-fulinzya/ KıKonoongo

- SiYoombe, KiLoongo, SiGalagaanza
(32) PB *-pukUd- 'dig up, dig out'
/-fukuula/ SiSiloombo, KINyamweezi
/-sukuula/ GinaNiuzu
/-fuguola/ JinaKirya
- SiYoombe, KiLoongo, KimunaSukuma
(33) PB *-pudo 'foam'
/-fulo/ SiSuumbwa, KıSukuma, KiNyamweezi
(34) $\mathrm{PB}^{*}$-deepu 'long'
/n-dirhu/ KimunaSukuma
/n-dipu, nrpu/ GinaNtuzu
/ -Irhu/ JinaKirya
/ -liihu/ KIDakama, KIKonoongo
'n-dihu/ KINyanyeembe
SiGalagaanza, SiSuumbwa
(35) $\mathrm{PB}^{*}$-pum- 'go out'
/-fumal SiYoombe, JinaKirya, KıNyanyeembe, KıKonoongo, SiGalagaanza
- SiSiloombo, KiLoongo, KımunaSukuma, GinaNtuzu, KıDakama
(36) PB *-pum- 'produce, put forth, display'
/-fumya/ SiYoombe, KINyamweezi
/-funya/ KimunaSukuma, JinaKirya
/-sunya/ GinaNtuzu
- SiSiloombo, KiLoongo

Table 3.13 Reflexes, imnovations, extraneous sounds and their possible sources, PB *pu

| Variety and unmarked form | Sound/Innovation (6) |  | Possible source/comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregular |  |
| SiSiloombo /hv | $f(3)$ | - | - |
| SiYoombe /h/ | f(3) | - | - |
| Kiloongo /h/ | $f(1)$ | - | Insufficient data? ${ }^{41}$ |
| KımunaSukuma / p / | $f(3)$ | h(1) | SiSuumbwa? |
| GmaNtuzu / $p$ / | S(2) | $p(1) ?^{12}, f(1)$ | KıSukurna dialects, internal |
| JinaKrrya / $/$ / | f(5) | $\mathrm{h}(1)$ | KımunaSukuma < SiSuumbwa? |
| KiDakama / $\rho$ / | f(4) | $\mathrm{h}(1)$ | SiSuumbwa? |
| KiNyanyeembe /p/ | f(4) | $p(1) ?, h(1)$ | SiSuumbwa? |
| KıKonoongo /p/ | $f(5)$ | h(1) | SiSuumbwa? |
| SiGalagaanza /p/ | $f(4)$ | - | - |

"Only one word out of six was filled, so the adequacy of the reflex as representative can be questioned.
${ }^{12} / \mathrm{p} /$ as a retention from Proto Bantu suggests a regular feature, while the BS forms suggest markedness although they are the majority and seem more regular.

In the majority of languages, PB *pu yields /[t as a regular change (see Nurse 1979). Most languages surrounding KiNyamweezi and KiSukuma have /f/. For example, within Zone F, KInILaamba and KIKIImbu retain /p/, unless they have borrowed heavily like KIKirmbu North. KiRimi, KeeMbuwe and KiiRaygi have/f/ as a regular reflex of PB *p regardless of phonetic context. SiSuumbwa displays /f/ without exception. For the rest of the SSN dialects, each indicates more than one reflex.

An interesting feature of double reflexes is displayed in the KINyamweezi and KiSukuma dialects. All except SiGalagaanza have double reflexes, mainly regular/f/ and /h/ Within the SSN group, only SiSuumbwa has consistent glottalization, that is, with /h/, especially in the [-superclose] position. Languages outside Zone $F$ with /h/ in the [-superclose] environment include E60. some E50, EJ10/20 and G30. In the PB *pu context, only G60 has /h/ (Nurse 1979:458). If KISukuma and KINyamweezi did not glottalize, then the source of /h/ in the PB *pu context can be G60 which has /h/. Otherwise, the source may be EJIO/20 and SiSuumbwa (F23), as nearest neighbours (assuming that such neighbourliness is ancient). This may explain the presence of irregular reflexes like $/ \mathrm{h} /$ and $/ \mathrm{f} /$ as a result of mixing vocabulary stock from different languages (Labroussi 1999, Batibo 2000). For instance, the following JinaKirya words (which were not included in the list used in the thesis), indicate that there are cases which do not become spirants. These words may not be confined to JinaKirya alone, although this was not checked. The majority are not in Proto Bantu either
(37)
gw-Ipuuna 'rise very early in the morning'
$\beta$-puuna type of wild, creeping, seasonal plant, its leaves resembling those of sweet potatoes, with brightly coloured flowers'
go-pula 'to clope (for a man, as a verb $(v t)$ )' < PB *-pud- 'blow (with mouth)' go-puuga 'to chase away troublesome beings like insects, chickens, or children' gu-puluguna to try to wriggle free from a very confining place, usually by small animals and insects, like a tick in the inner ear'
I-pu/ma-pu 'stomach of ruminous animals like cows, resembling a towel' $<\mathrm{PB}^{*}$-pu 'stomach'

All these words have superclose vowels in them, but they do not undergo spirantization. This existence of BS and non-BS forms in the same environment in JinaKirya or in KiSukuma and KINyamweezi in general suggests two things. It may either mean minor local innovation or borrowing. Local innovation implies that the /f/ from PB *pu is a result of a process which is not BS, but rather it is due to another assimilatory process like palatalization, which resuits in $/ \mathrm{s} /$ in GinaNtuzu and $/ \mathrm{f} /$ in the other dialects.

On the other hand, borrowing cannot be discounted either, since the spirants may be a result of loan words which had spirants, and were added to the non-spitantizing stock found in the language Because of borrowing without adapting the system of the source language, the native forms continue to be used with the loans, resulting in inconsistent reflexes. The loan hypothesis is more consistent, since internal innovation implies regular change across the board in a phonetic context. In this interpretation, any form with a spirant in KıSukuma and KiNyamweezi can be viewed as a loan which might have triggered palatalization in some words, appearing like BS, while retaining the old non-BS forms in other words

Another sub-type of borrowing is the case where all forms with/pu/ are borrowed. This depends on the following scenario: there is regular change in KISukuma or KiNyamweezi of the form PB *pu $\rightarrow / / \mathrm{fu} /$, and then when later words were borrowed with/pu/, they were not affected by the weakening process to $/ \mathrm{fu} /$.

If the loan hypothesis is correct, then both borrowing and minor innovation explain the occurrence of the double or ternary reflexes in KISukuma and KINyamweezi. For instance the presence of $/ \mathrm{h} /$ and BS in SiSuumbwa makes it a good source of influence over KISukuma and KINyamweezi. Another way of looking at it is that some SiSuumbwa speakers were absorbed into the KISukuma/KINyamweezi speech communities in the past and brought their words with them. Some also remained independent, though lived adjacently, and interacted with KISukuma/KINyamweezi speakers, while maintaining their linguistic and cultural identity generally. In turn, this shows that SiSuumbwa culture might have been very influential in the area for a considerable period of time for such widespread loans to occur so pervasively. However, the powerful and higher status of SiSuumbwa of the past has not been documented.

Another interesting point to note for the $\mathrm{PB}^{\text {* }}$ pu reflexes is the length of the vowels in the roots of PB and some daughter languages. For instance, Proto Bantu has a short $/ \mathrm{u} /$, in "pud- 'blow up' while the majority of the retlexes have the long/uu/, except KiKonnongo which has /-fulinsya/ 'blow up'. Two hypotheses can be advanced to explain this
phenomenon of vowel lengthening. Firstly, it might be a rule in SSN which states that penultimate syllables tend to lengthen their vowels in some verbs. This can be iflustrated by JinaKirya whose data is readily available:

| -fưulà | $<\mathrm{PB}$ *-pud- | 'blow' |
| :---: | :---: | :---: |
| -fưulììla |  | 'blow, especially by mouth, in order to soothe' |
| -fula |  | 'drink water and be satisfied' |
| -fülă |  | 'wash clothes' |
| -půlà |  | 'snatch, as the wind would do' |
| -pùlìla |  | 'snatch for (someone)' |


| -fugùòla | dig up' |
| :---: | :---: |
| -fügòlà | 'snatch from the grip of someone, by force |
| -bưkúúla | 'harvest maize' |
| cf -ifügúlà | 'refuse because of anger, disgust' |

From (38) and (39), it seems true that in JinaKirya, vowel length is first and foremost phonological. secondly, it is used to differentiate between shades of meaning between related concepts. In (38) for example, the reflex of *p is both /f/ and / $\mathrm{p} /$ as a semantic strategy. Thirdly. vowel length is also influenced lastly by phonetic context. Hence, penulimate position may be true in some dialects, although not only that in JinaKirya. because -fuulì̀la 'blow in order to soothe' and -pulili 'snatch for (someone)' violate that rule. In Table 3.12, GINantuzu and KINyanyeembe have/p/ as retlexes of $\mathrm{PB}{ }^{*} \mathrm{p}$, indicating that the $/ \mathrm{p} /$ is a retention from PB. This would then suggest that all the other reflexes, /f/ and / $\mathrm{h} /$, are actually loans. or innovations triggered by loans. This is especially true of $/ \mathbf{t} /$.
3.2.1.1.3 PB *-bi
(40) PB *-bin- 'dance'
/-ßina/ KtDakama, KtSukuma
- SiSuumbwa. KiNyanyeembe, KıKonoongo, SiGalagaanza
(41) PB *-bi 'excrement, dung'
/maamvi/ SiSiloombo . SiYoombe
/mazi/ KiLoongo
/maaji/ KiSukuma
/maafi/ KIDakama
/maavi/ KINyanyeembe, KiKonoongo, SiGalagaanza
(42) PB *-bido 'spread, smear'
/-ßila/ KiSukuma, KiDakama, KiNyanyeembe, KtKonoongo,
- SiSuumbwa, SiGalagaanza
(43) PB *-bimb- 'swell'
/-viimba/ SiSiloombo, SiYoombe
/-ziimba/ KiLoongo
/-קiimba/ KıSukuma, KıNyamweezi
(44) PB *-yibi 'thief
/mwivi/ SiSiloombo, SiYoombe
/mwilipi/ KiLoongo. KIKonoongo
/gwiißi/ KimunaSukuma, KıDakama
Inußi/ GinaNtuzu
/gwipi/ JinaKirya
/mwi $\beta \mathrm{i} /$ KINyanyeembe
/mwiizi/ SiGalagaanza
(45) PB *-bita 'war'
/Bita/ SiSiloombo
/vital SiGalagaanza

- SiYoombe, KiLoongo, KiSukuma, KıDakama, KiNyanyeembe, KıKonoongo

The reflexes for each of these languages are KiSukuma $/ \beta /$, KINyamweezi $/ \beta /$ and SiSuumbwa /v/. In SiSuumbwa, the data suggest removing KiLoongo (F23c), leaving only SiSiloombo (F23a) and SiYcombe (F23b). KiLoongo has consistem /z/ as a reflex of PB *bi.

Table 3.14 Reflexes, innovations, extraneous sounds and their possible sources, $P B^{*} b^{\prime}-i$

| Variety and unmarked form | Sound/nnovation (6) |  | Possible source/ comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregular |  |
| SiSitoombo $/ \beta / 1$ | v(3) | $\beta / 1)$ | F21,F22 |
| SiYoombe /p/ | $v(3)$ | - | - |
| KiLoongo /b/ | z(2) | $B(1)$ | F21. F22 |
| KimunaSukuma /[/7 | $B(4)$ | [(1) | ? |
| GmaNtuzu $13 /$ | $\beta(4)$ | [(1) | ? |
| Jinaknya $/ \beta$ | $\beta(4)$ | f(1) | ? |
| KıDakama 位 | $\rho(4)$ | $f(1)$ | F23 and devoice? |
| Kanlyanyeembe $/ \beta$ / | $\beta$ (3) | $v(1)$ | F23 |
| Kikonoongo $/ \beta /$ | $\beta(3)$ | $v(1)$ | F23 |
| SiGalagaanza $/ 1 / 3$ | $B(1)$ | z(1).v(1) | F23 |

The possible influewce of SiSurmbwa is revealed in the irregular imovation to $/ \mathrm{vi} /$ as a reflex of*bi in KINyanyeembe, KIKonoongo and SiGalagaanza. KıDakama has/fi/, devoicing/vi/. KISukuma also has an irregular///, suggesting a second innovation, in addition to the regular $/ \beta /$ reflex. This supports the hypothesis of loanwords from a BS language suggested above
which triggered palatalization before superclose vowels ${ }^{31}$

KiLoongo is consistent in being different from SiSiloombo and SiYoombe, although both have an irregular $/ \beta$ / reflex, suggesting the same source, possibly F21 and F22. In addition, /mwiizi/ in SiGalaaganza seems a borrowed word, probably from KiSwahili. This borrowing is also manifested in example (46) in SiSiloombo and SiGalagaanza. The word for 'war' in the area is not $\mathrm{PB}^{*}$-bita. The extraneous sound $/ \beta /$ in SiSiloombo in this slot suggests borrowing too, since the expected form would be /vita/ rather than/ßita/. SiGalagaanza's reflex /vita/, although identical to the KiSwahili form, might have been acquired through SiSuumbwa and regularized to fit the SiSuumbwa forms.
3.2.1.1. 1 PB * - hu
(46) PB *-bu 'ashes'
/mavu/ SiSiloombo. SiYoombe, SiGalayaanza
/mazu/ KiLoongo
/maßu/ KiSukuma. KIDakama
/mawu/ KiKonoongo

- KINyanyeembe
(47) PB *-bunj- 'break, snap'
/-vuna/ SiSiloombo, SiYoombe, SiGalagaanza
- KiLoongo, KıSukuma, KıDakama, KiNyanyeembe, KIKonoongo

[^47](48) PB *-buda 'rain'

/mvula/ SiSiloombo, SiYoombe, KINyanyeembe, SiGalagaanza<br>leenzula/ Kiloongo<br>/mbula/ KiSukuma, KiDakama, KiKonoongo

Table 3.15 Reflexes, imnovations, extraneous sounds and their possible soarces. PB *hu

| Variety and unmarked form | Sound/innovation(3) |  | Possible source/ comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregutar |  |
| SiSiloombo $/ \beta /$ | $v(3)$ | - | + |
| Siroombe $/ \beta$ t | $v(3)$ | $\checkmark$ | - |
| Kiloongo / $/ 3$ | z(2) | $\checkmark$ | - |
| KımunaSukuma $/ \beta$ / | $\beta(2)^{4 a}$ | - | - |
| GinaNtuzu / $\beta$ / | $\beta(2)$ | - | - |
| JinaKirya /Bt | $\beta(2)$ | - | - |
| KıDakama / $\beta$ / | $\beta(2)$ | - | - |
| KINyanyeembe / $\beta$ / | - | $v(1)$ | F23 |
| Kikonoongo /B/ | $\beta(1)$ | $w(1)^{\text {s }}$ | Phonetic strategy |
| SiGalagaanza / $\beta /$ | - | $v(3){ }^{46}$ | F23 |

Although only three words were found in the PB *bu context, their value is priceless in showing consistent regularity. SiSuumbwa (F23a, b) have/w/. KiLoongo/z/. and KISukuma

[^48]and KINyamweezi / $\beta /$ /.

The disadvantage of having only a few words is also revealed in the data by SiGalagaanza Although its regular reflex in that context is $/ \beta /$, the influence of a BS language is telling. All the examples show /v/ consistently. KIKonoongo shows less influence from a BS language, and the reflex of pre-nasalized $\mathrm{PB}^{*}$ bu is /b/. By inference, a bilabial fricative regular reflex is implied in all the KINyamweezi dialects by this KIKonoongo example.

Another important aspect in the data is the role of pre-nasalized forms. The form for 'rain' PB *mbuda or *mbula, belongs to *b/N , which is not a purely *bu context. However, it is revealing in the way the $/ \mathrm{b} /$ is consistent even in this pre-nasal context. SiSuumbwa (F23a, b) shows a consistent /v/ reflex, while KiLoongo is also consistent in displaying /z/ KINyanyeembe and SiGalagaanza also show a consistent /v/, suggesting the likely former influence of SiSuumbwa in linguistic terms. The only drawback in KINyanyeembe is that only one word was filled, whereas all three are present in SiGalagaanza
3.2.1.1.5 PB *-fi
(49) PB *-kIti 'darkness'
/giiti/ SiYoombe, KISukuma, KIDakama, KINyanycembe, KIKonoongo

- SiSiloombo, KiLoongo, SiGalagaanza

```
(50) PB *-tingird- 'be sleepy, doze'
/-tiindila/ SiYoombe, KiLoongo
/-tiindIla/ KISukuma, KıDakama
/-tiindnIla/ KINyanyeembe, KIKonoongo
/-tiindiila/ SiGalagaanza
    - SiSiloombo
(51) PB *-tina 'base of tree trunk'
/i-tina/ KimunaSukuma, GmaNtuzu, KıNyamweezi
/I-tina/ JinaKrrya
    - SiSuumbwa
(52) PB *-tinga 'long hair, of animals'
/\betau-tiigga/ GinaNtuzu
    /wr-tiigga/ JinaKrrya
KIDakama -
/U-singga/ KiNyanyeembe
/u-singa/ KIKonoongo
/lu-siinga/ SiGalagaanza
    - SiSuumbwa, KimunaSukuma
(53) PB *-piti 'hyena'
/m-fisi/ SiSiroombo, SiYoombe, SiGalagaanza
/em-pisi/ KiLoongo
/m-biti/ KiSukuma, KiDakama, KiNyanyeembe, KIKonoongo
(54) PB *-koti 'nape'
/Bu-kosi/ SiSiloombo
/\betau-kosi/ KrmunaSukuma, SiGalagaanza
/Bu-gosi/ GInaNtuzu
    /u-kosi/ KiKonoongo
    - SiYoombe, KiLoongo, JinaKirya, KiDakama. KINyanyeembe
```

```
(55) PB *-tiku 'night'
/\betae-jiku/ KImunaSukuma, JinaKIIya
\Bu-zikU/ GinaNtuzu, KIDakama, KıKonoongo
/u-ziku/ KıNyanyeembe
/Bo-fuku/ SiGalagaanza
    - SiSuumbwa
(56) PB *-tindIk- 'push'
/-sindika/ SiYoombe, KiLoongo
/-Siindrka/ KImunaSukuma, JinaKirya, KıDakama
/-siindrka/ GrnaNtuzu,
/-siindrka/ KINyanyeembe, SiGalagaanza
    - KiKonooygo, SiSiloombo
(57) PB *-tiku 'rainy season'
/ki-diku/ KImunaSukuma, KiDakama, KINyanyeembe, KIKonoongo
/gi-dikU/ GInaNtuzu
/ji-diku/ JinaKnya
/si-diku/ SiGalagaanza
    - SiSuumbwa
(58) PB *-timu 'spear'
/i-sumu/ SiSiloombo, SiYoombe, SiGalagaanza
/i-cumu/ KiLoongo
/i-cimu/ KiSukuma, KiDakama
/i-kimu/ KINyanyeembe
fi-timu/ KIKonoongo
(59) PB *-tim- 'strike with a spear
    /-cima/ KISukuma, KIDakama
/-kima/ KIKonoongo
    - SiSuumbwa, KINyanyeembe, SiGalagaanza
```

In F23, the PB *ti reflex is /si/ while in F21 and F22, it is /ti/. All three (SiSuumbwa,
KiSukuma and KiNyamweezi) have irregular reflexes, reflecting external sources which also suggest some externally driven innovation. Words with spirants for PB *ti, are not as frequent as those from PB *pi or *pu

Table 3.16 Reflexes, innowations, exiraneous sounds and sheir possible sources, $P{ }^{*}$ *i

| Variety and unmarked form | Sound/innovation(11) |  | Possible source/comment |
| :---: | :---: | :---: | :---: |
|  | Reguiar | Irregular |  |
| SiSiloombo /t/ | s(3) | $\checkmark$ | - |
| SiYoombe /t/ | s(3) | t(2) | F21, F22 |
| Kiloongo /V/ | 5(2) | 1(1). c(1) | F21 |
| KimunaSukuma // | $1(3)^{47}$ | $d(1), j(1), \int(1), s(2), c(2)$ | F23 |
| GinaNtuzu /V/ | (5) | $2(1), s(2), c(2)$ | F23 |
| JinaKriya /t/ | t(5) | $d(1), j(1), \int(1), c(2)$ | F23 |
| KiDakama /V | (4) | d(1), z(1), f(1), c(2) | F23 |
| KiNyanyeembe /t/ | (4) | $d(1), z(1), s(1), k(1)$ | F23, internal |
| KiKonoongo It/ | t(5) | $z(1), s(1), k(1)$ | F23, internal |
| SiGalagaanza /t | (2) | $d(1), f(1), s(5)$ | F23 |

As to the sources of the irregular sound changes, the major one is through borrowing. These are revealed by the regular patterns which are displayed against violations of those expectations. For instance, /gifit/ 'darkness' in SiYoombe suggests borrowing. since the

[^49]regular reflex observed is $/ \mathrm{s} /$, while $/ \mathrm{t} /$ is regular in KISukuma and KINyamweezi. Another observation in the same word is the operation of Dahl's Law in SiYoombe. SiSuumbwa's Dahl's Law status is synchronically minimal generally, as indicated in 3.1 above, suggesting that the word is a loan. Such external influence or later entry into the language can also be observed with regard to KINyamweezi and GinaNtuzu's cases of /s/ and KimunaSukuma and JinaKirya's $/ \int /$. They are cases of palatalization which are only few, occurring in some words like *-tindrk- 'push'. KiLoongo's continued dissimilarity with SiSuumbwa in general with the $/ z /$ reflex emphasizes a probable different historical origin.

Borrowing from KiSwahili is also suggested in PB *-koti 'nape' in the reflexes in F21 and F22 other than/t/. The word refers to collars of shirts rather than 'nape". The expected form in K.ISukuma would be [ $\beta$ Ugoti], without any weakening of ${ }^{*} \mathrm{t}$. It is quite unlikely to be [ $\beta$ okodi] or [ $\beta$ ogosi], since, by Dahl's Law, it is only the first voiceless segment of the stem which is normally dissimilated in order to simplify the pronunciation when two voiceless plosive consonant sounds are adjacent. All words borrowed into KiSukuma are normally subject to Dahl's Law, modified depending on the operation of the law in each dialect ${ }^{\text {t* }}$ The transition from [ $\beta$ ukoti] to [ $\beta$ ukodi] or [ $\beta$ ukosi] does not simplify pronunciation since voice is followed by two voiceless segments as in the original with/t, a situation which is normally

[^50]avoided. In addition GinaNtuzu does not voice a stop when the following segment is $/ \mathrm{s}$ /

For JinaKıya, for instance 'nape' is ghuuni [ŋừ̛ni] <-kướni. But one might also argue that this word comes from PB *-koti by a route so complicated, it may be unlikely to be the source ${ }^{49}$.

Another suspicious case is from PB *tiku 'night' in both KISukuma and KINyamweezi. SiGalagaanza has /Bufuku/, like KiBende's /bufuku/. In Kisukuma and KINyamwezi, the form seems suspect because it violates the expected rules for ${ }^{*} t$ in that environmen. The expected form would be/ßudiku/ by Dahl's Law, unless that was disfavoured by the presence of/-diko/ rainy season' and it had to be spirantized to $/ \mathrm{z} /$ and $/ \mathrm{j} /$ like a reflex of / $\mathrm{d} /$. But that semantic explanation is not adequate since 'rainy season' *bu-tikU (Class I4-bu) and 'night' *kI-tiko (Class $7 \mathrm{kI} / \mathrm{kj}$ ) do not belong in the same noun class in all varieties. A noun class as a categry is a sufficient distinguisher Otherwise there is no motivation for $/ \mathrm{z} /$ and $/ \mathrm{j} /$ as reflexes of ${ }^{*}$. Another explanation for this may be that, the proper word deriving those forms is actually not PB *-tiku, but rather PB *-ciku day of 24 hours: This is also not accurate because, in JinaKirya the expected form would then be/-figu/rather than/-jiku/

[^51]There are also some likely idiosyncratic innovations, or cases when the origin of words is not known. For instance, the word/isumu/ is suspect in SiSuumbwa, just as it is in SiGalagaanza, unless the final $/ \mathrm{u} /$ just spreads to the $/ \mathrm{i} /$ by deleting the feature [ + front ] in $/ \mathrm{i} /$ in anticipatory assimilation. But this is not a productive process. The word might also come from $\mathrm{PB}^{*}$ tum0 'spear' or PB *-tumo 'spear' instead of PB *-timo 'spear' Even in KISukuma and KiNyamweezi, the word is suspect because the reflex of *t as /c/ is not regular, although it is in KiiRangi. The expected reflex is /t/ as it occurs in KIKonoongo

Apart from these few exception PB *ti offers quite regular reflexes, despite the small sample in some languages. For example, the words in Sisuumbwa are limited to only a few out of the eleven in the sample. Only three words are recorded for SiSiloombo, four for SiYoombe and five for KiLoongo, compared to a minimum of nine and a maximum of all eleven in the KISukuma and KINyamweezi group. This is a general difficulty in the data where not all words appear in all languages.
3.2.1.1.6 $P B^{*}-\mathrm{ml}$
(60) $\mathrm{PB}^{*}$-tujg- "pack (luggage)
/-tuungila/ KimunaSukuma
/-tuunga/ GinaNtuzu, KiDakama, KiNyanyeembe, SiGalagaanza
/-tuunganya/ JinaKirya
/-tuuygaania/ KIKonoongo

- SiSuumbwa
(61) PB *-tumbI 'stool'


# /i-suumbi/ KimunaSukuma, GInaNtuzu, KiDakama, KiNyanyeembe, KiKonoongo /I-suumbI/ JinaKitya <br> /i-fuumbi/ SiGalagaanza <br> - SiSuumbwa 

(62) PB *-tum- ‘sew’
/-suma/ SiYoombe, KiLoongo, KimunaSukuma, JinaKirya, KiNyanyeembe

- SiSifoombo, GinaNtuzu, KiDakama, KiKonoongo, SiGalagaanza

Although the data in this set were severely limited, the pattern is similar to the situation where there are ample data, as in 3.2.1.1.5 with PB *ti. The reflexes for PB *tu are/s/ for both SiSumbwa and KiLoonge on the one hand, and /f/ for KiSukuma and KiNyamweezi. The extraneous sound /s'/ in KISukuma and KINyamweezi can be presumed to be from SiSuumbwa, although other sources cannot be ruled out

For instance, the reflex of PB *tu in *-tumbI 'stool' (62), is is/ in all dialects represented. except SiGalaganza, which has /f/. In Zone F, it is үrnyaMunyinanyi and Keembuwe only which have a reflex of /t/, while GIAhi and GIRwana have /R/ The rest have a different lexeme altogether, except North KiKirmbu, which has unexpected/kIsuumbI/ for a nonspirantizing language, while KiiRangi has/icuumbi/. This hints at an external source since a stable language like KiKIImbu is not expected to have such a form, unless it has borrowed it from other languages quite recently.

Table 3. I7 Reflexes, innovations, exaraneous somnds and their possible sonarces, PB */u

| Variety and unmarked form | Sound/lnnovation (3) |  | Possibie source/comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregular |  |
| SiSiloombo /t/ | -50 | - | - |
| SiYoombe /V | s(1) | - | - |
| Kiloongo /t | s(1) | - | - |
| KimunaSukuma /t/ | (1) | S(1) | F23? |
| GinaNtuzu /V | t(1) | s(1) | F23? |
| JinaK<rrya /t/ | t(1) | s(2) | F23? |
| KiDakama It | t(1) | s(1) | F23? |
| Kinyanyeembe /t/ | t(1) | $s(2)$ | F23? |
| KıKonoongo /t/ | t(1) | $s(1)$ | F23? |
| SiGalagaanza /t/ | t(1) | $f(1)$ | F23? |

For KISukuma and KINyamweezi, a reflex with/s/instead of/t/ seems extraneous, since the reflex should be $/ \mathrm{t} /$ according to the majority of the reflexes, which have been taken as more regular. A similar word is that for 'flour', PB *-tu. The word also suggests an external source not far in the past, since it is $\beta u$ su or $\beta$ ufu in KiSukuma. The history of the word implies that cultivating cereals like millet and maize and extracting flour from them might have come somewhat later, perhaps brought into the area by migrants whose languages were already spirantizing. The histories of both KiSukuma and SiSuumbwa speakers have legendary exploits of hunting, indicating that even SiSuumbwa might have got the word from another farming community speaking a different Bantu language relatively recently It is

[^52]especially important to note here that, when dealing with *t>/s/ in the word for sew'. PB
*-tum- Kahigi ( 1988250 ) suggests that the word might have entered SiSuumbwa from KiSukuma, because he found it extraneous, just as it is in KiSukurna. However, he does not question BS. On the other hand, Kahigi (ibid 228) says unreservedly that KiSukuma does not generally spirantize, as exemplified in 3.2.1.2.

Since -suma 'sew' is assumed to be a recent borrowing into both languages, then this can also point to other source languages outside Zone F, and indeed. outside Tanzania. in the DRC or Zambia and beyond. For instance. KIHoloholo (D28) of the DRC has some features which are quite similar to many KISukuma ones ${ }^{51}$. This weakens the assumption that any BSlike change in KISukuma or KINyamweezi is necessarily a result of borrowing from a nearby language or dialect. The nearest choice is only a synchronic convenience. For the past. any source is possible. given the mobility of people and the potential for language contact and borrowing/lending" words.

The irregularity of/s/in KrSukuma can be illustrated from the following JinaKirya words in (63), since/t/ exists widely before [u]. Some of these words are in Guthrie's Proto Bantu list,

[^53]while the majority are not, suggesting that they were omitted. or they are KiSukuma innovations, which can be inventions or borrowing
-tulumeenha 'slide, normally away from the (bed) headrest during sleep'
-tuundaga urinate'(PB *-tund- 'urinate')

I-tuunji 'urinary bladder' (-tund- 'urinate')
-tuga 'catch in the act
ŋwiituuyga 'zombie'
-tuuma 'extend something, usually buttocks in order to block somebody
ntuumba/mituumba (round) container, usually of calabash, especially for storing medicine
-tuna 'kneel, or bend the knees to senior people, not necessarily old, usually as a sign of deference, by women'
-tunola lean forward and raise the buttocks while exposing them'

Ituumbagrja muscle tightener for taming an unruly cow or ox

I-tuundulu 'evergreen tropical shrub of the mimosisidece subfamily'
-tuja 'kneel' (cf toja 'pass and feed domestic animals in a farm, accidentally or deliberately")
-tuußa get hungry
-tuango < nhuungo civet cat' PB
mitugo ${ }^{53}$ 'cattle, domestic animals ${ }^{*}$
-tula 'drive cows from one place to another'
l $\mho$-dutu/n-dutu erect breasts of adolescents and young, unmarried women ${ }^{\text { }}$
-dutuma grow and become luxuriously greener than previously'

IU-tuumbi/nuumbi division of maize, millet, ji-tuundulu abdomen of grasshoppers' sugar cane, etc stalks'
-tuumula puncture ( PB *-tuub'pierce'?)

1-dutußrja light darkness due to heavy clouds'

An interesting word is 'become blunt', PB *-tuup-, which in JinaKrrya is -duuha, although

[^54]because of the limited amount and type of words in our data, it tvas not included. The path of change of this word might have been the following:

PB *-tuup-> -duupa > -duuha or -duuh-ila become blunt'
$\rightarrow \mathrm{DL} \rightarrow$ Glott

This word is significant in telling us that Dahl's Law ${ }^{54}$ in KISukuma occurred first. and then glottalization followed later. Contact with a source for glottalization like SiSuumbwa is later since an earlier contact would result in *p becoming /h/, thus blocking most of Dahl' $s$ Law in those words inherited from Proto Bantu.

From the above discussion, the regular reflexes suggested in Table 3 . 15 have validity, namely. SiSuumbwa/s/, KrSukuma and KINyamweezi /t/

```
3.2.1.1.7PB *-di
(65) PB *-gadi blood'
/ma-gazi/ SiSiloombo, SiYoombe
/mu-gazi/ KINyamweezi
    - KiLoongo, KiSukuma
```

${ }^{54}$ The chronology of four phonological processes in SSN is put together in the conclusion to this chapter (section 3.3). These processes are glottalization (Glott). Bantu Spirantization (BS), $7>5$ and Dahl's Law (DL).
(66) PB *-codi broth'
/n-sUji/ KimunaSukuma, JinaKIrya
/n-sUzi/ GInaNtuzu
/mu-suzi/ KiDakama, KiNyanyeembe, KiKonoongo

- SiGalagaanza, SiSuumbwa
(67) PB *-juudi 'day after tomorrow'
/ma-zưli/ SiSiloombo, SiYoombe, KISukuma. KiNyamweezi
it-zweeli/? KiLoongo
(68) PB *-budi goat
/m-buzi/ SiSiloombo, SiYoombe
/em-buzi/ KiLoongo
/m-buli/ KiSukuma, KiDakama, KiKonoongo
/m-buzi/ KINyanyeembe, SiGalagaanza
(69) PB *-di 'string'
/bu-zi/ SiSiloombo
/Bu-zi/ SiYoombe, KiLoongo
/ßo-ji/ KimunaSukuma, GinaNtuzu
/u-zi/ KIDakama. KINyanyeembe. SiGalagaanza
/ßu-zi/ KIKonoongo
- JinaKıIya
(70) PB *-yedi 'moon'
/kw-eezi/ SiSuumbwa
/ŋw-eeji/ KimunaSukuma, JimaKirya
/jw-eezi/ GinaNtuzu, KIDakama
/mw-eezi/ KINyanyeembe, KiKonoongo, SiGalagaanza

```
(71) PB *}\mathrm{ -codi 'tears'
```

```
/mii-sozi/ SiSiloombo, GmaNtuzu, KIDakama, KIKonoongo
/mïn-sozi/ SiYoombe, SiGalayaanza
/shii-soji/ KImunaSukuma
/ji-isoji/ JinaKIIya
    - KiLoongo, KINyanyeembe
```

(72) PB *-dito 'weight'
/-dito/ KISukuma
- SiSuumbwa. KiNyamweezi
(73) PB *-dudi whistling
KimunaSukuma/shi-|uji, nojil'
/noli/ GinaNtuzu, JinaKirya
/mu-luli/ KıDakama
/mu-lounzi/ KINyanyeembe
/mu-luzi/ KrKonoongo, SiGalaganza
SiSuumbwa
(74) PB *-kadi "wife
/mu-kazi/ SiYoombe, KiLoongo
- SiSiloombo, KıSukuma, KINyamweezi

Three patterns of regular reflexes are revealed in this PB *di environment, making three groups out of the three language groups. The decision to classify them as regular or irregular is based first and foremost on frequency of phoneme occurrence. These regular retlexes are SiSuumbwa/z/; KINyamweezi /z, I/; and KISukuma /I, z(j)/(or (GinaNtuzu/z/ on the one hand, and KımunaSukuma and JinaKirya /j/, on the other).

Table 3.18 Reflexes, intovatuons, extraneons soumas and their possible sources. $P B * / d$

| Variety and unmarked form | Sound/nnovation (10) |  | Possible source/comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregular |  |
| SiSiloombo /If | $z(5)^{55}$ | 1 (1) | KıSukuma/KıNyamweezi? |
| SiYoombe /II | $z(6)$ | $1(1)$ | KıSukuma/KıNyamweezi? |
| KiLoongo /lt | $z$ (4) | I (1) | KıSukuma/KıNyamweezi? |
| KimunaSukuma /I/ | $j(5) ?, 1(2)$ | d (1)? | internal innovation? |
| GinaNtuzu /I/ | $2(3) ? .1$ (3) | $\mathrm{d}(1) ?$ | internal innovation? |
| JinaKıİya /// | I(3)?, I (3) | $d(1) ?$ | internal innovation? |
| KıDakama /I/ | $2(5) ? .1$ (3) | - | SiSuumbwa? |
| KiNyanyeembe /I/ | z (6)?. 1 (1) | - | SiSuumbwa? |
| Kikonoongo / $/$ | $2(6) ? .1$ (2) | - | SiSuumbwa? |
| SiGalagaanza /// | $z(6) ?, 1(1)$ | - | SiSuumbwa? |

KINyamweezi and KISukuma have similar regular reflexes, except for the irregular forms which separate them. The irregular reflexes are SiSuumbwa /I/ and KrSukuma /d/. KINyamweezi, including KIDakama, does not show any irregular forms.

Within the regular reflex list, there is one problem. The regular reflexes for both KISukuma and KINyamweezi are two, $/ z /$ and $/ I$. Their derivation is based on the frequency principle, that the more frequently a sound occurs, the more likely it belonged to the proto language In this case, both $/ 2 /$ and $/ / /$ have an almost equal frequency of occurrence, indicating that they have equal chances of being the regular proto sounds of the proto languages in question.

[^55]However, it is unlikely that the proto sound had two phones in the proto language, each with a status of an independent phoneme. And that is the problem whici has been pointed out in 3.0 above.

The presence of $/ \mathrm{j} /$ or $/ 2 /$ as a reflex of $/ \mathrm{d} /$ then becomes a process of palatalization rather than Bantu Spirantization, as observed above. Hence, these reflexes are based on a mixture of two sounds, $/ \mathrm{d} /$ and $/ / /$, as illustrated below.

Although only one word was available where the reflex for PB *d was also/d/ as in /-dito/ 'heavy' in KISukuma, an important insight can be gained. The example seems to illustrate the fact that, without external influence, KISukuma and KINyamweezi's reflexes for/d/may remain /d/ or change to $/ / /$ regularly in certain contexts, if a Proto Bantu */ and *d are posited as separate phonemes. There are many cases in synchronic JinaKIIya with/di/suggesting the scenario suggested above: they may be examples of the inherited forms from Proto Bantu or innovation by invention or borrowing. However a more plausible explanation is that the words are from some intermediate ancestors, reflecting the reflexes of the protoforms of the immediate ancestor language, Proto KıSukuma. Such synchronic lexemes with/d/indicate a diachronic path, even if / $\mathrm{d} /$ has been lost by many languages. Borrowing is an unlikely explanation, since/-dito/for example, is not attested in the immediate vicinity languages ${ }^{\text {st }}$.

[^56]Some of the words with / di/ and /ii/respectively in JinaKirya include the following:

```
(75)
-diigho [diijo] 'sheep's accumulated dung, especially in sheep house'
-diigimrla 'rumble deeply, creating a low deafening din, mainly of big drums'
-dima 'hold, catch'
-diindißuka become shallow'
-\betaudidiga, -diidi 'person who is arrogant in a foolish way'
-didoha 'become heavy' < PB *-dito 'heavy'
-diimu 'hard, of physical objects'
-gulumaadi tortoise'
-Saanuudi 'male, proper name'
-diba 'accidentally poke into somebody's eye' (cf PB *-dib- shut (eyes))'
```

- Baliga 'throw a long stick, aiming to hit something'
- $\beta$ iliinga 'collect into a heap, heap'
-lilimoka '(of many birds) take off at once, noisily, flying in all directions'
-dugali 'tarantula'
-liinda 'guard'
- liinha [iiiña] 'climb'
-liga 'leave one's straight path during a walk, journey, travel; duck'
- liimbe 'cucumbers'
-jiliili 'wild animals which eat and destroy crops'
-jilimila 'internally feel vibrations because of tremors caused by extreme cold'

From the above contrast between $/ \mathrm{d} /$ and $/ / /$ in JinaKirya, and by extension. in KiSukuma, it is plausible to posit that $/-\mathrm{dito} /$ is an inherited form from Proto Bantu. It is not from DL. since there is no attested form to suggest that it is from $\mathrm{PB}^{*}$-tito, just as /-dakama/ south' is well formed as an inherited form without DL in a dialect like KIDakama 'southern speech' It is not from *takama. The lexeme \{takama\} seems to occur only because of likely backformation. From the list of PB *di words above, the irregular forms based on the *d. *I
assumption display the following patterns in each language, suggesting their lack of native phonotactics.

The case for innovation by inventions or borrowing is supported by a few words like gulumaadi 'tortoise' <Barbaig gumald 'tortoise'. Since such loans from Nilotic members are not widespread except in restricted areas like animal husbandry, it is unlikely that Barbaig is the source of / $\mathrm{di} /$.

The word for 'day after tomorrow', PB *-juUdi, reveals some discrepancies in SiSuumbwa. With $/ 1 /$ as a reflex, it is a regular, inherited form in KISukuma and KINyamweezi. In SiSuumbwa. the expected reflex is /ma-zuuzi/, instead of /ma-zouli/. This form with /// shows two problems. First, the phonetic /Uひ/ is marked in SiSuumbwa, indicating a possible loan, probably from KISukuma or KINyamweezi. Secondly, in SiSuumbwa, it is the only /// out of the total 10 in the sample, as shown in Tahle 3.18, and it is not well-formed within the SiSuumbwa phonological system, especially vocalic, which is presumably 5 V . The / $/ \mathrm{d}$ suggests a 7V language like KISukuma. The phonetic realization of the word violates two important SiSuumbwa rules, 5 V -violation, which shows up here as 7 V ; and $* \mathrm{~d}>\mathrm{V} / \ldots \mathrm{i}$. instead of ${ }^{* d}>z_{-}$i.

Another word is PB *-di 'string'. The word might have entered SSN probably by way of trade to and from the coast, since it resembles the KiSwahili form/uzi/. The retlex is also
suspect in both KıSukuma and KiNyamweezi, since one would expect//ßoli/ or / $\beta$ odi/ rather than /ßuzi/ or /uzi/

With PB *yedi 'moon', SiSuumbwa suggests a different historical path indicated by the different prefix, a non-nasal kw- ${ }^{51}$ instead of the mu-in KISukuma and KINyamweezi. The word can be explained as a dissimilation strategy. KISukuma and KINyamweezi used the choice of $z / j$ as a strategy to avoid the homophone /gweeli/ (KiSukuma) and /mweeli/ (KINyamweezi) 'west'. There are several cases where this strategy is used, exemplified by JinaKirya. This strategy involves either borrowing, palatalization, syllable reduplication, vowel lengthening, tonal change, or other process that is employed to avoid homophony and polysemy as PB *-dim- and PB *-tutum-, shown in (77) and (78)

PB 617*-dim- 'become extinguished'
PB 618*-dim(İd)- 'get lost'
-jimǎ 'become extinguished, faint' (of fire or life of animate entity)
-jimììà 'get lost (become extinguished physically or metaphorically, in the mind)'
-lilimà 'close one's eyes'
-limalimà 'twinkle, as if in the process of disappearing or being extinguished, fade

It is unlikely that $/$-jima/ $<\mathrm{PB} 617^{*}$-dim- become extinguished and/-jimmla/ $<\mathrm{PB} 618^{*}$ -

[^57]dim(Id)- 'get lost' are two independent lexemes, since *-dim(Id)- appears to be only an extension of or derivation from *-dim-, both having the reference of 'disappearing'. Although the original ${ }^{*} \mathrm{~d}$ does not feature, the various strategies of derivation indicate that. the evolution of ${ }^{*}$ d to $\mathrm{J} /, / \mathrm{Z} /$ or $/ \mathrm{j} /$ is an internal innovation unrelated to $B S$, although with external influence from BS languages, the process was accommodated in loan words, though not productively in other lexemes.
(78) PB $1854^{*}$-tùtùm- boil up, boil over'
-dudùma boil over, bubble'
-dùtuma 'become bigger, greener and more luxurious (of leaves)' (Dahl's Law)
-lülüma 'flow noisily (of rivers)'
-hülùmả sprout luxuriously after being trimmed (of sweet potato leaves and similar creeping vegetation)
-duutuma accelerate even faster, as if to hit a target (of stones and other throwable material)" -húuluma 'move swiftly in a flowing motion like an eagle'

Most of the words in (78) seem to have been derived from one lexeme with a sense of accelerating from an initial point of slower motion to a faster rate. The original Proto Bantu form is *-iঠ̀tơm- so the /-tutuma/ form in JinaKinya is not inherited from PB, since [dutuma) as a DL form may be a recent adoption from a BS language which has lost /u/ (superclose) and /J/ (high) distinction. The word was then adapted in the language by following phonological adjustments, like DL, a dissimilation rule of consecutive voiceless syilables containing plosives

The word for 'wife' PB *-kadi is found in SiSuumbwa (74) above, but not in KISukuma
and KiNyamweezi. However, the word for 'wife' or 'woman' found in KISukuma and KINyamweezi, /-kI(I)ma/, is also found in SiSiloombo, as /mukIIma/ with the same phonological shape, instead of being/mukiima/. Such a form makes it suspicious. Its value, however. lies in uniting SSN's lexemes until their linguistic memberships are mixed and confused. This mixture leads to the view that, KISukuma, KiNyamweezi and SiSuumbwa share an immediate node in the hierarchy of genetic affiliation. This inter-mixing of each others' vocabulary may be one of the triggers of and reason for the entry of $/ \mathrm{z} /$ or $/ \mathrm{j} /$ as a reflex of *d and *! in KISukuma and KINyamweezi. This makes the distinction between *d and *I reflexes ditficult to isolate in cases where such a distinction is absent ${ }^{3 *}$. Comparing the words with *d or * in other languages makes things a bit clearer. For instance, while it is not clear whether Proto KISukuma had / $\mathrm{d} /$ or $/ / / \mathrm{in} \mathrm{PB}$ *yedi "moon' because of inter-dialectal mixing, languages like KiKirmbu, a Zone F sister language which has changed little from Proto Bantu, has /mweeli/, while KiiRangi and KeeMbuwe have /mweeri/

A revised picture for regular sound change in PB *di, with the itregular retlexes in brackets can thus be: SiSuumbwa/z/(//); KıNyamweezi////z/), KıSukuma/ld/ $\mathrm{d} /(\mathrm{j} / \mathrm{z})$. Such a division between $/ \mathrm{d} /$ and $/ / /$ words suggests one thing: $/ / /$ and $/ \mathrm{d} /$ are both inherited phonemes. The reconstruction of Meinhof's PB * 1 and Guthrie's PB *d do not constitute an eitherior situation. Rather, it is *I and *d, with some languages treating them as allophones in

[^58]complementary distribution, while in others like KISukuma, they are separate phonemes, a situation analogous to that of voiceless nasals. In some languages/dialects like KISukuma and KIDakama, the voiceless nasals are both phonemic and allophonic, whether appearing as morphologized forms in some words, and hence phonemic, or in homorganic contexts as allophonic realizations of stops after nasal prefixes.
$$
\text { 3.2.1. } 1.8 P B^{*} d / u
$$
(79) -dedu 'beard'
/n-dezu/ KiSukuma, KiDakama, KiNyanyeembe, KiKonoongo /ka-levu/ SiGalagaanza

- SiSiloombo, SiYoombe, KiLoongo
(80) -dugut- 'blow bellows'
/-vuguta/ SiSiloombo, SiYoombe
/-zuguta/ KiLoongo
/-fukuta/ KINyanyeembe
/-tuguta/ KIKonoongo
/-vukuta/ SiGalagaanza
- KimunaSukuma, GinaNtuzu, JinaKitya, KiDakama
(81) -dedu chin
/ci-lezu/ KiLoongo
/Ji-lezu/ KımunaSukuma
/gi-lezu/ GinaNtuzu
/ji-lezu/ JinaKiya
/kT-lezu/ KiDakama
/ki-lezu/ KINyanyeembe, KIKonoongo
/ka-levu/ SiGalagaanza (cf kasaku in F23a,b, class marker 12 ka- instead of Class 7 kI -)
- SiSiloombo, SiYoombe
(82) -dug- 'cook'
/-zuga/ KiSukuma, KıDakama
- SiSiloombo, SiYoombe, KiLoongo, KiNyanyeembe, KiKonoongo, SiGalagaanza
(83) -dub- 'fish, vt
/-zußa/ KiSukuma, KıDakama, KıNyanyeembe, KiKonoongo
- SiSiloombo, SiYoombe, KiLoongo, SiGalagaanza
(84) -du/-dui/-duI knee
/si-vi/ SiSiloombo
/si-vwi/ SiYoombe
/ci-zwi/ KiLoongo
/i-zwi/ KimunaSukuma, GrnaNtuzu, KrDakama
/r-zwi/ JinaKirya
- KINyanyeembe. KIKonoongo, SiGalagaanza
(85) -dugod- open, vt
/-lugola/ KiSukuma, KIDakama. KiNyanyeembe, KrKonoongo
- SiSiloombo, SiYoombe, KiLoongo, SiGalagaanza
(86) -gudube 'pig'
/n-guluße/ SiSiloombo, JinaKirya, KiNyamweezi, KImunaSukuma. GinaNtuzu
- SiYoombe. KiLoongo.
(87) -dut- 'pull'
/-duta/ KimunaSukuma, JinaKirya
-luta/ KiDakama
- SiSiloombo, SiYoombe, KiLoongo, GinaNtuzu, KiNyanyeembe, KiKonoongo. SiGalagaanza
(88) -badu 'rib’

Als-ßavu/SiSiloombe, SiYoombe, SiGalagaanza<br>/lu- $\beta$ azu/ KiLoongo<br>/lu- $\beta$ azu/ KiSukuma, KiDakama, KiNyanyeembe, KiKonoongo

(89) -gudu 'strength, power, effort'
/y-guzu/ SiSiloombo, SiYoombe, KISukuma, KiDakama, KINyanyeembe, KIKonoongo - KiLoongo, SiGalagaanza

From Table 3.19, the regular retlexes are the following: SiSuumbwa/v/: KISukuma/d. V/, and KINyamweezi /// The results for KiSukuma and KiNyamweezi however, seem contradictory, since in both cases, the majority are regularly $/ z /$, except for SiGalagaanza, whose regular reflex is /v/, like SiSuumbwa (F23a,b).

Table 3.19 Reflexes, imovations, cxtrameous soumls and thetr possible sources, I'B *du

| Variety and unmarked form | Sound/innovation (11) |  | Possibie source/comment |
| :---: | :---: | :---: | :---: |
|  | Regular | \|rregular |  |
| SiSiloombo /lt | v(3) | 1(1). $z$ (1) | Loan F21/F22. F42? |
| SiYoornbe Il | v (3) | 2(1) | F21/F22 |
| KiLoongo $A /$ | z(4) | - | - |
| KımunaSukuma A $/$ | 1(1), d(1) | z(7) | recent internal innovation |
| GinaNtuzu // | $1(1)$ | z(7) | recent internal innovation |
| JinaKırya $/ / /$ | 1(2), d(1) | z(7) | recent internal innovation |
| KiDakama IIf | I(3) | z(7) | recent internal innovation |
| KINyanyeernbe $A /$ | $1(2)$ | z(5), f(1) | recent internal innovation |
| Kikonoongo $\mathrm{A} /$ | (12) | z(5). 1 (1) | recent internal innovation |
| SiGalagaanza A $/$ / | $v(4)$ ? | $1(1)$ ? | $1 / /$ from G42, /v/ from F23? |

The reasoning around this apparent contradiction is the same as for $\mathrm{PB}^{*}$-di above, especially with regard to -dito 'heavy' and -duta 'pull'. These words are both d-t or l-t. suggesting Dahl's Law. In fact, Dahl's Law did not apply to them to yield /-dito/ or /-duta/ because /dito/ and/-duta/ were already well-formed. These words are also not attested in languages without DL. For instance, KiSwahili has/-zito/by BS: PB *d $\rightarrow$ Z/ __i. Since KiSwahili does not undergo DL, the original sound is *d rather than *t

To begin with, irregular SiSuumbwa's /// occurs in $\eta$-guluße 'pig' < PB *-gudube 'pig', a likely loan from KiSwahili, just as it is in KISukuma and KINyamweezi. Another likely loan is 7-guzu 'strength' found in F21/F22. In F23a and F23b, it violates the regular change to $/ \mathrm{v} /$, showing that it is not native. Kahigi ( $1988: 267-8$ ) also lends support to this notion of regular /v/

An argument for pervasive appearance of regular reflexes as $/ z /$ in KISukuma and KINyamweezi is the strategy of homophony and polysemy avoidance mentioned above. This strategy seems to have been encouraged especially by borrowed BS features from loan words which proved useful in distinguishing meanings. Such a strategy is illustrated from the JinaKilya example again where the presence of $/ \mathrm{d} /$ and $/ / /$ is not in doubt. The phoneme $/ \mathrm{z} /$ appears mainly when it is necessary to disambiguate homophonous words, especially when those words are in the same lexical class. For instance, in (90), the two words/-duma/ as a verb to 'declare open enmity or opposition with someone' and as an adjective, 'big, huge,
large' are left alone without any modification because the chances of being ambiguous are reduced. They cannot co-occur in the same slot. When they are both verbs, as in /-duusa/ 'dig deeply' of /luusa/ kick', the /d/ is dissimilated in the second word. There arefew exceptions like /-luma/ 'leave abruptly with a great noise, like birds and catle', and /-lùmà/ 'roar like a bull or thunder' $<\mathrm{PB}^{*}$-dum- 'roar, rumble', which are identical in everything, except meaning. The strategy of using a fricative instead of a stop is demonstrated in /dúuma/' 'tail' and/-züuma/ 'give a low, pleasant din, like that of a KiSukuma single-stringed guitar, ndono (KiSwahili zeze) used in $\beta$ uzoli (also known as $\beta$ oyouli) dance'
/-duma/ 'declare open enmity or opposition with someone'
I-dùmá/ big, huge, large ${ }^{-}$
/-dúuma/ 'fail' cf/-zuuma/ give a low, pleasant din, like that of a KıSuhunia single-stringed guitar, ndono'
/-dübula/ 'uproot' (See Batibo 1992b:65) cf -zußulà 'fish out from water' < PB * - dubfish'
/-düdu̇mà' 'swell' /-lülùmà/ 'roar, like a waterfall, or a big, boiling pot full of food'
/-duusà/ 'dig deeply (a hole or metaphorically, pain)' cf /luusà 'kick',
/-düùt(y)a/ 'make string, especially from cotton' cf/-luuta/ 'throw something, especially at someone or something'.
/-dütà/ 'pull' < PB *-dut- pull' (no opposition, so word remains like PB)
/-luma/ 'leave abruptly with great a noise, like birds and cattle'
/-lüma/ 'roar. rumble like thunder, or a buil' $<\mathrm{PB}$ *-dùm- 'roar, rumble' /-lủmă/ 'bite' < PB *-dúm- 'bite', cf/-zumă/ 'curse' < PB *-dum- curse

The irregular / $/ /$ in KISukuma and KINyamweezi therefore is encouraged by many factors. including the internal motivation of dissimilating sounds in order to differentiate meaning, and
also palatalization. Loan words with BS encourage these internal processes even further, by regularizing most phonemes in that environment by analogy, even when there is no semantic motivation. This can be illustrated by causatives in F21 and F22 (KISukuma and KIN yamweezi) which use $\mathrm{I} \rightarrow \mathrm{z}$ or $\mathrm{I} \rightarrow \mathrm{j}^{\prime}$ - (i). Maybe, in F21/F22, PB * $1 \rightarrow 1$. but then, words from F23 (SiSuumbwa) arrived with $\mathrm{PB}^{*} 1 \rightarrow 2 /$. The F21/F22 speakers recognized the connection between $z / 1$ and $\mid$ as reflexes of PB *1, so they started to exploit it in pairs of words and in morphological derivations where it maybe joined with incipient palatalization. Only KiLoongo remains consistent with the /z/ retlexes, without borrowing /i/f from SiSuumbwa, as SiGalagannza likely does. SiGalagaanza sometimes gives the impression that it belongs to SiSuumbwa with its $/ \mathrm{v} /$ reflexes of PB *-du, although the relatively consistent 7V system discounts that possibility.

$$
3.2 .1 .19-{ }^{*} \mathrm{ct}
$$

(92) $\mathrm{PB}^{*}$-cid- 'cease, be finished'
/-fila/ KrmunaSukuma, JinaKırya, KıDakama
/-sila/ GinaNtuzu

- SiSuumbwa, KINyanyeembe. KIKonoongo, SiGalagaanza
(93) $\mathrm{PB}^{*}$-cikU 'day
nu-siku/ SiSiloombo, SiYoombe
/lu-fike/ KimunaSukuma, KiDakama
/lu-siku/ GinaNtuzu, KiNyanyeembe, KiKonoongo
/lu- fig / JinaKirya
/n-siku/ SiGalagaanza
- KiLoongo


# (94) PB *-cinga 'long, straight hair, like those of animals or Europeans' <br> /U-siinga/ KINyanyeembe <br> /u-siinga/ KaKonoongo <br> /lu-siingal SiGalagaanza <br> - SiSuumbwa, KISukuma, KiDakama 

(95) PB *-koci husband'
/n-gooshi / KımunaSukuma, JinaKirya
/y-goosi/ GinaNtuzu
/mu-goosha/ KiDakama
/mu-gooshi / KINyanyeembe
/mu-goosi / KıKonoongo

- SiSuumbwa, SiGalagaanza
(96) PB *-cing- rub'
/-fiing-/ JinaKriya
- SiSuumbwa, KimunaSukuma, GinaNtuzu, KiNyamweezi

The regular reflex of PB *ci in the majority of dialects is /si/, except for three dialects KimunaSukuma, JinaKirya and KiDakama which go one step further by palatalizing /s/ to $/ \mathrm{i} /$. Among this group of three, two, KimunaSukuma and JinaKirya are consistent in a similar way with regard to the most frequent reflex of PB * di which is $/ \mathrm{j} /$, instead of the majority, including GinaNtuzu, /z/ which is similar to the SiSuumbwa and KINyamweezi reflexes, as compared in Tahle 3.21.

Tahle 3.20 Reffexes, imovations, extraneons sounds and their possible sonrces, I' $B$ *ci

| Variety and unmarked form | Sound/Innovation (5) |  | Possibfe source/comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregular |  |
| SiSiloombo /si | $s$ (1) | - | - |
| SiYoombe /s/ | S(1) | - | - |
| KiLoongo /s/ | - | - | - |
| KımunaSukuma /s/ | [(3) | - | - |
| GinaNtuzu /si | s(3) | - | - |
| Jinakriya /si | f(4) | - | - |
| KıDakama /s/ | $f(3)$ | $\cdot$ | - |
| KıNyanyeembe /s/ | s(2) | I(1) | F21 |
| KıKonoongo /s/ | s(3) | - | - |
| SiGalagaanza /s/ | s(2) | - | - |

From Tahle 3.21. KimunaSukuma and JinaKirya are palatal dialects, as is KIDakama to some extent in this context: $\mathrm{PB}{ }^{*} \mathrm{ci} \rightarrow / \mathrm{sil} \rightarrow / \mathrm{ji} /$.

Tahle 3.21. Similarity of most frequen reflexes in SSN from PB * di and I'B "Ci

| Language/Dialect | Most frequent reflex of PB *di | Most frequent reffex of PB *ci |
| :--- | :---: | :---: |
| F21b, F22, F23 | 2 | 5 |
| F21a, F21c, F22b |  |  |

${ }^{59}$ KIDakama (F22b) looks more like KimunaSukuma (F21a) and JinaKirya (F21c) in the context of PB *ci only, indicating some pervasive influence, which can be areal or genetic. The picture in the reflexes of $P B^{*}$ di is like the rest $F 22$ generally, being iz', instead of $/ \mathrm{j} /$.

The irregular reflexes may have their origin from an outside dialect, as is the case of //f/ in KINyanyeembe which is a likely inter-dialectal loan from F2 la or F21c. The most difficult type of loan to detect is one which is well-formed, as if it is inherited directly from PB . For instance, /-siinga/ 'long hair', is contined to KiNyamweezi only, excluding KıDakama

It is unlikely to be a native KINyamweezi word, especially when it is missing in KIDakama, KiSukuma and SiSuumbwa. In addition, its prefix/u-/ or/u-/ is suspicious. since its class marker is supposed to be /lv-/ (singular) or / $\beta \mathrm{v}-/$ (plural or mass). and the loss of $[\beta]$ is marked in KiNyamweezi. Its likely source may be KiSwahili/u-singa/ 'long hair'. On the other hand, the word suggests that KIDakama is a possible member of KISukuma rather than KiNyamweezi. This is true with regard to the division of socio-political entities during the colonial period in Tanzania ${ }^{\text {fin }}$.

[^59]3.2.1.1.10 PB**-ch
(97) $\mathrm{PB}^{*}$-cuk 'pour'
/-fuka/ SiSiloombo
/-fuuka/ SiGalagaanza

- SiYoombe, KiLoongo, KiSukuma, KiDakama, KiNyanyeembe, KiKonoongo
(98) PB *-cub urinate ${ }^{*}$
/-sußaala/ SiSiloombo. SiYoombe, KimunaSukuma, JinaKirya, KıNyamweezi
KiLoongo, GinaNtuzu

The limited data in this word only emphasizes the affinity between SiGalagaanza and SiSuumbwa, on the one hand, and the relatively regular reflex $/ \mathrm{s}$ on the other. However, the lengthened form in SiGalagaanza may imply something important, that the source of the word, and hence the phoneme, is external. It may be the lengthening found in KiSukuma, as a semantic strategy. indicating that the word itself is a loan from a BS language.

The almost uniform reflex of $/$-sußaala/ 'urinate' $<\mathrm{PB}^{*}$-cub- 'urinate across the three languages is interesting in relation to SiSuumbwa. If that one word above is any indication, then, the expected morpheme would be -fubaala, rather than-sußaala. since/s/ is extraneous in SiSuumbwa in this context. Kahigi (1988:197) suggests that/f/ (and/v/) may be from Proto SiSuumbwa, because they cannot be traced back to any other segment since derived /f' is from PB *pu, or some PB *tu and PB *ku. It can also be a loan from Cushitic -fug- to drain out' (Ehret, p.c.). What this means is that, /f/ may be a loan from other languages. All
in all, it would be unwise to draw conclusions based on two words. This also applies to PB *ju, with one word, and PB *ji with none

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3.2.1.1./1 PB *ki
```

(99) $\mathrm{PB}^{*} \mathrm{ki}-$ 'die'
/-ca/ KiSukuma
- SiSuumbwa, KINyamweezi
(100) PB *-kind 'overcome'
/-kiinda/ SiSiloombo, SiYoombe, GinaNtuzu, JinaKiIya, KiDakama, KiNyanyeembe,
KIKonoongo
(/-tiinda/) KımunaSukuma
/-kiinda, -siinda/ SiGalagaanza
- KiLoongo
(101) PB *-yoki 'smoke'
/lyoonsi/SiSiloombo, SiYoombe, SiGalagaanza
/lyoochi/ KISukuma, KıDakama
/lyonki/ KıNyanyeembe
/lyoki/ KıKonoongo

- KiLoongo
(102) PB *-kidi 'soot'
/ma-kili/ JinaKırya, KıNyamweezi
- SiSuumbwa, KımunaSukuma, GinaNituzu

The regular reflexes are SiSuumbwa $/ \mathrm{s} /, \mathrm{KISukuma} / \mathrm{k} /$, and $\mathrm{KINyamweezi} / \mathrm{k} /$. The irregular reflexes in SiSuumbwa suggest borrowing from neighbours, possibly from KISukuma or

KINyamweezi. On the other hand, KiSukuma gets its irregular reflexes by regular palatalization as an assimilatory process from the superclose $/ i /$ to a vowel (or semi-vowei), as with/a/ in PB *-kia $\rightarrow$-cia $\rightarrow$ cä die'. This assimilatory behaviour in KISukuma suggests that. on its own, *i does not palatalize when it is followed by [-superclose] vowels, illustrated in (103).

Table 3.22 Reflexes, innovations, exiraneous sonnds and their possihle somrces. PB *ki

| Variety and unmarked form | Sound/Innovation (4) |  | Possible source/comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregular |  |
| SiSiloombo /k/ | $/ \mathrm{s} /(1)$ | $/ \mathrm{k} /(1)$ | F21/F22? |
| SiYoombe /k/ | $1 \mathrm{~s} /(1)$ | $/ \mathrm{k} /(1)$ | F21/F22? |
| KiLoongo /k/ | - | - | - |
| KımunaSukuma /k/ | $/ k /(0)$ | $1 \mathrm{c} /(2)$ | internal innovation? |
| GinaNtuzu /k/ | $/ \mathrm{k} /(1)$ | /c/(2) | internal innovation? |
| Jinakirya /k/ | /k/(2) | $1 \mathrm{c} /(2)$ | internal innovation? |
| KıDakama /k/ | $\mathrm{k} /(2)$ | /c/(1) | internal innovation? |
| KiNyanyeembe /k/ | /k/(3) | - | - |
| KiKonoongo /k/ | /k/(3) | - | - |
| SiGalagaanza /k/ | $/ \mathrm{k} /(2)$ | $/ \mathrm{S} /(2)^{51}$ | F23? |

Such a process is not BS. More examples are shown in (103) and (104), from JinaKifya. (In JimaKirya, the prefix \{ $\mathrm{ki}-\}$ is regularly changed to $\{\mathrm{ji}-\}$, regardless of phonetic context, as

[^60]in the name of the dialect itself: JinaKirya < GinaKirya $<$ KinaKirya).

```
ki-alo -> caalo 'village, country, land' < PB *-yado 'land'
ki-enge }->\mathrm{ ceenge 'lamp'
ki-yuga -> cuuga hoof
ki-a\jo -> caanjo 'nest', <-anza < PB *-yajja 'spread something (vt)'
ki-yoße }->\mathrm{ cooße 'funnel'
```

-kingilima 'at dawn'
-kilima 'erect poles on the sides of a house as walls' makilimo (noun) 'screening poles at sides of house used as wall'
-kiindagila 'press something, like soil or grain to make it fit space properly'
-kiliija 'smear, rub'
Nyaangaki - proper name, male'

SiSuumbwa does not spirantize when a loan is suggested, as in /-kiinda/ overcome' KiNyamweezi is generally consistent by its regular / $k$ / reflexes, except SiGalagaanza which suggests great external influence, possibly by loans. Even the name of the language itself shows this in the prefix, which is changed from $\{\mathrm{ki}\}$ to $\{$ si\}. The likely source of this influence is SiSuumbwa due to their synchronic proximity

Another significant word which suggests the powerful former influence of SiSuumbwa on its neighbours is /ma-kili/ 'soot' < PB *-kidi 'soot', even if useful by negative evidence only The word is not in SiSuumbwa usage. Significantly, the reflex /makili/ is retained even in varieties like SiGalagaanza and KINyanyeembe which display a flair for replacing the

KINyamweezi forms with a SiSuumbwa lexeme when it is available in SiSuumbwa. The word for 'soot' in the 3 SiSuumbwa varieties is /muvilia/ for SiSiloombo, /muvwitia/ for SiYoombe and /maviila/ for KiLoongo. What this suggests is that, when a word was found in SiSuumbwa, it easily replaced a similar lexeme in SiGalagaanza. If a word was not replaced in SiGalagaanza, then it was likely that that word was not in SiSuumbwa.

In KImunaSukuma. /-tiinda/ 'overcome' suggests a regressive assimilatory gesture of the coronal / $\mathrm{d} /$ which spreads its place feature to $/ \mathrm{k} /$, thus deleting it. It is not a productive process, since it occurs only in a few words.

A comparison can be made between PB * $\mathrm{d} /,{ }^{*} \mathrm{c}$ and * k reflexes in F21/F22b. The irregular reflexes show a pattern which indicates regular palatalization, shown in (105)
(105)

$$
\begin{aligned}
& * 1 \rightarrow z \rightarrow j \\
& * c \rightarrow s \rightarrow f \\
& * k \rightarrow c
\end{aligned}
$$

$$
\text { 3.2.1.1.12 } P^{*}-k u
$$

(106) PB *-poku 'blind (person)'
/mu-hofu/ SiSuumbwa, KiDakama, KiKonoongo
/m-oku/ KimunaSukuma, GInaNtuzu
/m-boku/ JinaKIrya
/m-pofu/ KINyanyeembe, SiGalagaanza
(107) PB *-kupa bone
/i-gufwa/ SiSuumbwa
/li-guha/ KimunaSukuma
/i-guha/ GInaNtuzu. KiDakama. KiNyanyeembe, KIKonoongo
/r-guha/ JinaKilya/
/i-fupa/ SiGalagaanza
(108) $\mathrm{PB}^{*}$-kuba 'chest'
/si-fußa/SiSiloombo. SiYoombe. SiGalagaanza
/ci-fußa/ KiLoongo
/fi-kußa/ KimunaSukuma
/gi-kußa/ GinaNtuzu
/ji-kußa/ JinaKirya
/kI-kußa/ KIDakama. KINyanyeembe
/ki-kußa/ KIKonoongo
(109) PB *-kundo knot'
/i-guundo/ SiYoombe, KiDakama, KImunaSukuma, KINyanyeembe
/i-fuundo/ KiLoongo. SiGalagaanza
/r-guundo/ GrnaNtuzu, JinaKıya

- SiSiloombo, KıKonoongo
(110) PB *-kuta oil
/ma-futa/ SiSiloombo, SiYoombe, KiNyanyeembe, SiGalagaanza
/ma-zuta/ KiLoongo
/ma-guta KiSukuma, KıDakama, KiKonoongo
(111) PB *-kun(d)Ud- 'uncover'
/-fuundukulal SiSiloombo
/-fuundukula/ SiYoombe
/-kuundula/ KımunaSukuma, JinaKırya, KiDakama
/-kunula/ GinaNtuzu
/-kundukula/ KiNyanyeembe, KiKonooŋgo

/-vundukula/ SiGalagaanza<br>KiLoongo

Table 3.23 Reflexes, innovations, extraneous sounds and their powsithe sources, PB *ku

| Variety and unmarked form | Sound/Innovation (6) |  | Possible source/comment |
| :---: | :---: | :---: | :---: |
|  | Reguiar | Irregular |  |
| Sisiloombo /kJ | /ff (4) | /g/ (1) | F21/F22? (DL) |
| SiYoombe /k/ | /f/(4) | /g'(2) | F21/F22? (DL) |
| KiLoorgo /k/ | /f/(3) | $/ \mathrm{z} /(1), / g^{\prime}(1)$ | F21/F22? (DL) |
| KımunaSukuma /k/ | /k/(3) | /g/(3) | DL |
| GinaNtuzu /k/ | /k/(3) | /g/(3) | DL |
| Jinakirya /k/ | /k/(3) | $/ \mathrm{g} /(3)$ | DL |
| KıDakama /k/ | /k/(3) | $/ \mathrm{g} /(3)$ | DL |
| KiNyanyeembe /k/ | $1 \mathrm{k} /(2)$ | $/ f /(2), / \mathrm{g} /(2)$ | F23? |
| Kikonoongo /k/ | /k/(2) | $/ f /(1) . / / /(1) . / g /(2)$ | DL. F23? |
| SiGalagaanza /k/ | /k/(0) | $/ f /(5), / v /(1)$ | F23? |

From Table 3.23. the reflexes are F23/t/; F2land F22 $/ \mathrm{k} /$. This environment is one clear indication that Kisukuma does not spirantize, unless a loan word is involved. When there is an irregular form, it is a voiced counterpart of $/ \mathrm{ku} /$, the $/ \mathrm{gu} /$, which is a result of Dahl's Law (DL) It is this form which makes/ma-zuta/ in KiLoongo, from $\mathrm{PB}^{*}$-kuta oil ${ }^{\mathrm{Gz}}$.

On the other hand, KINyamweezi sometimes shows the effects of Dahl's Law. The absence of the process in a word like $\mathrm{PB}^{*}$-poku, which is realized as/-pofu/ or/-hofu/. suggests two
${ }^{\text {at }} \mathrm{PB}$ *gu $>\mathrm{Zu}$ is treated in more detail while dealing with PB *gu in 3.2.1.1./t
things. First, the two forms suggest a loan word from a language without Dahi's Law, which makes the form unlike that in KISukuma. Secondly, DL may nat be part of KINyamweezin ${ }^{\text {rin }}$ In this case, the word for 'blind' in KINyamweezi has two phonological features which are extraneous: absence of Dahl's Law as in SiSuumbwa, and spirantization of $/ k$ in front of * $u$ to/f'. which is also a regular SiSuumbwa feature (Nurse 1979b 462. Kahigi 1988:257). The presence of/f/ in KrNyamweezi suggests SiSuumbwa's influence which is observed even in KIKIImbu, possibly through KINyamweezi, where the word is /mpofu/

Another interesting word is $\mathrm{PB}^{*}$-kupa 'bone'. Two processes are interesting in this word: SiSuumbwa shows extraneous Dahl's Law which seems to have operated first and blocked any regular spirantization to /f/ when $/ k /$ became voiced. Neighbouring SiGalagaanza. resularizes $/ \mathrm{k} /$ before *u to/f/ under presumably SiSuumbwa influence, but retains /p/ instead of changing it to $/ \mathrm{h} / \mathrm{as}$ in the other varieties. The $* \mathrm{p}>\mathrm{h}$ process (glotalization) is regular in SiSuumbwa, and it might have been blocked in the word, since it might be a loan from elsewhere where PB *pa $>$ fa. SiGalagaanza might have obtained the morpheme |ifupa; 'bone' from elsewhere too, possibly from KiSwahili/mfupa/ Such a form is found neither in KiNyamweezi nor in SiSuumbwa. For both SiGalagaanza and SiSuumbwa, the word seems to be a loan. However, not every word with DL in SiSuumbwa ( $\mathrm{F} 2 \mathrm{ja} / \mathrm{b}$ ) and KiLoongo ( F 23 c ) is automatically a loan, since most J languages have traces of DL . as in PB

[^61]*-kut- be satiated' $\rightarrow /$-gut-/ or PB *-kuta 'oil $\rightarrow$ /mazuta/,/majuta/./mavuta/.

In PB *-kuba/ chest', only SiGalagaanza has a form which is identical to that of SiSuumbwa, /si-fußa/. But as pointed out above, the SiGalagaanza vowel system is 7 V . and this makes any genetic affiliation suspect, despite the similarity. In addition, the data show a one-way influence, SiSuumbwa affecting SiGalagaanza more, indicating that, either some SiGalagaanza speakers have SiSuumbwa origins, or the SiSuumbwa intluence on SiGalagaanza is simply more far-reaching.

Some of the irregularities in the reflexes are not clear. For instance. it is difficult to know why in SSN it is ${ }^{*} \mathrm{k} \rightarrow \mathrm{g}$, in PB *-kundo $\rightarrow$ /-gundo/ 'knot', except in KiLoongo and SiGalagaanza (-fuundo). It appears nevertheless to be an SSN innovation With these caveats, it is clear enough that SiYoombe's form is a likely loan from KiSukuma or KINyamweezi, while SiGalagaanza's/-fuundo/form suggests a SiSuumbwa origin.

### 3.2.1.1.13 $\mathrm{PB}^{*}-\mathrm{gl}$

(112) PB *-dogi 'magic', 'sorcerer', 'witchcraft'
/bu-lozi/, /mu-lozi/, / $\beta \boldsymbol{\sigma}$-lozi/ SiSiloombo, SiYoombe
$/ \beta u$-logi/, /mu-logi/, / $\beta u$-logi/ KiLoongo
/ßu-logi/, /nogi/, //U-logi/ KiSukuma
/Bu-logi/, /mu-logi/, /Bu-logi/ KiDakama
/ס-lozi/, /mu-lozi/, /wo-lozi/ KiNyanyeembe
/u-logi/, /mu-logi/, /U-logi/ KIKonoongo
/ßu-logi/, /mu-lozi/, /ßo-lozi/ SiGalagaanza

Although only one word was available here, the regular reflex of KiSukuma and KINyamweezi remains/y/, supporting earlier patterns. This reflex includes KiLoongo, which departs from its usual BS forms, implying a loan from KISukuma or other non-BS languages. SiSuumbwa's F23a and F23b are consistently regular with /z/is. Only SiGalagaanza and KINyanyeembe show an affinity with SiSuumbwa, the former being identical with SiSuumbwa, while the ambiguity of SiGalagaanza's linguistic membership shows in/ßulogi/ 'magic'.

### 3.2.1.1.1+ PB *-gu

(113) PB *-jogu 'elephant'

```
/n-zovu/ SiSiloombo,SiYoombe, KrNyanyeembe, SiGalagaanza
/en-zozu/ KiLoongo
/n-zoßu/ KIKonoongo
- KiSukuma, KiDakama
```

(114) PB *-gund- be high (of meat), rot'
/-vuunda/ SiSiloombo, SiYoombe
/-zuunda/ KiLoongo
/-guunda/ GinaNtuzu, JinaKıyya, KıNyanyeembe, KIKonoongo

- KimunaSukuma, KıDakama, SiGalagaanza

Like the examples with PB *-gi above, the reflexes of PB *-gu show the clear divide between SiSuumbwa on the one hand, and KISukuma and KINyamweezi on the other, despite the lack

[^62]of sufficient data. SiSuumbwa (F23a, b) shows PB *gu $>/ \mathrm{vu} /$. KiLoongo $/$ zu/ and KISukuma/KINyamweezi/gu/. This assumption of regular reflexes fits the general pattern of BS in F23 shown in other phonemes, or the lack thereof in F21/F22.

Table 3.2+ Reflexes, imnovations, exiraneous somds and their possible sumes. PB *gh

| Variety and unmarked form | Sound/Innovation (2) |  | Possible source/comment |
| :---: | :---: | :---: | :---: |
|  | Regular | Irregular |  |
| SiSiloombo/g/ | /v/(2) | - | - |
| SiYoombe/g/ | /v/(2) | - | - |
| KiLoongo /g/ | Iz/(2) | - | - |
| KımunaSukuma /g/ | /g/(0) | - | - |
| GinaNtuzu/g/ | /g/(1) | - | - |
| Jinakriya /g' | /g/(1) | - | - |
| KıDakama/g/ | /g/(0) | - | - |
| KıNyanyeembe /g/ | /g/( 11 ) | /v/(1) | F23 |
| KıKonoongo /g/ | $19 /(1)$ | /P/(1) | F23? |
| SiGalagaanza /g/ | /g/(0) | /v/(1) | F23 |

Kahigi (1988) gives data which support the above regular patterns, as shown in (115)

| PB and gloxs | SiSumbma | Krisuknma |
| :--- | :--- | :--- |
| *-gubo 'hippopotamus' | -vußu | -gußo |
| *-gido 'taboo' | -zilo | -gilo |
| *-bido soot' | -viila | -ßilo |
| *-takun- 'chew' | -tafuna | -dakuna |

From the general patterns observed above, the following groups can be regarded as related, genetically or areally. The sometimes ambiguous status of SiGalagaanza is indicated by two entries in both the SiSuumbwa and KrNyamweezi traditional groups, illustrated in (116) SiSiloombo, SiYoombe and KiLoongo are core BS dialects in SSN. forming a group of their own. However, KiLoongo departs from SiSiloombo and SiYoombe in a consistent way making it a different entity. The BS features in the rest of SSN appear to be from SiSiloombo, SiYoombe and KiLoongo as nearest neighbours, and therefore as likely sources, rather than as a given fact.

| KiNyanyeembe <br> KIKonoongo <br> SiGalagaanza?$\rightarrow$ | SiSiloombo <br> SiYoombe <br> SiGalagaanza? | KiLoongo | KimunaSukuma <br> GmaNtuzu <br> SinaKirya <br> KIDakama |
| :--- | :--- | :--- | :--- |

In addition, the data continue to support the contention that SiGalagaanza may either be part of SiSuumbwa, or is part of KINyamweezi, but is heavily influenced by SiSuumbwa because
of the irregularity of $\mathrm{PB}{ }^{*} \mathrm{gu}>/ \mathrm{vu} /$, instead of KINyamweezi's $\mathrm{PB}{ }^{*} \mathrm{gu}>/ \mathrm{gu} /$ A similar question can be asked: does KiLoongo really belong with SiSuumbwa if it is so consistently different? Or, how many maximal differences can be allowed to qualify two or more varieties to belong to one genetic linguistic group? These questions are attempted in section 3.2.1.2 by tabulating the general reflexes of SSN in the $\mathrm{Ca}, \mathrm{Ci}$ and Cu environments, where C is any of the 8 target stops dealt with above

### 3.2.1.2. BS in SiSunmbwa, KiSukuma and KINyannveezi: Summary

The tables below examine the reflexes in the various SSN dialects. What is noted is that, the greater frequency of reflexes does not automatically suggest regular change in language. Compared to majority counts, regular changes may be minority cases for many reasons. These regular retlexes can be recovered only by comparing the data in the other phonemes. In some cases, the native reflexes are lost, and without careful cxamination in other environments, inaccurate conclusions may be drawn.

Where a process like Dahl's Law is in operation, a reflex of a phoneme like PB * $p$ being / $\beta$ // or $/ \mathrm{b} /$ in SSN is counted as $/ \mathrm{p} /$, since this change is regular and predictable, presupposing a dissimilated $/ \mathrm{p} /$. Hence the $/ \beta \mathrm{a} /$ or $/ \mathrm{ba} /$ proves the active presence of $/ \mathrm{p} /$ in that context at the same time. This applies to the $\mathrm{PB}{ }^{*} \mathrm{Ci}$ and * Cu contexts as well in other phonemes where DL is relevant. In addition, most of the tables are self-explanatory because of the descriptions in one table applying to the others as well. The aim is to display patterns which have already
been discussed in the previous section in specific examples of PB reflexes in context. Due to limited cases per phoneme per environment, the tables have included all irregular and idiosyncratic instances. A rigorous sifting was not done from the beginning, although higher frequencies indicate probable regular reflexes, highlighting the dubiousness of the irregular occurrences.

Tahle 3.25 Bantu Spirantization in SiStumbwa, KrSukuma and KrNyamwezi *p

| Environment Dialect: | $\begin{aligned} & P B^{*} p a \\ & \text { ( } 50 \text { cases) } \end{aligned}$ | $P B^{*} p i$ <br> (6 cases) | $P B^{*} p u$ () cases) |
| :---: | :---: | :---: | :---: |
| SiSiloombo | $\mathrm{h}(16), \mathrm{p}(9), \mathrm{f}(2)$ | $\mathrm{h}(2), \mathrm{p}(1), \mathrm{f}(1)$ | f(3) |
| SiYoombe | $h(20), p(9), f(2)$ | $h(2), p(1), f(1)$ | f(3) |
| KiLoongo | $h(20), p(6), f(1)$ | $\mathrm{h}(3), \mathrm{s}(1), \mathrm{f}(1)$ | $\mathrm{f}(1), \mathrm{h}(1)$ |
| KımunaSukuma | $\mathrm{h}(19), \mathrm{p}(9)$ | $f(2), h(2), p(1)$ | f(3), h(1) |
| GinaNtuzu | h(16), p(11) | s(2), p(1), $5(1)$ | $f(3), s(1), p(1)$ |
| JinaKırya | $\mathrm{h}(19), \mathrm{p}(15)$ | f(3), p(1) | $\mathrm{f}(6), \mathrm{h}(\mathrm{I})$ |
| KiDakama | $h(16), p(9)$ | $\mathrm{f}(2), \mathrm{p}(1), \mathrm{f}(1)$ | f(4), h(1) |
| KINyanyeembe | $\mathrm{h}(12) . \mathrm{p}(12)$ | $\mathrm{f}(3), \mathrm{p}(1), s(1)$ | $\mathrm{f}(4), \mathrm{h}(1), \mathrm{p}(1)$ |
| KıKonoongo | $\mathrm{h}(12), \mathrm{p}(13)$ | $s(2), p(1), f(1)$ | t(5), h( 0 ), s(1) |
| SiGalagaanza | $h(13), p(15)$ | f(3), p(1) | f(4) |

An important aspect to note in Table 3.25 is the absence of homorganic fricatives in some of SiSuumbwa's reflexes in superclose contexts if it is claimed that the language has BS. For instance, some PB *pi change to /hi/. A plausible explanation here is the effect of chronology in phonological processes. Glottalization seems to have occurred before BS in SiSuumbwa,
resulting in blocking BS due to the bleeding effect of glottalization ${ }^{65}$. Those words with $/ \mathrm{t}^{7}$ might have been borrowed later. In KISukuma and KiNyamweezi the picture is that of mixed reflexes, just as it is in SiSuumbwa, reflecting a possible multiplicity of vocabulary sources (Batibo 2000:25).

Tahle 3.26 Bantu Spirantization in SiSuumbwa. KD゙ukuma and KiNyamwezi PB *h

| Enviromment Dialect! | $\begin{aligned} & P B * h a \\ & (52 \text { cases) } \end{aligned}$ | $\begin{gathered} P B * b i \\ (7 \text { cases }) \end{gathered}$ | $\begin{aligned} & P^{*} B^{*} h \\ & \text { (2 cases) } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| SiSiloombo | $\beta(13), \mathrm{b}(8)$ | $v(3), \beta(1)$ | $v(2)$ |
| SiYoombe | $\beta(21), \mathrm{b}(3)$ | $\mathrm{v}(3)$ | $v(2)$ |
| KiLoongo | $\beta(19)$ | $z(2), \beta(1)$ | z(1) |
| KımunaSukuma | $\beta(25)$ | $\beta(5), \mathrm{f}(1)$ | $\beta$ (1) |
| GinaNtuzu | $\beta(23)$ | $\beta(5), \mathrm{J}(1)$ | $\beta$ (1) |
| SinaKirya | $\beta(31), \mathrm{b}(2)$ | $\beta(4), \int(1)$ | $\beta$ (1) |
| KiDakama | $\beta(24)$ | $\beta(4), \mathrm{f}(1)$ | $\beta$ (1) |
| KiNyanyeembe | $\beta(25), \mathrm{b}(1)$ | $\beta(3), v(1)$ | - |
| KiKonoongo | $\beta(26)$ | $\beta(3), v(1)$ | $w(1)$ |
| SiGalagaanza | $\beta(27)$ | $\mathrm{v}(2), \beta(1), z(1)$ | $v(2)$ |

Because PB *b is not affected by glottalization, the difference between $/ \mathrm{Ca}$ / on the one hand. and $/ \mathrm{Ci} /$ and $/ \mathrm{Cu} /$ on the other is apparent in SiSuumbwa, and to some extent in SiGalagaanza. Any double reflex suggests interference from other phonological systems. Like the reflexes in $P B{ }^{*} p$, the retlexes of ${ }^{*} b$ as $/ b /$ or $/ \beta /$ can be treated as a realization of the same quality,

[^63]and the count is made accordingly. Ambiguous reflexes of PB *b include $/ \mathrm{w} /$ and $/ \mathrm{y} /$ which can be interpreted as phonological strategies of PB *b (weakening / $\beta /$ or loss / $/$ /), rather than being different phonemes. In this context therefore, $/ \mathrm{b} /$ and $/ \beta /$ are treated separately, especially because in JinaKırya they are phonemic, whereas the $/ \beta /$ in $\mathrm{PB}{ }^{*} \mathrm{p}$ is often determined by phonetic context, and therefore a diachronic reflex of PB *p.

Table 3.27 Bantu Spirantization in SiSuumbwa, KrSuknma and KzNyumwezi PB *

| Environment <br> Dialect $:$ | PB *ta <br> $(65$ cases $)$ | PB *ti <br> $(16$ cases $)$ | PB *tu <br> $(16$ cases $)$ |
| :--- | :--- | :--- | :--- |
| SiSiloombo <br> SiYoombe <br> KiLoongo | $\mathrm{t}(25)$ | $\mathrm{t}(29)$ |  |
| $\mathrm{t}(23)$ | $\mathrm{s}(5), \mathrm{t}(1)$ <br> $\mathrm{s}(6), \mathrm{t}(3)$ <br> $\mathrm{s}(3), \mathrm{t}(3)$ | $\mathrm{s}(1), \mathrm{t}(1)$ <br> $\mathrm{s}(2)$ <br> $\mathrm{s}(1), \mathrm{c}(1)$ |  |
| KImunaSukuma | $\mathrm{t}(26)$ | $\mathrm{t}(7), \mathrm{J}(2), \mathrm{c}(2)$ | $\mathrm{t}(6), \mathrm{s}(3)$ |
| GInaNtuzu | $\mathrm{t}(22)$ | $\mathrm{t}(8), \mathrm{s}(4)$ | $\mathrm{t}(9), \mathrm{s}(1)$ |
| JinaKIrya | $\mathrm{t}(33)$ | $\mathrm{t}(8), \mathrm{J}(2), \mathrm{c}(2), \mathrm{s}(1)$ | $\mathrm{t}(9), \mathrm{s}(3)$ |
| KIDakama | $\mathrm{t}(26)$ | $\mathrm{t}(5), \mathrm{f}(4), \mathrm{c}(2)$ | $\mathrm{t}(5), \mathrm{s}(3)$ |
| KINyanyeembe | $\mathrm{t}(27)$ | $\mathrm{t}(7), \mathrm{s}(5)$ | $\mathrm{t}(5), \mathrm{s}(3)$ |
| KIKonoongo | $\mathrm{t}(26)$ | $\mathrm{t}(7), \mathrm{s}(5)$ | $\mathrm{t}(6), \mathrm{t}(3)$ |
| SiGalagaanza | $\mathrm{t}(36)$ | $\mathrm{s}(6), \mathrm{t}(4)$ | $\mathrm{t})$ |

Table 3.28 Bantu Spirantizalion in SiStumhwa, KrSiukuma and KINyamwezi PB *d

| Environment Dialect | $\begin{aligned} & P B^{*} d a \\ & \text { (17 cases) } \end{aligned}$ | $\begin{gathered} P B^{*} d i \\ (35 \text { cases }) \end{gathered}$ | $\begin{aligned} & P B^{*} \text { cht } \\ & \text { (20 cases.s) } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| SiSiloombo <br> SiYoombe <br> KiLoojgo | $\begin{aligned} & 1(75), t(1) \\ & 1(75) \\ & 1(63), t(1) \\ & \hline \end{aligned}$ | $\begin{aligned} & z(12), 1(2) \\ & z(11), 1(2) \\ & z(11), 1(2) \end{aligned}$ | $\begin{aligned} & v(3), 1(2), z(2) \\ & v(3), z(2), 1(1) \\ & z(5), 1(1) \\ & \hline \end{aligned}$ |
| KimunaSukuma GInaNtuzu JinaKriya | $\begin{aligned} & \mid(86) \\ & 1(84) \\ & \mid(123) \\ & \hline \end{aligned}$ | $\begin{aligned} & j(10), l(6), d(1) \\ & z(6), l(6), j(2), d(1) \\ & I(12), j(8), d(1) \end{aligned}$ | $\begin{aligned} & z(7), 1(3), d(1) \\ & z(8), 1(2) \\ & z(11), 1(4), d(1) \end{aligned}$ |
| KIDakama KINyanyeembe KIKonoongo SiGalagaanza | $\begin{aligned} & 1(78), d(1) \\ & 1(71), d(1),(1) \\ & 1(90), d(1), 1(1) \\ & 1(79), d(1), 1(1) \end{aligned}$ | $\begin{aligned} & z(10), 1(5) \\ & z(10), 1(3) \\ & z(10), 1(4) \\ & z(14), l(3) \end{aligned}$ | $\begin{aligned} & z(8), 1(5) \\ & z(5), 1(4) \\ & z(6), 1(4) \\ & v(4), 1(3) \end{aligned}$ |

Table 3.29 Banm Spirantizasion in SiSuambwa, KISnkuma and KiNyamwezi PB ${ }_{c}$

| Enviromment Dialect. | $\begin{gathered} \text { PB ca* } \\ \text { (35 cases) } \end{gathered}$ | $\begin{gathered} P B^{* c i} \\ (9 \text { cases) } \end{gathered}$ | $\begin{aligned} & P^{*} B^{*} \\ & \text { (S cases) } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| SiSiloombo <br> SiYoombe <br> KiLoongo | $\begin{aligned} & s(9), c(1) \\ & s(10), c(1) \\ & s(8) \end{aligned}$ | $\begin{aligned} & s(4) \\ & s(3) \end{aligned}$ | $\begin{aligned} & s(1), f(1) \\ & s(1) \end{aligned}$ |
| KimunaSukuma GinaNtuzu JinaKIrya | $\begin{aligned} & s(16), c(1) \\ & s(12) \\ & s(21), c(1) \end{aligned}$ | $\begin{aligned} & \int(4), j(1) \\ & s(3), \int(2), z(1) \\ & \int(5), j(1) \end{aligned}$ | $\begin{aligned} & s(1) \\ & s(1) \end{aligned}$ |
| KrDakama KINyanyeembe KIKonoongo SiGalagaanza | $\begin{aligned} & s(12), c(1) \\ & s(11) \\ & s(11) \\ & s(9), c(1) \\ & \hline \end{aligned}$ | $\begin{aligned} & \int(4), z(1) \\ & \int(2), s(2), z(1) \\ & s(4), z(1) \\ & s(3) \end{aligned}$ | $\begin{aligned} & s(1) \\ & s(1) \\ & s(1) \\ & s(1), f(1) \end{aligned}$ |

Tahle 3.30 Banu Spirantization in SiSunmbwa, K_Sukuma and KINyamweai PB *j

| Environment Dialect . | $\begin{aligned} & P B * V V \\ & \text { (2t cases. } \end{aligned}$ | $\begin{gathered} \text { PB *i } \\ \text { (0 cases) } \end{gathered}$ | $P B *_{u}$ <br> (0 cases) |
| :---: | :---: | :---: | :---: |
| SiSiloombo <br> SiYoombe <br> KiLoongo | $\begin{array}{ll} z(10) \\ z & (9) \\ z & (7) \end{array}$ | - | - |
| KimunaSukuma GinaNtuzu JinaKirya | $\begin{aligned} & z(9), \operatorname{ly}(1), j(1) \\ & z(8), \operatorname{ly}(2) \\ & z(11), \operatorname{ly}(3), j(1) \end{aligned}$ | - | - |
| KIDakama KINyanyeembe KIKonoongo SiGalagaanza | $\begin{aligned} & z(8), j(1) \\ & z(8), \mid y(1) \\ & z(9), \mid y(2) \\ & z(9), \operatorname{ly}(2) \\ & \hline \end{aligned}$ | - | - |

Table 3.31 Bantu Spirantization in SiSuumbwa, KLSukuma and KiNyamwezi PB*k

| Environmena Dicalect 1 | $\begin{aligned} & P B * k a \\ & \text { (9+ cases) } \end{aligned}$ | $P B{ }^{* k i}$ <br> (5 cases) | $\begin{aligned} & \text { PB *kt } \\ & \text { (Ilcoses) } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| SiSiloombo | k(41) | $\mathrm{s}(1), \mathrm{k}(1)$ | $\mathrm{f}(3), \mathrm{k}(1)$ |
| SiYoombe | $\mathrm{k}(44), \mathrm{h}(1)$ | s(1), k(1) | f(3), $k(2)$ |
| KiLoongo | $\mathrm{k}(41), \mathrm{h}(1)$ | s(1) | f(3), k(3) |
| KImunaSukuma | k(39) | c(2), k(1) | k(8) |
| GinaNtuzu | k(39) | $\mathrm{c}(2), \mathrm{k}(2)$ | $k$ (7) |
| JinaKırya | k(60) | $k(3), c(2)$ | k(7) |
| KıDakama | k(38) | k(2), c(1) | $k(6), \mathrm{t}(1)$ |
| KiNyanyeembe | $\mathrm{k}(41)$ | k(3) | $k(3), f(2)$ |
| KiKonoongo | k(46) | k(3) | k(3). f(2) |
| SiGalagaanza | k(50) | $k(2), s(2)^{\text {mif }}$ | f (5) |

[^64]Tahle 3.32 Buntu Spirantization in SiSutumbwa, KLSukuma and KINyvamuezi PB *g

| Ewvironment Dtalect : | $\begin{aligned} & P B^{*} \\ & (+3 \text { cases }) \end{aligned}$ | $\begin{aligned} & P B_{i} \\ & \text { (l or } 3 \text { cases?) } \end{aligned}$ | $\begin{aligned} & P B^{*} \text { n } \\ & \text { (2 cases) } \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| SiSiloombo | g(17) | $z(3)^{67}$ | $\mathrm{v}(2)$ |
| SiYoombe | g(18) | z(3) | $v(2)$ |
| KiLoongo | $\mathrm{g}(15)$ | $\mathrm{g}(3)$ | z(2) |
| KımunaSukuma | $\mathrm{g}(26)$ | $\mathrm{g}(3)$ | - |
| GinaNtuzu | g(19) | $\mathrm{g}(3)$ | g(1) |
| JinaKirya | g(31) | g(3) | g(1) |
| KıDakama | $\mathrm{g}(16)$ | $\mathrm{g}(3)$ | - |
| KINyanyeembe | g(22) | $g(3)$ | $g(1), v(1)$ |
| KIKonoongo | g(23) | $\mathrm{g}(3)$ | $g(1) . \beta(1)$ |
| SiGalagaanza | g(21) | $z(2), \mathrm{g}(1)$ | $\mathrm{v}(1)$ |

The above tables include all the eligible cases, and they confirm the divisions of SSN reached in (116). While KiLoongo continues to be unique within F23, especially by having /z/ where F23a,b have /v/, SiGalagaanza displays a difference within F22 by resembling F23 in many reflexes. But as Kahigi (op cit) points out, frequency of occurrence on its own is not a measure of genetic cohesion. The double reflexes in this group especially make even the small amount of data count. Although sometimes absent or even contradictory in some cases, as in the case of SiGalagaanza displaying more BS examples than non-BS, these bits of data fit the general pattern as part of the bigger picture. One of the major reason of such extraneous similarity is contact, facilitated by other factors in which speech communities of those

[^65]languages operate, such as the sociolinguistic. On the other hand. BS is only one measure Dahl's Law in SSN may present yet another picture before the combined effect of $7>5, \mathrm{BS}$ and DL are assessed.

### 3.2.2. Dahl's Law in KiSukuma, KiNyanuweezi and SiSuunbwa

As pointed out above, in the general section, Dahi's Law is a dissimilatory process in some eastern Bantu languages whereby a sequence of two voiceless obstruents, usually stops, in consecutive syllables in a word, voices the first. The process is active only in KISukuma and KiNyamweezi, while in SiSuumbwa it does not occur except in loanwords or in residual words, as is the case of DJ and EJ languages with whom SiSuumbwa possesses a close relationship.

### 3.2.2.1. Dahl's Law in KrSakuma

The process of Dahl's Law in KimunaSukuma follows the classic pattern of voicing the first of two consecutive voiceless stop segments. While JinaKrrya behaves classically to a point, it dissimilates differently when other non-stop voiceless segments are involved, mainly fricatives like $/ \mathrm{s} /$ and $/ \mathrm{J} /$. On the other hand, GinaNtuzu behaves sometimes like KimunaSukuma, and at other times like JinaKnya, as shown in (117) and (118) for KimunaSukuma, GmaNtuzu and JinaKirya respectively, while all three show their individual differences as well:

| KommaSuhama | GDaNmaz | SinaKiza | Proto Bamh |
| :---: | :---: | :---: | :---: |
| ki-diku | gi-diku | ji-diku | < *-tiku 'rainy season' |
| ma-dete, | ma-dete | ma-dete | <*-tete 'reeds' |
| ko- $\beta$ ita | go- $\mathrm{Brta}^{\text {a }}$ | go- $\beta$ rta | < ${ }^{\text {-pIt- }}$ 'pass ${ }^{\text { }}$ |
| $\beta 0-\mathrm{jiku}$ | $\beta$-ziku | $\beta \mathrm{u}$-jiku | <*-tiku night'? |
| ku-geeha | gu-yeeha | gu-geeha | <*-keep- diminish. grow less* |

The examples in (117) display the classic dissimilation of Dahl's Law. The only difference is the regular infinitive *k $\mathbf{*}$ - change to/gu-/ in GrnaNtuzu and JinaKirya on the one hand. and the $/ \mathrm{j} / \mathrm{vs} / \mathrm{z} /$, or $/ / /$ and $/ \mathrm{s} /$ on the other, displayed by KimunaSukuma and JinaKirya together, and GinaNtuzu alone, shown also in (118)

| KimuraSukuma | CidaNiuzu | JinaKıİa | Proto Buntu |
| :---: | :---: | :---: | :---: |
| ku-jika | gu-sika | gu-figa | <*-pik- 'arrive' |
| lo-jiku | lu-siku | lu-figu | <*-tiku day ${ }^{\text {c }}$ |
| ku-seka | go-seka | gu-sega | <*-cek- laugh |
| ku-gesa | gu-gesa | gu-gesa | <*-kec- harvest, reap |
| sato | sato | sado | <*-cato *python |
| i-saka | 1-saka | 1-saga | <*-caka *hicket, bush* |

### 3.2.2.1.1 Dahl s Lav in KDmuSukuma

In KimunaSukuma, the process does not need much comment since it has the default mechanism of voicing the first of the two consecutive voiceless stops. If the first syllable contains no stop, then DL becomes unnecessary. Out of the 44 words shown in Table 3.6. only 6 or $14 \%$ do not undergo Dahl's Law. These words are indicated in (119), and they have one thing in common the initial syllable is a fricative synchronically. while only one voiceless stop consonant occupies the second syllable slot. The phoneme $/ h /$ in haano 'place $<^{x}$-pantu, also shows its true membership, since it is this phoneme only which does not undergo Dahl's Law even in JinaKirya, as shown in (119) below, indicating that it does not have stop qualities necessitating dissimilation:
(119) kU-fika 'arrive’<*-pik-, Iu-fiku<*-tiku 'day': kU-seka<*-cek- laugh': haanu 'place'<*-pantu; sato 'python' < *-cato, i-saka 'thicket, bush' < *-caka.

While KimunaSukuma shows the unmarked form of Dahl's Law. JinaKirya is located on the extreme end of the law's spectrum. The scenario in KimunaSukuma in which DL does not operate when a tricative is syllable-initial indicates that the change of ${ }^{*} \mathrm{p} \rightarrow \int . \mathrm{h}$ and ${ }^{*} \mathrm{c} \rightarrow \mathrm{s}$ is a total deletion of the CPlace and manner features of *p and *c respectively The resulting fricatives found synchronically in KimunaSukuma are treated as new phonemes rather than stop derivatives when they occupy the first syllable slot. Another, more plausible and simpler explanation indicates that KımunaSukuma requires an initial stop only in order to trigger DL. When a stop is root-initial, the synchronic fricatives in second syllable position trigger DL,
as shown in (120). When /s/ or /// are initial, as in (119), then no DL occurs because there is no target $/ \mathrm{p}, \mathrm{t}, \mathrm{k} /$ as default triggers.
/-gesa/ < PB *-kec- 'harvest'
/-guusa/ < PB *-kuc- 'rub'
/-ßisa/ (Lenition) < *-bisa (DL) < PB *-pic "hide'
$/$ - $\beta$ asa/ (Lenition) $<$ *-basa (DL) $<\mathbf{P B}$ *paca 'twin'

When (119) only is used. the words seem to indicate that when Dahl's Law started the / $/ /$ and /s/ were already established as independent phonemes in KimunaSukuma. If Dahl's Law had applied much earlier, the fricatives would not show up in those words, and regular DL would operate For instance, PB *-caka would be/i-jaga/ in KımunaSukuma rather than/i-saka/. The earlier occurrence of palatalization or *b and *c lention is not convincing, since it is contradicted when (120) and (121) are compared with (119). A better explanation is that the words failing to undergo DL like those in (119) are affected by the bleeding effect of a preceding process like palatalization. When the dialects diverged. DL began to operate differently. This difference of DL operation suggests a long period of separation between KimunaSukuma and JinaKirya for the two to treat the same words differently with regard to Dahl's Law.

In (121), chronology indicates that Dahl's Law started, and then $\mathrm{PB}{ }^{*} \mathrm{c}$ and *b lenition
followed as a regular reflex: $P B * p \rightarrow b \rightarrow \beta$. The process is not ${ }^{*} p \rightarrow \beta$ because $/ b /$ remains unaccounted for. Because of this chronology, it is important to distinguish the operation of Dahl's Law and lenition in / $\beta$ isa/ and / $/ \beta$ asa/. The $/ \beta /$ is from $/ \mathrm{b} /$ rather than directly from /p/

### 3.2.2.1.2 Dahi's Law in JinaKinua

Of the 51 words, 49 undergo Dahl's Law in JinaKirya. Because of this high number of cases undergoing the process, there are two things to note. Firstly, JinaKirya dissimilates classically like KimunaSukuma. But in JinaKirya, if one of the voiceless segments is not a stop, then the stop is voiced, regardless of its second position. Secondly, JinaKirya also consistently voices all prefixes with voiceless stops as a morphologized feature, like the infinitive marker ku-

| na | to | ku | pep | a | $\rightarrow$ | กa | dv | go | bep | a |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15 | neg | $2 s$ | mislead | sufx |  | 1s | neg | 2 s | mislead | sufx |
| to | tI | naa | kop | a | $\rightarrow$ | du | dI | naa | gop | a |
| $1 \rho$ | neg | pres | borrow | sufx |  | $1 \rho$ | neg | pres | borrow | sufx |
| $\beta 3$ | ta | laa | laal | a | $\rightarrow$ | $\beta$ a | da | $1 a \mathrm{a}$ | laal | a |
| $3 p$ | neg | futfar | sleep | sufx |  | $3 p$ | neg | futfar | sleep | sufx |
| natokopepa tutinaakopa $\beta$ atalaalaala |  | , nadugubepa 'I will not misiead you' <br> - dudinaagopa We have not borrowed' |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

Other morphemes which have been morphologized are the second person tu- which becomes du- and negative marker -ta- or -ts-, which become -da- or -dt-as permanent features. This point is illustrated weli with the examples in (118) and (122)

The exceptions to Dahl's Law in JinaKirya are two out of 51 words, the percentage of occurrence of Dahl's Law being 96\%. These two exceptional words are:

```
(123)
haano 'place' < *-panto
suha 'calabash' < *-cupa
```

These two words raise one question: why only these two out of 51 ? The answer strongly suggests a semantic strategy where homophonous words are dissimilated phonologically to avoid polysemy.

PB *cúpa jar, calabash bottle'
jùbà 'bottle' < KiSwahili cupa 'bottle' sühā 'calabash'
-sùbà 'worry, hesitate'
-jöbǎ 'walk or run in rain, soaked in water'
-svibilia ' dip a bolus of food in (meat) soup'
PB *-panto 'place'
haane 'place'
$\beta$ anno 'people'

The dissimilated words can be minimal pairs except for one element, in this case, the change of a stop to $/ \mathrm{h} /$. Other devices are used, including tonal distinction and borrowing. Speech context is also used where the strategies are exhausted and two words remain identical. The words in $(124,126)$ are all extant in JinaKrrya, indicating that the semantic strategy is aided greatly by borrowing. In this sense, glottalization offers a rich source of new vocabulary. These words are not purely minimal pairs, but they suggest the parallel presence of $/ \mathrm{h} /$ and $/ \mathrm{p} /$ or /b/ as an indication of interference from another phonological system. Although $/ \mathrm{h} /$ is a fricative, like $/ \mathrm{s} /$ or $/ \mathrm{f} /$, it does not trigger DL even in JinaKirya. This explains why there is no DL in PB *panto 'place'. In JinaKIIya, the word for 'place', haante, is also haleße. DL applying to PB *pantu would have given /banto/ where $\beta$ aano place' would be homophonous with $\beta$ aanu 'people'. Where there is homophony, there is almost always a way of avoiding it, including the failure of a law like DL to operate, or borrowing.

### 3.2.2.1.3 Dahl's Law in GdaaNuzu

GInaNtuzu occupies a middle position in that it behaves like KImunaSukuma in some respects and like JinaKirya in others, while a third pattern is established by its own unique features. It undergoes the process by 39 out of 45 words, or $87 \%$, while KimunaSukuma is $86 \%$ or 38 out of 44 words. This places them on the same node for Dahl's Law, since even the 6 divergent words in GinaNtuzu are exactly the same as in (119) above. For instance, GrnaNtuzu's Dahl's Law does not respond to fricative sounds like/s/, as in /isaka/ thicket. bush', which is like KimunaSukuma /isaka/ On the other hand, GrnaNituzu has generally
morphologized the infinitive marker kv- to gu-like JinaKIIya as illustrated in (I22). Can this have been a borrowed feature from Southern Nilotic. where in that language group, ${ }^{*} k>g$ (Ehret $1971: 100)^{?}$ This strengthens the notion of centre and periphery since in this case the populations speaking JinaKirya and KımunaSukuma are bigger than those speaking GinaNtuzu. These big populations create around themselves larger protective peripheries or shells ${ }^{\text {six }}$ which ensure that the core remains relatively intact during contact with other varieties, including inter-dialectal contact.

Using the linguistic tree metaphor for the three dialects of KISukuma, JinaKIrya would be farthest from the root of proto KrSukuma , because of the more far-reaching changes of Dahl's Law from the version of the law that affects/p, t, k/ only. GinaNtuzu would follow as a more conservative version, while KimunaSukuma is the most conservative of the three.

### 3.2.2.2. Dahl's Law in KiNyamweezi

In KINyamweezi the rule is described as an almost exceptionless root structure condition in which, when two adjacent syllables in a stem both start with a voiceless plosive, the first one becomes voiced (Maganga and Schadeberg 1992:23). The syllable structure of a root with two adjacent voiceless consonants is not found synchronically in KiNyamweezi because of this root structure condition. When either two of the following are in adjacent syllables, the

[^66]first must be voiced: /p, t, $k, f, h, m h(m), n h(n), \eta h(\eta) /$ where either one occupies $C_{1}$ or $\mathrm{C}_{2}$, with the following structure $\overline{\mathrm{C}}_{1} \mathrm{~V}(\mathrm{~V}) \mathrm{C}_{2}(\mathrm{~V})$.

A few exceptions to this condition are the following, which are attributed to inter-dialectal borrowing (Maganga and Schadeberg (ibid:24)

```
-heha 'winnow' vs -beha 'smoke (tobacco) (genuine exception)
-hofu 'blind' vs -boku 'blind' (KiSukuma)
teetele 'indeed' vs teletele (original form of teetele)
mpaka 'until' vs mpaka 'until' (KiSwahili)
```

The second and fourth examples -hofu 'blind' and mpaka until' clearly suggest borrowed words from languages without Dahl's Law. The third, teetele indeed indicates that one $/ \mathrm{t} /$ was lost, although the syllable was not, and therefore Dahl's Law does not apply because the root structure is well-formed

Of these, heha 'winnow' and -beha 'smoke (tobacco)' are more interesting. The alternation suggests the possibility of a lexical technique of semantic distinction so as to avoid homophony, as observed for KiSukuma. This JinaKirya case illustrates the technique:

PB *-pep- blow, winnow'
-bepả 'seduce and mislead a close friend/or follower, by deception (blow mentally)'
-behă 'smoke (tobacco, medicinal leaves, marijuana, etc)'
-hehă 'winnow' (would expect -beha < PB *-pep-)
-heèhà (of the sun), be on the western horizon and be less burning, with gentle breezes'
peèhà* (the word does not occur, and therefore -heehà is regular)
PB *-pod- 'cool down, get cured'
-polă 'cool, be calm'
-holă be peaceful. without disease or war'

If these cases of homophony avoidance are taken into account, it becomes true that
KiNyamweezi (in fact this refers to KiDakama only), like KiSukuma, especially KImunaSukuma, makes no exceptions to classical Dahl's Law where it occurs.

On another note, the KiNyamweezi referred to by Mayanga and Schadeberg (1992) is the KıDakama variety which agrees with that analysis. The other varieties, notably SiGalagaanza, KIKonoongo and KINyanyeembe display more exceptions than regularities, as shown in Tahle 3.6 above. These dominant exceptions can be interpreted as internal linguistic dynamics, or external loans. The questions to be asked include: (a) Did SiGalagaanza, KIKonoongo and KINyanyeembe once have DL, but replaced many words with DL by loans which did not have DL? (b) Were SiGalagaanza, KIKonoongo and KINyanyeembe once without DL but borrowed many words with it? The first explanation is possible, but unlikely because there is no motivation, while the second is more plausible.

### 3.2.2.2.1 Dahi's Lanv in KiDakama

Dahl's Law in KIDakama is very similar to that in Kimunasukuma because both follow essentially the same rules of classical Dahl's Law, unless they are interfered with by loans. dialect-specific innovations or homophones. A few examples illustrate this in (127):

| KrDakana | Kımurasiskuma | Ciloss |  |
| :---: | :---: | :---: | :---: |
| ku-daha | ko-daha | 'draw water' | < -tapa |
| i-datu | i-datu | 'three' | <*-tatu |
| lu-jiku | lo-jiku | day ${ }^{\prime}$ | <*-tiku |
| i-saka | i-saka | 'thicket, bush | ' < *-caka |
| i-dako | i-dako | buttock' | < -tako |
| mu-hofu | moku | 'blind person' | , <*-poku |
| mu-gate | 刀-gaatı | 'bread' | <*-kaate |

### 3.2.2.2.2 Dahl's Law in KIKonoongo and Kivyanyeembe

Of the 44 Dahl's Law sample words, only 21 or $48 \%$ undergo the process in KiKonoongo. and 18 words or $44 \%$ in KINyanyeembe. The majority of the words at $52 \%$ and $56 \%$ respectively do not undergo Dahl's Law. As dialects of a language which are "expected to have" Dahl's Law, such a low percentage of expected behaviour and a conversely high percentage of irregular features represents a marked situation. For a full list of these exceptional words, see Appendix 6. Examples of words which do not undergo Dahl's Law, include the following common predictable ones. They are also compared with those from

KINyanyeembe and SiGalagaanza, within the KINyamweezi group, and then with SiSiloombo, from SiSuumbwa. KiSukuma and KrDakama follow the classical pattern:

| Gloss | Konoongo | Nyanyeembe | Galagaanza | Siloombo | Proto Bantu |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'three' | idato, itato | i-dato | i-lato | i-satu ${ }^{69}$ | <-tato |
| 'be satiated' | -ikuta | -ikuta | -ikuta | -ikuta | <-yikut- |
| 'abscess, boil' | i-pute | - | - | i-hute | < *-pute |
| 'headpad' | 7-kata | - | n-gata | П-kata | <-kata |
| 'chicken' | j-koko | 7-koko | n-koko | ๆ-koko | <-koko |
| 'shiver' | ku-tetema | ku-tetema | ku-teterna | - | <*-tetum- |

The picture in (128) suggests that, KIKonoongo and KrNyanyeembe had a different historical development from that of KIDakama, a variety grouped in KINyamweezi. The KIKonoongo and KINyanyeembe picture is actually very similar to that of SiSiloombo, although where they differ, the difference is significant too. For instance, the words for 'three' and 'abscess, boil', which are /i-satu/and/i-hute/ in SiSiloombo suggest that KiKonoongo might not have been in contact with SiSiloombo, since its refleses are /itatu, idato/ and /ipute/ respectively. In other words, the interpretation of the data from KIKonoongo and KINyanyeembe may be viewed in terms of an independent development.

[^67]The existence of two forms for 'three' in KiKonoongo also suggests that Dahl's Law and non-Dahl's Law phonetic realizations may be in free variation so that intra-informant variations might make such a phenomenon more noticeable if informant samples were larger. Internally, it might be a case of innovation by strengthening the once voiced stops, although the motivation may be difficult to establish. Otherwise, the weak presence of DL indicates that KIKonoongo and KINyanyeembe have borrowed massively from languages without Dahl's Law surrounding them like KIKiImbu, KiBende, ICIWuUggu and possibly SiSuumbwa

Such an ambivalent status in KIKonoongo and KINyanyeembe may also be explained in terms of sociolinguistic factors (Thomason and Kaufman 1988). These speech communities might have been KIKırmbu speakers in the past but were absorbed by F22 and adopted KINyamweezi. Although this is a plausible scenario, it needs some more evidence to validate it. For instance, Brock ( $1968: 58$ ) talks of the naming tradition of languages which is only a recent phenomenon. Modern Bantu languages became frozen and petritied when they began to be named, located and confined in prescribed spaces. For instance, the histories of KIKIImbu and KiniLaamba by Shorter (1968a), and Kidamala (1961) respectively say that the speakers came from different places. Some KiKiImbe speakers came from Usuumbwa (SiSuumbwa country) and Usagara in Morogoro. This is a great possibility since the movements in the past were much easier and more regular because they were not restricted by political boundaries or ethnicity. Such ethnic or political boundaries were not important
enough to restrict movements and mixing with speakers of different languages or dialects. What we try to capture now is only a fraction of what was happening only a short while ago with that volatile situation of free-mixing speech communities. The origins of the various Bantu clans, groups, and peoples are only recalled when they are recent enough to be fresh in the communities' collective memory from their most recent journeys, events and cheir great people. Such narratives are normally presented as if there were no great people or history before them.

### 3.2.2.2.3 Dahl's Law in SiGalagaanza

As (128) and Tahle 3.6 show, SiGalagaanza has more exceptions than regular Dahl's Law forms. Out of 42 words, only 12 or $29 \%$ undergo Dahi's Law. This number of exceptions is the same as in KiLoongo, which has $29 \%$ of its sample undergoing the process. Due to geographical proximity and probable linguistic closeness. KiLooggo was assumed to belong to SiSuumbwa in this study. a language which has no Dahl's Law. The reason for assigning KiLoongo to SiSuumbwa was partly because it was not yet classified.

The arguments for more exceptions here are similar to those advanced for KiKonoongo and KINyanyeembe, but the difference may be the numbers. SiGalagaanza behaves more like a language without Dahl's Law, as if those few words were acquired only through borrowing from mainly DL languages like KIDakama or KISukuma

On the other hand, if the $71 \%$ non-Dahl's Law words are interpreted as possibly acquired by contact, then it can be explained as the intensive model of contact-induced borrowing (Thomason and Kaufman (1988:50). In this kind of borrowing, intensive contact with bilingualism is expected among the speakers of the borrowing language or variety, extended over a long period of time. Here, there is heavy lexical borrowing and moderate to heavy structural borrowing as well. If the candidate for that donation is SiSuumbwa. KiBende or another language, an examination of that language is essential, although the structural part of borrowing is outside the scope of this work. In Chapter 4, there are some indications that SiGalagaanza shares a few significant vocabulary items with both SiSuumbwa and KiBende. And since they are all Bantu languages, a phonological process such as Dahl's Law could be applied to lexical loans. Dahl's Law used as a classification tool results in the dialects of KiSukuma and KINyamweezi grouped as in (129).


### 3.2.2.3 Dahl's Lav in SiSuumbwa

As the data in Tahle 3.6 show, Dahl's Law in SiSuumbwa is distributed as follows 10 words out of 58 in KiLoongo: SiSiloombo 4: and SiYoombe 5 words. The fewer number of words undergoing the process raises questions of how can such a skewed exception be explained in a language which had supposedly undergone Dahl's Law

On closer examination, the words undergoing Dahl's Law are limited to a set of loanwords which can be counted and accounted for. Most are from either KıSukuma or KıNyamweezi, while two are from Zone EJ. All DJ and EJ languages have at least a few items with DL, for example 'oil' is either/majuta/, /mazuta/ (EJ) or /mavuta/ (DJ). So, these few items in SiSuumbwa and KiLoongo are inherited from DJ/EJ. Since genetic affiliation is either present or absent, SiSuumbwa belongs within SSN or it does not.

Table 3.33 Dahl's Law in SiSuumbwa

| Word | Found in | Possible source | Explanatory notes and expected lexeme in brackets |
| :---: | :---: | :---: | :---: |
| -gufwa <*-kupa bone' | SiSifoombo <br> SiYoombe <br> KiLoongo | KISukuma, <br> KinNyarmweezi Zone EJ? | -guha (why not-kuha?) <br> -gul(w)a (Zone EJ, e.g. <br> RuKereße, Runyalhangiro) |
| -zuta <kuta 'oil' | KiLoongo | Zone EJ | -juta (kuta) |
| -syaabo, -saabo, -saaßo<*-capo 'calabash' | SiSiloombo SiYoombe | JinaKıya | the only variety which dissimilates non-initial stops. instead of being -saho |
| giiti < '-krti 'darkness' | SiYoombe | KıSukuma, <br> KıNyamweezi | gliti (kiti) |
| eer-kogoto < *-koko 'crust' | KiLoongo | ? | It is doubtful if this word is cognate with *-koko |
| guaki < *-kuuku 'grandfather' | SiSiloombo | KISukuma, KirNyamweezi | gruku (kusku) |
| guuku | SiYoombe, KiLoongo | KISukuma, <br> KirNyamweezi | gooko (kuuku) |
| engata ${ }^{70}<^{*}$-kata 'headpad' | KiLoongo | KiSukuma | Igata ( $\cap$ kata) |
| -bisa, -Bisa < "-pichide | SiSitoombo, SiYoombe | KiSukuma, <br> KINyarnweezi | -Bisa (-fisa/hisa) |
| ku-gesa < *-kec- 'reap' | KiLoongo | KımunaSukuma | kugesa (kukesa) |
| madete < -tete 'reed' | KiLoongo | KıSukuma, <br> KINyamweezi | madete (matete) |
| mußeho | Kiloongo | KiSukuma | - ßeho, mbeho (mpeho) |
| -gufu < -kupr 'short' | KiLoongo | KISukuma, KıNyamweezi | -guhr (-kuhi) |

[^68]Because the facts of SiSuumbwa suggest strongly that it has disproportionately few cases of Dahl's Law in the same words, it is also implied that it does not share any immediate ancestry with all the KıSukuma varieties and KiDakama. From this, Dahl's Law is essentially a process that affects all KISukuma dialects plus KIDakama. The evidence suggests it has

## SiSuumbwa KiLoongo SiGalagaanza KiNyamweezi KiSukuma

F23a F23b F23c F22d F22a F22e F22b F21a F21b F21c
diffused via loanwords into adjacent languages. Graphically, a family tree for these three languages would show branches which are not joined by a common stem, as in (130). In other words, such a tree has hanging branches without any roots

### 3.2.3 Other processes in SiSuumbwa, KrSukuma and KrNyamweezi

One prominent process distinguishing these languages is the appearance and evolution of voiceless nasals. In KISukuma ${ }^{71}$, and KrDakama this process entails a mechamism whereby some prenasalized voiceless stop consonants lose their place features. leaving only their voicelessness, resulting in voiceless nasals which spread to become homorganic with the lost

[^69]stop, as in Table $3.3+$ below from KımunaSukuma, JinaKirya, Ginantuzu and KiDakama examples, compared with KiNyanyeembe, KiKonooggo, and SiGalagaanza

As the table suggests, the voiceless nasals are found only in four varieties, KimunaSukuma, JinaKrrya, Ginantuzu and KiDakama. As a significant process for this group for diagnostic purposes, voiceless nasals reconfigure the group into the same three divisions, but with adjusted membership. Combined with other features, such a reconfiguration suggests linguistic validity

Table $3.3+$ Votcelexr navals and linguastic suh-grouping in SiStumbaca, KrSishuma anat KiNyomveezi

| Proto Bantura Variety ${ }^{[ }$ | *N-pamba 'provision' | - N-tuiga 'giraffe' | *mu-Ntu 'person' | *N-kanga 'guinea fowl' |
| :---: | :---: | :---: | :---: | :---: |
| SiSiloombo | mpaamba | ntwiiga | muuntu | ŋkaanga |
| SiYoombe | mpaamba | ntwiiga | muuntu | Økaanga |
| Kiloongo | mpaamba | entwiiga | muuntu | ejkaanga |
| KmmunaSukuma | maamba | nwnga | muuņ | †janga |
| Ginantuzu | m̧aamba | nıga | muuno | ウjaanga |
| JinaKırya | maamba | nıga | muuño | †aanga |
| KıDakama | m̧aamba | n@wiiga | muuñ | நjaanga |
| KINyanyeembe | mpaamba | ntwiiga | moonto | nkaanga |
| KrKonoongo | - | nwiiga | muanto | ๆkaanga |
| SiGalagaanza | mpaamba | ntwiga | muuntu | Пkaanga |

### 3.2.4. Homogeneity between SiSummbwa, KiSukuma and KiNyamweezi

With regard to the four phonological processes used to trace the divisions within SSN. only traditional KISukuma remains undisturbed, although a dialect is added to it, making it incomplete as well. This new KISukuma (or KISukuma2) is supported favourably by DL DL isolates KINyanyeembe, KIKonoongo and SiGalagaanza as the core KINyamweezi group, and BS isolates SiSuumbwa away from SSN. Such affiliations support the suggestion in (116) and (130), although the memberships of SiGalagaanza and KiLoongo are not clear. Each of the three reconfigurations has its own internal sub-divisions.

To refine the sub-divisions within SSN, the following test targets SiSuumbwa and KiLoongo to see if they can fit in within the surrounding linguistic groups in DJ, EJ or $\mathbf{F}$. This is illustrated in Tahle 3.35 .

Tahle 3.35 Comparison of Zone D D.I, and EJ Ianguager with KiLoongo, SiSintmhwa and JimaKina (Some data from Guthrie 1967-71, Nurse 1979, Schoenbrun 1997, mutatis mutandis)

| Feature or Process | $\begin{gathered} \text { F23a,F } \\ 23 b \\ \text { Suum } \end{gathered}$ | $\begin{aligned} & \text { F23c } \\ & \text { Loon } \end{aligned}$ | $\begin{aligned} & \text { Ej14 } \\ & \text { Cige } \end{aligned}$ | $\begin{aligned} & \text { O41 } \\ & \text { Koon } \end{aligned}$ | Du5t <br> Huwn | $\begin{aligned} & \text { D.61 } \\ & \text { Rwan } \end{aligned}$ | $\begin{gathered} D_{63} \\ F_{u / f} \end{gathered}$ | $\begin{gathered} \text { EJ25 } \\ \text { Jita } \end{gathered}$ | $\begin{aligned} & \text { F2le } \\ & \text { Suk } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| pa/e/o/i/o | h | h | h | h | h | h | h | 0 | $\rho$ |
| pi | h | h | h | h | h | f | h | $0 / 5$ | p |
| pu | $f$ | ? | f | ? | ? | $f$ | ? | s? | $p$ |
| mp | mp | mp | mp | mp | ? | mp | mb | mo? | mimn |
| ba/e/o/v/0 | $\mathrm{b}-\beta$ | b- $\beta$ | $\beta$ | $\beta$ | b | $\beta$ | D- $\beta$ | B | $\beta$ |
| bi | $\checkmark$ | $z$ | $z$ | ? | ? | $b$ | $?$ | b | B |
| bu | $\checkmark$ | $z$ | $z$ | B | f/pf | $\checkmark$ | v | $f$ | $\beta$ |


| Feature or Process | $\begin{gathered} \text { F23aF } \\ 23 b \\ \text { Suum } \end{gathered}$ | $\begin{aligned} & \text { F23c } \\ & \text { LOOO } \end{aligned}$ | Elt4 <br> Ciga | $\begin{aligned} & \text { D41 } \\ & \text { Koon } \end{aligned}$ | $\begin{aligned} & \text { DJ51 } \\ & \text { Huun } \end{aligned}$ | D. 661 <br> Rwan | $\begin{gathered} D \cup 63 \\ F_{U K} \end{gathered}$ | $\begin{gathered} \text { EJ25 } \\ \text { Jita } \end{gathered}$ | $\begin{gathered} F 21 c \\ \text { Suk } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| mbu | mv | nz | nz | mb | mf | mv | mv | f | mb |
| tale/a/t/o | $t$ | $t$ | t | t | $t$ | t | $t$ | $t$ | $t$ |
| ti | 5 | s | 5 | ? | ? | s | 7 | $s$ | $t$ |
| tu | Us | s/c | c | ? | ? | pf | $?$ | 5 | t |
| nt | nt | nt | nt | nd | nd | nt | nd | n | ninh |
| da/e/o/I/0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | Vd |
| di | $z$ | $z$ | $z$ | 1 | ts | $z$ | z | 5 | Vd ? |
| du | v/l | z/1 | j~z | r | pf | v | d) | f | $1 / 2$ ? |
| ca/e/o/vo | 5 | 5 | 5 | 5 | $s$ | $s$ | 1 | $s$ | 5 |
| ci | 5 | ? | 5 | ? | 1 | s/f] | 1 | 5 | 5 |
| cu | s | 57 | 1 | ? | ? | 5 | ? | s? | 5 |
| nc | ns | ns | ns | ns | If | ns | ns | ns | ns |
| ja/e/oilo | 2 | $z$ | $z$ | $z$ | c | z | z | 1 | $1 ?$ |
| nj | nz | nz | $\mathrm{n}]$ | $n z$ ? | nc? | nz |  | nj | $\Gamma^{7}$ |
| ka/e/o/v/o | k | k | k | k | k | $k$ | k | $k$ | k |
| kı | 5 | s? | \$ | c | ts | ts | c | s | k |
| ku | $f$ | $\dagger$ | 1 | k | pf | pf | $f$ | $f$ | k |
| 7 k | $\eta \mathrm{k}$ | nk | 7 k | nk | ? | nk/n | $n \mathrm{k} / 7$ | $\eta$ | $\dagger$ |
| $\mathrm{ga} / \mathrm{e} / \mathrm{d} / \mathrm{L} / \mathrm{g}$ | 9 | 9 | $g$ | $Y$ | 9 | 9 | $g$ | 9 | $g$ |
| g1 | 2 | g ? | $g$ | ? | $?$ | z | 7 | s | 9 |
| gu | $\checkmark$ | $z$ | 1 | $?$ | ? | $\checkmark$ | ? | $f$ | 9 |
| Vowels | 5LS | 5LS | 5LS | 7LS | 7LS | 5LS | 5LS | 5LS | 7 LS |
| Dahil's Law | - | - | - | - | - | + | + | + | + |
| BS | * | + | + | - | ? | + | ? | + | - |

F23a,b $=$ SiSuumbwa, $F 23 c=$ KiLoongo, EJ14 $=$ RuCiga, D41 $=$ RuKoonzo, DJ51 $=$ KiHuunde. DJ61 KinyaRwanda, DJ63 = KiFuliru, EJ25 = eCiJita, F21 KISuKuma (JinaKirya (F21c)), 5LS/7LS $=$ five or seven vowels, of both long and short quality, ? = insufficient datainformation.

In Table 3.35 above, the double reflexes in JinaKriya (F2Ic) suggest mixture of phonological systems due to contact as reciprocal borrowing with interacting speakers of different languages. For instance, this explains the presence of traces of Dahi's Law or Bantu Spirantization in languages like KiKıimbo which did not undergo such processes. But since their neighbours did, they borrowed some words, and one finds words like/idooke/ 'banana' <KiDakama/idooke/ < PB *-tooke. The same can be said of Dahl's Law in SiSuumbwa and Bantu Spirantization in JinaKrrya. Glottalization is not native in KimunaSukuma for words like /-hya/ 'new', /-hyaagola/ 'sweep'. They appear as /-pya/ and /-pyaagola/ respectively in JinaKirya, KIDakama, KINyanyeembe, KIKonoongo and SiGalagaanza. strongly suggesting that they are loans in KımunaSukuma and in F21/F22 generally rather than frozen processes. Similar phonological processes which appear to have operated in the past and then stopped can be explained this way, just as Batibo (2000:25) observes. For SiSuumbwa (F23a, F23b), borrowing from Zone DJ60 (Western Highlands) or EJ10/20 (Rutara) languages is not plausible enough, since the evidence is overwhelming. The most probable explanation is genetic affiliation, especially with DJ60. Although DJ60 has DL. within it, some like one variety of GiHa (DJ66) do not show it (Muzale 1998). Internally, therefore, SiSuumbwa may not necessarily be immediately affiliated with DJ60 (like KinyaRwanda or KiRundi). It may be closely related to another unknown DJ language, since not all DJ languages are well known. With the available data. SiSuumbwa fits well with DJ60.

On the other hand, KiLoongo shows a stronger phonological affinity with the Rutara group than with SiSuumbwa. This is illustrated well with KiLoongo words like/enzozu/ 'elephant', /izu/ 'ashes' from *-jogu and *-bu respectively, which are /njovu/ and/ivu/ in SiSuumbwa Respectively, these are/enjojo/ and/eizu/in RuCiga, indicating genetic relationship which is not contradicted by other data. Non-native reflexes in KiLoongo can be easily traced and explained.

After examining the examples and patterns above, two conclusions can be drawn. First, the inherited Proto Bantu words in KıSukuma and KINyamweezi show regular reflexes in many cases. Although sometimes native reflexes are completely missing, the general pattern discounts $7>5$ and BS. Only loan words show BS in both KISukuma and KiNyamweezi Secondly, within SSN , the chronology of glottalization, $7>5 / \mathrm{BS}, \mathrm{DL}$ and voiceless nasalization support the idea of historically, and therefore genetically, different routes taken by the SiSuumbwa, KINyamweezi and KıSukuma dialects as their speech communities evolved differently, though sometimes concurrently. The two conclusions above suggest that any large sample of informants or words from SSN would support this hypothesis. In this study, for instance, the three informants for SiSiloombo and SiYoombe on the one hand, and KiLoongo, on the other, were less than 30 years old, although older than 20. Much oider informants would show less interference from other languages to support consistently Kahigi's (1988:267-8) diachronic prehistory of SiSuumbwa:

```
PB * \(p, t, k>f_{-} u ; \quad P B^{*} b>v / \_i\)
\(P B^{*} g, d, g>v / \_u, \quad P B^{*} p>f / \_i\)
```


### 3.2.5 Relative Chronology in SiSumbwa, KrSukuma and KiNyamwezi

Chronology of phonological processes in SSN suggests that these languages might have started as separate entities and then converged in adjacent areas at some point. In the convergence, some features from each were diffused to the others depending on their geographical location and direction of physical and social movement of the speakers

| Time | $\rightarrow$ - |  |  |  |  | 2000 AD $\rightarrow$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Process | DL | LENIT | GLOTT | BS | $7>5$ | N [-voice] |
| Group 1 | $\begin{aligned} & \text { F21, } \\ & \text { F22b } \end{aligned}$ | F21. F22 | - | - | - | $\begin{aligned} & \mathrm{F} 21, \\ & \mathrm{~F} 22 \mathrm{~b} \end{aligned}$ |
| Group 2 | ? | $\begin{aligned} & \text { F22a, } \\ & \text { F22d, } \\ & \text { F22e } \end{aligned}$ |  | - | - | - |
| Group 3 | - | - | EJ20. F23 | $\begin{aligned} & \text { EJ20, } \\ & \text { F23 } \end{aligned}$ | $\begin{aligned} & \text { EJ20. } \\ & \text { F23 } \end{aligned}$ | - |
| Some examples | *-tato >-dato <br> *-kec- > - gesa <br> *-piti $>$-biti | $\begin{aligned} & * c i>s / \int \\ & * b>\beta \end{aligned}$ | ${ }^{*} p>h$ | *gu>vu <br> *piti >-fisi | -satu | $\begin{aligned} & \text { "mp>m} \\ & * n t>n \\ & * \eta k>\dot{n} \end{aligned}$ |

$[D L=$ Dahl's Law; LENIT $=$ Lenition; GLOTT $=$ Glottalization; $B S=$ Eantu Spirantization: $7>5=$ Vowel reduction from 7 to $5 ; N[$-voice $]=$ Voiceless nasal formation]. The sequence of processes is DL-LENIT/GLOTT-BS/7 > 5-N[-voice]

Figure 3.1 Relative chronology of phonological processes in SSN

The evidence for this chronology can be observed by looking into some features in each individual language, since the languages appear to have developed differently In SiSuumbwa. for example, PB *pi does not change into the expected spirant like/t/ because of the chronology of the events. Glottalization occurred first in most of the PB *pi words and /h/ blocked the effect of BS in them. This blocking process of /h/ can be possible only if glottalization first appeared in the *pi environment, and while it was in progress in the rest of the superclose vowel environments. BS began. This explains the total absence of BS in that environment, except in later borrowings ${ }^{72}$. In non- ${ }^{*}$ pi contexts, BS is present. Why BS did not start in PB *pi but elsewhere like in PB *ti, *tu, ${ }^{*} \mathrm{ki}$, ${ }^{* k u}$ is partly a phonetic question. In the articulation of PB *pi, the front part of the tongue is lowest in the buccal cavity, touching the lower teeth, making the PB *i in *pi less [+consonantal] because it is farthest from the hard palate. The tongue height is highest elsewhere, almost touching the hard palate, causing frication. In addition, glottalization does not occur in other environments. In SiSuumbwa, glottalization is a regular phonological change which is parallel to PB *c and *b in KISukuma or KINyamweezi. In KISukuma and KiNyamweezi palatalization was probably triggered by contact with BS languages. since some words in an identical environment do not palatalize.

On the other hand, Dahl's Law in KıSukuma predated all other changes in the language. This

[^70]can be tested by words like PB *-paca 'twin', *-pIt- 'pass', *-pic- hide' as shown in (132), which is compared to SiSuumbwa. Any deviation from DL as a first rule to apply in a word in F21/F22b is likely to be an external influence.
(132) PB *-panto, *-paca 'twin', *-pIt- 'pass', ${ }^{*}$-pic- 'hide', *-piga 'hearthstone, ${ }^{*}$-pikarrive

| $\mathrm{PB} \rightarrow$ Process. |  | *-panto place | - -paca <br> 'win' | $\begin{aligned} & \text {--ptt- } \\ & \text { pass } \end{aligned}$ | $\begin{aligned} & \text {--pic- } \\ & \text { "hide } \end{aligned}$ | *-piga nearth stone' | *-pikarrive |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | F21 | - | -basa | -bita | -bica | -? | -? |
| DAHL'S | F22 | - | - | - | - | - | - |
| LAW | F23 | - | - | - | - | - | - |
| 2. | F21 | hanu ${ }^{73}$ | - -asa | - $\beta$ rta | --阝isa | -higa? ${ }^{74}$ | -? |
| LENITION <br> ${ }^{*} c>s, \quad b>\beta$, | F22 | panto | . | -Brta? | --bisa? | - | - |
| *p>n | F23 | hantu | -hasa | -hita | - $\beta$ isa? | -higa | -hika |
| $\begin{aligned} & 3 \\ & \text { PALATAL } \end{aligned}$ | F21 | - | - | - | - | $\begin{aligned} & \text {-figa? }{ }^{75} \\ & \text {-siga? } \end{aligned}$ | $\begin{aligned} & - \text { - lik/ga? } \\ & - \text { sika } \end{aligned}$ |
|  | F22 | - | - | - | - | -figa? | -f/sika |
|  | F23 | $\bullet$ | - | - | - | - | - |

For exarmple, when Dahl's Law fails to operate in KiSukuma and palatalization takes precedence, it indicates a borrowed word or a change triggered by contact. The voiced

[^71]counterpart of $/ \mathrm{p} /$ is $/ \mathrm{b} /$ not $/ \beta /$ as is the case with $\mathrm{PB}{ }^{*}$-paca $>-\beta$ asa. A stage. DL. is skipped when lenition is posited as the first process to have occurred. According to the evidence, DL was the first, followed by the lenition of PB *c and * ${ }^{*}$ : ${ }^{*}$-paca > -/basa/ (DL) $>/-\beta$ asa/ (Lenition). In SiSuumbwa, that lenition was glottalization

It is clear from the above examples that palatalization in KISukuma and KINyamweezi is a later development which was not complete because it was not native. It came after DL. Forms like PB *-pic- 'hide', *-piti hyena' being/- $\beta$ isa/ and/- $\beta$ iti/ suggest the normal lenition route, especially in KISukuma, by the DL > LENITION > PAL path. rather than PB *-pik$>/ /$ - $i k a /$ or $/$-sika/ which $\operatorname{skips}$ DL completely without any justification ${ }^{7 /}$. The lenition of PB *b to $/ \beta /$ in KISukuma, for example, is regular, expected when there is phonemic contrast between $/ \mathrm{b} /$ and $/ \beta /$. If /-jika/, /-sika/ or /-fika/ are not marked in KiSukuma and KINyamweezi, then PB *-piti and similar words would have a fricative which would effectively block DL in KimunaSukuma, Ginantuzu and KıDakama, except in JinaKirya. With palatalization taking precedence over DL, PB *-pic- hide", "-piti hyena' for example, would be / /isa/, /-sisa/ or /-fisa/ 'hide' and //jiti/, /-siti/ or/-fiti/ respectively, which they are not. This anomaly of fricatives in both KISukuma and KINyarnweezi indicates that each language developed separately, with separate rules in operation. In fact, the SSN languages hardly share any of those important processes. Each behaves individually and differently as summarized in (133) While F21/F22b has regular lenition of PB * $c$ and *b across the board, KINyamweezi shares only that aspect with F21/F22b. The rest of SSN are different, for

[^72]instance in DL and voiceless nasal formation, which are in F21/F22b but not in F22a, F22d, and F22e. SiSuumbwa has glottalization and BS with $7>5$, while both F2I and F22 have none of these

|  | Process | F21/F22b | F22a/F22d/F22e | F23a,b,c |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Dahl's Law | Yes | Traces? | Traces? |
| 2 | $\begin{aligned} & \text { Regular reflex } \\ & \text { e.g. lenition "b }>\beta .{ }^{*} c>s \text {, } \\ & { }^{*} p>h \end{aligned}$ | ${ }^{*} \mathrm{~b}>\beta$, ${ }^{*} \mathrm{c}>\mathrm{s}$ | ${ }^{\circ} \mathrm{b}>\mathrm{B}^{*} \mathrm{c}>\mathrm{s}$ | $\begin{aligned} & * p>h . * b=B . \\ & \text { "c>s. } \end{aligned}$ |
| 3 | Voiceless nasal formation $\mathrm{N} \rightarrow \mathrm{N} / \mathrm{C}_{(M)}$ | Yes | No | No |
| 4 | BS and 7>5 | No | No | Yes |

Chronologically, BS in SiSuumbwa is not a process which is as old as glottalization, since. PB ${ }^{*}$ pi does not produce a spirant. This only points to earlier glottalization which blocked BS in that environment. This suggests BS either diffused from elsewhere as well or it started in F23 only later. If it was acquired through borrowed words, then it affected the whole phonological system because it was adapted. This is illustrated in Tab/e 3.36 where only loanwords in SiSuumbwa seem to show BS, although with far-reaching consequences, leading to $7>5$. If SiSuumbwa is assumed to have split from DJ, then the source might have been EJ20 or DJ60. Such sources suggest that when SiSuumbwa diverged, DJ60 and EJ20 were one language and had undergone glottalization first, followed by BS later.

Tahle 3.36 Status of (Blotalization and BS in SiSunmbwa, KLiakuma and KiNyamweezi

| Language Proto Bantu . | F23 | F21a | F21b | F21c | F22b | F22a. F22d. F22e* |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| *-pod- coal' | -hola | -pola | -pola | -pola, <br> -hola | -pola | -pola |
| *-prni handle, haft' | -hini | -prni | -pini | -prni | -pini | -prni |
| *-pernbe 'horn, ivory' | - heembe | -peernbe | - peembe | -peembe | - peembe | -peembe |
| *-pr- 'ripen' | -hya | -hya | -pya | -pya | -pya | -pya |
| *-pic- 'hide' | -bisa | - Bisa | -Bisa | - Bisa | - -isa | - Bisa |
| *-pute 'abscess' | -hute | - $\beta$ ute | -Bute | - $\beta$ ute | - | -pute |
| "-paca twins' | -hasa | - Basa | -ßasa | -Basa | -Basa | - pasa |
| *-piga 'hearthstone' | -higa | -higa | -siga | -jiga | -figa | -figa |
| -tap- draw water' | -taha | -daha | -daha | -daha | -dana | - daha |
| *-pigo 'kidney' | -figo | -prgo <br> (m) | -prgo <br> (m) | -prgo $(\mathrm{m})$ | -figo | -figo |

Since F23 can be viewed as part of EJ20/DJ60 historically, it was easy to borrow words. adopt them easily, and then adapt them as well after the split. For the words inherited directly from Proto Bantu like 'arrive' -hika $\mathrm{PB}<{ }^{*}$-pik-, glottalization takes precedence because it had already occurred when BS set in with loan words like -koofi \& *-kopi' 'flat of hand', fisi <*-piti 'hyena', -figo < *-pigo 'kidney'. These, though they are Proto Bantu. appear to have been borrowed from elsewhere, since the native words appear to be affected by glottalization, which blocks BS in PB *pi because the trigger *pi is removed by becoming/hi/ (See Batibo 2000 on this bleeding effect between BS and glottalization).

### 3.2.6. Conclusion. SSN phonological change and grouping

SiSuumbwa. KISukuma and KINyamwezi stand alone individually within a relationship which cannot be described satisfactorily as genetic. Their differences are linguistically significant, making their current similarity only areal at best. Reconstructing proto-forms from the three languages as if they belonged to the same immediate ancestor is also not feasible, since they diverge diachronically. Reconstruction and grouping should ideally stant with the smallest levels in each sub-grouping, and proceed to the top nodes of genetic affiliation. Within the scope of this work, this is not possible due to the new discovery that SiSuumbwa on the one hand and KINyamwezi and KISukuma on the other, are not as close as originally thought, summarized by the phonological processes noted in (134).

Of the four tests used (BS, 7>5, DL, and voiceless nasals), all are absent in KiNyamweezi (F22a, F22d, F22e) as native features. Any traces suggest borrowing. KISukuma is characterized by DL and voiceless nasals which are absent in the other two, SiSuumbwa has BS and $7>5$, and the others have not


### 3.3. CONCLUSIONS

From the discussions in this chapter, it appears that what most of the Zone F varieties share is geographical proximity rather than phonological innovation. In the whole of Zone F, BS and $7>5$ is found in F10 and F23 only, while the situation in F25 is mixed, just as it is in F21 and F22. F34 is alone in being 5 V without BS, although the number of vowels varies with researchers. The evidence in this study supports 5 V without question. DL is confined to F21/F22b only, while in the rest, any traces are from loan words. And finally, voiceless nasals within Zone F are confined to the DL languages: F21/F22b. The rest of the languages show some individual innovations which do not help in unifying the zone.

Although SiSuumbwa is no longer a member of Zone $F$, the phonological evidence suggests that. one dialect. KiLoongo ( F 23 c ), originally belonged to EJIO/EJ20 and the rest of F23 derived probably from DJ60. Both SiSuumbwa (F23a/F23b) and KiLoongo (F23c) share BS and $7>5$ with DJ and EJ languages.

KISukuma/KIDakama (F21/F22b) and the rest of KINyamweezi (KINyanyeembe (F22a). SiGalagaanza (F22d) and KiKonoongo (F22e) share little, apart from their phonological conservatism and geographical adjacency.

F10 and F25 are outside our focus, and without considering other languages outside this study, we cannot say anything about their evolution; only general comments were made

F33 and F34 (KeeMbuwe and KiiRangi) have some commonalities such as PB *g loss, and * $\rightarrow r$ before front vowels.

F24 (KIKIImbu) and F31 (KInILaamba) share one of the most conservative phonological systems in Zone F and beyond, but there are no sets of shared imovation to support their common history. On the other hand, while F32 (KIRImi) is equally conservative, some of the striking features are $\mathrm{PB}{ }^{*} \mathrm{t}>\mathrm{R}$ and ${ }^{*} \mathrm{p}>\boldsymbol{\phi}$. They do not share much with F24 or F3I. indicating that any similarity may be areal rather than genetic.

For classification therefore, the innovations like Bantu Spirantization with the 7 V versus 5 V sequel and Dahl's Law as major criteria for subgrouping only succeed in isolating the various Zone F languages into smaller independently evolved languages rather than one unit with a common intermediate node in a genetic tree. This phonological picture suggests that the classification of these languages into geographical zones was mainly iconic: assuming genetic relationship because of adjacency. This justifies this study as a contribution towards filling out the gaps identified in Chapter 2. The inclusion of as many dialects as possible has demonstrated that BS, $7>5$, DL. glottalization and voiceless nasal formation are significant criteria which are able to isolate languages or dialects which followed a common historical path from those which did not, despite their current geographical adjacency or similarity due to that adjacency.

The bottom line from the phonological picture is that there is no linguistic Zone $\mathbf{F}$ if other diagnostic tests outside phonology are not considered. Vocabulary and morpho-syntactic evidence might shed a different light by reviving Zone Finto a linguistic unit. On a more optimistic note, the phonological features surveyed do not tell us much about classification because they are shared by other groups as well. To find more evidence for Zone $F$, the analysis of lexical development is the subject of Chapter 4. Otherwise, by the phonology hypothesis alone within the zone, linguistic Zone F or SSN can no longer be maintained

## CHAPTER FOUR LEXICAL DEVELOPMENT

### 4.0 INTRODUCTION

This chapter explores the development of vocabulary in Zone F It is divided into three sections. The first part is a lexicostatistical survey as a quantitative analysis for relatedness, white the second establishes the genetic relationship between the varieties using qualitative evidence as diagnostic criteria. The last part summarizes the findings of lexical relatedness in Zone F

Quantitative evidence refers to shared, and hence inherited vocabulary from a common proto language. Although we may assume various protos/nodes in the development of Zone $F$ languages, at this point we are concerned with lexical items inherited from PB. When there are shared lexical items between two or more language varieties, the tirst assumption is that they are from the same ancestor language. Unless they are loans, chance similarities, universal symbolisms or a result of diffusion because of contiguous locations, shared lexis anong sister languages is expected. In terms of weight, it is traditionally held that inherited words do not help much diagnostically since it is a given fact that all languages descending from the same ancestor have the same basic features of the parent, unless something drastic happened to change that. Diminished diagnostic utility of retention, however, may only be a matter of degree, since, as is shown below, retention can help much in grouping languages genetically. On the other hand, qualitative evidence as a stronger diagnostic measure of genetic
relationship refers to shared innovation which is a creative departure from the original by any or all of the following three major processes: borrowing; changing the phonological and/or semantic value of inherited words; and unique creations. In this study, purely phonological innovation is excluded because it refers essentially to inherited vocabulary which is only modified. In addition, it is not lexical innovation. The reliability of qualitative evidence, like that of retention, depends on careful analysis: without care, it is difficult to know if similarity between languages is due to genetic ancestry or contact (for a fuller treatment of genetic vs contact similarity, see Hinnebusch, 1976, 1999).

### 4.1 QUANTITATIVE EVIDENCE: SHARED VOCABULARY AND COMMON ANCESTRY

With the exception of a few languages like KeeMbuwe, KiBende, KiLooggo and IcIWuoggu, in many of the Zone F members, shared vocabulary has been dealt with quite adequately using lexicostatistics by Nurse (1979), Nurse and Philippson (1982) and to a limited extent Kahindi (1988) who compared only SiSuumbwa. KISukuma, KINyamweezi and iGiHa. Although lexicostatistics as a method is controversial, it is used here as a contribution to the clarification of that controversy, as presented in the overview of the method in I.3.5.2 above. Any good method, in linguistics or any field, tends to yield reliable and consistent results which are not significantly different from previous classificatory findings based on other, more popular methods. The following are the results of the application of lexicostatistics to Zone F. They are based on the comparison of a pair of
languages in a horizontal relationship, that is, how two language varieties compare synchronically.

### 4.1.1 Method used

The method is that explained by Swadesh (1950:157), Lees (1953:115). Fairbanks (1955). Swadesh (1955:122), McElhanon (1970:216) and Embleton (1986), among others. In this method, cognation is treated as an 'either/or' possibility. Words are either descended from one common source or not, rather than a series of phonologically graded departures from the proto-forms. This approach slightly departs from the graded treatment of retention used by Nurse and Philippson (1980). Although their method is complicated, it does not significantly alter the overall configuration of relationships between languages derived by simpler ones (Nurse and Philippson, ibid27). The 'either/or' method therefore involved the following steps:
(i) 28 language varieties were selected. These included all Zone F varieties and some controls from Zone DJ, EJ, G and M, as follows: SiSuumbwa F23: (SiSiloombo (Si), SiYoombe (Yo), KiLoongo (Lo)); KıSukuma F21: (KımunaSukuma(Su), GinaNtuzu (Nt) JinaKrrya (Ki)); KıNyamweezi F22: (KıDakama (Da), KINyanyeembe (Ny), KIKonoongo (Ko), SiGalayaanza (Ga)): KiBende/KiTongwe F10: (Be); KIniLaamba F31: (KInaUshoola (Us), KiniLaamba Central (La), KınIHaanzu (Ha)), KiRimi F32: (GiAhi (Ah), GiRwana (Rw), үInyaMunyinanyi (Mu)); KıKirmbu F24: (KIKirmbu North (Kn), KiKirmbu South (Ks)); rerWuUngu F25: (Wu); KiiRangi F33: (Ra); KeeMbuwe F34: (Mb); oRuHaya

EJ22: (Zone EJ) (RuHyoza (Hy)): iGiHa DJ66: (Zone DJ) (Hh): CiGogo GII (CiNyambwa
(Go)); eKiHehe G62: (He); IKINyakyusa M31: (Ky), and KiSwahili G42d (KiSanifu (Sw), from KiUnguja).
(ii) A 100-word list modified by Nurse (1979) from that by Swadesh (1950, 1955) was used, as shown in (135), in alphabetical order, with assumed Proto Bantu etyma It has been generally found that the shortest 100 -word list used to-date is reliable and useful to a large extent (Hymes 1960:12).
abdomen, stomach, belly *-da; all *-(n)ce, *-yona, arm, hand *-kono, *-boko, ashes ${ }^{*}$-bu; back (n)**-gongo; bad *-br; bark *-koba; bird, ${ }^{*}$-nyoni, ${ }^{*}$-dege; bite ${ }^{*}$-dom-; blood ${ }^{*}$-gadi, *-(n)yinga; bone *-kupa; breast *-beede; child, infant *-yana; cloud ${ }^{*}$-dunde, cold ${ }^{*}$-pepo, come ${ }^{*}$-yij-; $\operatorname{cook}(\mathrm{vt})^{*}$-dug-. ${ }^{*}$-teek-; dark, black ${ }^{*}$-yidu; daytime ${ }^{*}$-cr, ${ }^{*}$-juba; die ${ }^{*}$-ki-, ${ }^{*}$-ku-; dog ${ }^{*}$-bua; drink (vt)*-nu-; ear ${ }^{*}$-tui, *-kutu, eat ${ }^{*}$-dI-; egg ${ }^{*}$-gi; eye ${ }^{*}$-yico; feather *-yoya, fingernail *-jada, fire *-yoto, *-dIdo, fish *-comba, *-cuI, *-cI fly (vi) *-pap-, *-guduk-, give ${ }^{*}$-pa, *-yink, go *-gi-, *-yend-; good *-yija, great, big. large, powerful *-kodu; hair ${ }^{*}$-yuldr, *-yuede; he, she *-kue, ${ }^{*}$-ye(e); head *-tue, hear ${ }^{*}$-yigu-*-teg- *-pud-: heart *-kodo, ${ }^{*}$-tima, ${ }^{*}$-yoyo; horn, ivory ${ }^{*}$-pembe; I $^{*}$-ne, kill ${ }^{*}$-yit- ${ }^{*}$ -bud(ag)-; knee ${ }^{*}$-du(i); know *-man(i)-: leaf ${ }^{*}$-yani; leg, foot ${ }^{*}$-gudu: liver ${ }^{*}$-tIma: long/tali *-deepu, *-tadI, *-de; louse ${ }^{*}$-da; male, man, husband *-koci; *-dume: many *yijgr, meat *-(n)yama, milk*-beede; moon *-yedi, mountain *-gudu. *-dundu; mouth *-domo, ${ }^{*}$-nua, name *-yina; neck *-ki(i) go, *-koti, new *-pra; night *-tiku: nose *puda, ${ }^{*}$-judu, ${ }^{*}$-yIdo; oil, fat ${ }^{*}$-kuta; old ${ }^{*}$-kUdu; one ${ }^{*}$-mo; path, way ${ }^{*}$-jIda, person ${ }^{*}$ ntu; rain ( $\mathbf{n}$ ) *-buda; root *-di; sand *-canga; say *-buId-; see *-bon-. seed ${ }^{*}$-bcyu. *beto, short *-kupI, sing *-yImb-; sit *-yikad-; skin *-koba, *-kanda, *-didr?; sleep (vi)*-daad-, ${ }^{*}$-gon-; small *-niini, ${ }^{*}$-ke, smoke *-yoki; soil ${ }^{*}$-dongo; stand *-yim(Idrd)-; star *-tondua, ${ }^{*}$-yo(n)ti; stone *-bre, sun ${ }^{*}$-juba; tail *-kIda; that ${ }^{*}$-da/e, ${ }^{*}$-dra, VCVo. they ${ }^{*}$-bo; tongue ${ }^{*}$-dimi; tooth *-yino; tree *-tI, *-pIkr; two *-brdr, water *-jI; we *-cue, *-yitue: what *-kI, white *-yedv; who *-nani; woman, female *-ke, *-kadi; you (sg) (thou) *-be; you (pl) (ye) *-mue, *-nue
(iii) Where there were two or more words in the English gloss, they were retained if they all referred to a polysemous word in Proto Bantu or its daughter languages. Gudschinsky (1956:179) suggests using only one word as an equivalent where two words compete equally. by choosing one randomly, preferably by sossing a coin. This advice was not followed in both the English gloss and Proto Bantu forms in some of the words
(iv) The selection of Proto Bantu forms was not always straightfonward. Two, sometimes three, and even more reconstructions were available for one word in Proto Bantu, as in all *-(n)ce, *-yona: 'arm, hand' *-kono, *-boko; blood *-gadi, (n)yinga; 'cook (vt)' *-dug-, *-teek-, 'die' *-ki-, *-ku-, fire' *-yoto, ${ }^{*}$-dIdo, and seed' ${ }^{*}$-beyu, ${ }^{*}$-buto,

To accommodate such a situation, the following approach was adopted: the comparisons were done using all protoforms, each language according to the words it had in its lexical inventory. It was this list which was adopted as representative of simultaneous Iexicostatistical (cognation) computation and similarity subgrouping. It will be noted here that, while the method adhered to strict cognation, it also simultaneously measured similarity, just as Fairbanks (1955:120) notes that a consistent relationship between cognation and similarity counts is normally displayed. Using this method yields consistently higher figures of inherited words across the board, compared to relatively lower figures if a strictly monogenetic approach was adopted. For instance, if the lexemes \{-kolo\} and \{-tima\} were both listed in English as 'heart', in Proto Bantu they are two words. Languages sharing
either word had a cognate score, while those not sharing it got a zero

### 4.1.2 Lexicostatistics of language pairs

This is the standard procedure, and each of the 28 language varieties was compared to the rest to determine shared vocabulary between each pair. The following procedure was adopted:
(i) Each language variety was compared lexeme by lexeme with each of the other 27 varieties in turn to measure cognation against Proto Bantu. as sample (136) shows. Only the 'zeroes' were entered, and any blank space indicated cognation. Any other system representing cognation/non-cognation would have been adopted, since this was chosen for convenience only. In (136), $\mathrm{S} / \mathrm{N}$ is the serial number of each word in the list compiled by Nurse and Philippson. The two-letter codes are iconic representations of the language varieties used for convenience. The first two letters of each language variety are from the root of each name in the Roman alphabet, which excludes any phonetic symbol that would take more space These symbols are also indicated in the list of abbreviations.

| Lamgnage variety <br> PB and (iloss $\downarrow$ | $S N$ | $S i$ <br> $Y o$ | $S i$ <br> $L o$ | $S i$ <br> $S i$ | $S i$ <br> $N i$ | $S i$ <br> $K i$ | $S i$ <br> $D a$ | $S i$ <br> $N y$ |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| abdomen, stomach *-da | 133 |  |  |  |  |  |  |  |
| all *-(n)ce.* -yona | 926 |  | 0 | 0 | 0 | 0 | 0 | 0 |
| arm, hand *-kono, *-boko | 55 |  | 0 | 0 | 0 | 0 | 0 |  |

Languages from other zones were included as a control to determine if the method can really differentiate between languages assumed to beiong to other zones. They were selected because some are also adjacent to one or more of the Zone $\mathbf{F}$ languages. although IKINyakyusa M3I (Ky) is not adjacent to any Zone F language, only nearer to rcrWouggo F25: (Wu).
(ii) The scale was binary, I for cognation, and 0 for non-cognation. Cognation was defined as any regularity of morpheme realization in any lexeme believed to be derived from a common proto language and which is manifested in descendant languages and their dialects as regular, but not necessarily, by identical shapes, as illustrated in (137) (The full list is shown in Appendix 11). In this case, a word was either cognate or it was not. Thus, ma- $\beta \mathrm{u}$. ma-wu, and mà-vu are cognate to Proto Bantu *-bu. 'ash', awarded I, while mà-tüünde and mà-fuuundú both 'ash' are not, and therefore are coded 0

| SN | Gloss | Da | Ny | Ko | Ga | Be |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 337 | ashes | ißu/máßú | matüunde | mawu | ivü/mȧvú | ifüundü/máfüundú |

(iii) Doubtful cases were ignored and awarded a 0 , while probable ones were given a full I, so that any bias in awarding 1 or 0 cancelled each other between the two scenarios. For instance, in SiSiloombo and SiYoombe, (ilunde) 'cloud was not recognized as cognate to Proto Bantu *-dunde 'cloud', although it was so recognized in KimunaSukuma as :ilunde; because, SiSiloombo and SiYoombe do not allow *d/_u>1 due to Bantu Spirantization obtaining in them. So, \{ilunde; was judged as a loan, probably from KimunaSukuma, since the form from an inherited lexeme would have been \{ivunde\}. Likewise. KIKIImbu North \{liihu; 'long' was judyed to be a loan, probably from KiKonoongo or KiNyanyeembe , liihu:, from Proto Bantu *-deepu 'long', since the regular correspondence of *p in KIKIImbu is/p/ without exception.

On the other hand, KeeMbuwe \{mbuuye\} 'stone' or KiiRangi, KinyaRwanda. KiHangaaza, and KiVinza $\mid i \beta$ uye| were treated as cognates of Proto Bantu *-bue stone where the inserted /y/ was regarded as an articulatory strategy only, similar to other reproductions like \{mabwe ; in KIKirmbu and iKiFuliiru, \{mawe\} in KiSwahili or KISukuma.

Another consideration involved words which in Proto Bantu were given many forms. as reconstructed by Guthrie (1967-1971). These different but cognate forms were not sifted and
solidified by Guthrie to obtain only one or two reconstructions. One extreme case is that for 'all'. It has thirteen morphemes, although on closer examination, they can be reduced to only two, *-ce and *-ona. The rest are reflexes in the different languages. These morphemes for 'all' are *-ce, *-co, *-yence, *-yoce, ${ }^{*}$-yonce, ${ }^{*}$-yonco, ${ }^{*}$-yonca, ${ }^{*}$-yocI, ${ }^{*}$-yoci, ${ }^{*}$-yote, ${ }^{*}$ yoti, *- yonti, and *-yona. Likewise, \{iwe\}(KiSwahili, \{ißuye\} (iGiHa), ibwe! (IKINyakyusa), \{livue|(KiWanji), \{libuhi| (KiPogolo) and \{igwe\}(KinILaamba) stone are all cognate forms of *-bue stone'.
(iv) After the 100-word list for each pair was compared, the Os were counted, representing the percentage of non-cognation, which was proto form loss through replacement by borrowing or other forms of innovation. The remaining count was shared cognation. Since it was a 100 -word list, the figures so obtained were the final percentages, needing no conversion. Conversely therefore, the 0s couid also be represented as the only marked forms. and their count out of the 100 total would constitute the rate or extent of innovation or loss in each language variety.

### 4.1.2.1 Lexicostaistical subgrouping: procedure and results

The results shown in Tables +1 to +12 represent the relationship between the Zone F language varieties to each other. In addition, the languages external to Zone F are also compared. On the other hand. Tahles $+.1310+.15$ illustrate the difficulty of inclusion and exclusion in grouping, based on statistics. Some languages like CiGogo which are outside

Zone F show more affinity than languages supposed to be members of Zone F Based on the percentages, the following master table was made, as shown in 7uhle +. I.

Table +.1. Lexicostatistical relationships between Zone Fand some adjacent latguages

```
Bc
52 Lo
6457 Su
625787 Nt
66599090 Ki
6458868487 Da
705778768081 Ny
726079778181 84 Ga
6858818084848484 Ko
6356777880787979 84 Kn
62557675777674757882 Ks
6764687071707278736768 Si
676670727372748275716884 Yo
55507575767569707475746665 Us
5651747476746970757573678683 La
565278798277737377767269697977 Ha
58587571767571727474716868717074 Ah
57567673767670717474726671737176 80 RW
5553716972726668667067636469687179 77 Mu
56537066717170677372706061666766716969 Mb
514265616465616166676453555958606262 61 64 Ra
615364646466696970717053646264646462 60 63 56 Wu
50 57 55 55 57 56 53 60 56 52 52 57 58 50 51 52 53 54 51 49 42 48 Hy
5954585961 5661656157 566464545254 5965 55 54 57 58 52 Hh
5447595861636466646464576657596061 5960 63 60 63 49 54 Go
434044434647515248495246464345454845454743 49 42 41 57 He
524655545755 57 58 68 58 59 52 53 53 54 54 55 54 52 56 45 57 48 56 60 49 Ky
534962616565636769656155 576062626566 64 6561 6149 53 614855 5w
```

For convenience, the shared percentages on the right-most edge on the diagonal line were arranged so that the pairs with the lowest percentages were placed at the end of the Zone F spectrum, either to the top or bottom of the diagonal. Assumed linguistic relatedness and known geographical proximity were also considered where it was feasible. Then, the highest figure on that diagonal was identified and the pair merged as one unit.

Tahle +.2. (ollapsing highest percentage of Table +.1 ( $00 \%$ )
Be
52 Lo
6457 Su
$645889 \mathrm{Nk} \quad \mathrm{Nk}=90$
64588686 Da
7057787881 Ny
726079798184 Ga
68588182848484 Ko
6356777978797984 Kn
625576767674757882 Ks
67646871707278736768 si
6766707372748275716884 Yo
555075767569707475746665 Us
56517475746970757573676683 La
5652788177737377767269697977 Ha
585875747571727474716868717074 Ah
57567675767071747472667173717680 Rw
5553717172666869706763646968717977 Mu
565370697170677372706061666766716969 Mb
51426563656161666764535559586062626164 Ra
6153646466696970717053646264646462606356 Wu
505755565653605652525758505152535451494248 Hy
59545860566165615756646454525459655554575852 Hh
5447596063646664646457665759606159606360634954 Go
434044454751524849524646434545484545474349424157 He
52465556555758685859525353545455545256455748566049 Ky
5349626365636769656155576062626566646561614953614855 Sw

To determine the affinity between the varieties, the highest figure for each preceding table was collapsed, and the resulting new configuration became the subsequent table. In Table t.2, the highest figure of Table 4.1 was taken as $90 \%(\mathrm{Nt} / \mathrm{Ki})=$ GrnaNtuzu + JinaKrrya. The two language varieties were combined to be one entity, Nk , with the shared retention rate of $90 \%$.

Since Nk became one language, all the other languages associated with it as a single entity
were adjusted accordingly

To treat Nk as a single language, their two rows and columns associated with the other languages were collapsed into one row and column respectively. For instance, with KimunaSukuma, the shared vocabulary percentage in Tahle 4.1 is $87 \%$ with GinaNtuzu and $90 \%$ with JinaKirya. To obtain a single shared figure, the two were added, and then divided by two: (a) $87+90=177$, (b) $177-2=88.5$, or approximately $89 \%$. This became the shared percentage between Nk and Su (KimunaSukuma), appearing in Tuhle f.2.

Likewise, the shared figures of KiLoongo (Lo) with GinaNtuzu and JinaKirya (Nk) in Table f. $/$ are $57 \%$ and $58 \%$ respectively. These are collapsed by adding, and then dividing them by two, to obtain $58 \%$. This figure appears in Table +2 as a percentage between Nk and Lo. The figures collapsed in these rows are combined vertically, taking the top row figure ( $57 \%$ ). then adding it to the bottom row figure ( $58 \%$ ). The procedure is repeated to the end of the rows until ail language figures are collapsed to the utmost limit so that the languages cannot be combined any more.

On the other hand, the columns of figures which associate the combined language pairs are added horizontally, taking one language on the left and then combining it with its paired counterpart on its right. For instance, in Tahle \&.1, GrnaNtuzu and JinaKitya share with KIDakama $84 \%$ and $89 \%$ respectively. These two figures are horizontally placed. and by combining them, then adding and dividing by two, the result is $86 \%$, a percentage shown in

Tuh/e f.2. To aid reference of originally shared percentages, the numbers at the right margin of the tables refer to those original shared figures for that combination.

Tathe +.3. Collapsing highest percenage of Table +.2 ( $89 \%$ )
Be
52 Lo
6458 Sk $\quad \mathrm{Sk}=89 \quad \mathrm{Nk}=90$
645886 Da
70577881 Ny
7260798184 Ga
685882848484 Ko
63567878797984 Kn
6255767674757882 Ks
676470707278736768 Si
67667272748275716884 Yo
5550767569707475746665 Us
565175746970757573676683 La
56528077737377767269697977 Ha
5858757571727474716868717074 Ah
575676767071747472667173717680 Rw
55537172666869706763646968717977 Mu
5653707170677372706061666766716969 Mb
514264656161666764535559586062626164 Ra
61536466696970717053646264646462606356 Wu
5057565653605652525758505152535451494248 Hy
595459566165615756646454525459655554575852 Hh
54476063646664646457665759606159606360634954 Go
4340454751524849524646434545484545474349424157 He
524656555758685859525353545455545256455748566049 Ky
53496365636769656155576062626566646561614953614855 sw
$89 \%=$ Sk $((\mathrm{Nt} /$ Ki $)($ GinaNtuzu + JinaKifya $)+\mathrm{Su}($ KImunaSukuma $)$
Percentage at right margin of table $=$ Original shared $\%$ for combination

Table +.t. ('ollapsing highess percenage of Table +. 3 ( $86 \%$ )

```
    Be
    52 Lo
    64 58 Sd Sd = 86 Sk = 89 Nk =90
    70 5780 Ny
    72608084 Ga
    685883 84 84 Ko
    635678797984 Kn
    62557674757882 Ks
    6764707278736768 Si
    676672748275716884 Yo
    55507669707475746665 Us
    5651756970757573676683 La
    565279737377767269697977 Ha
    58587571727474716868717074 Ah
    575676707174747266717371 76 80 Rw
    5553726668697067636469687179 77 Mu
    56537170 67 73 72706061666766 71 69 69 Mb
    514265616166676453555958606626261 64 Ra
    615365696970717053646264646462606356 Wu
    50 57 56 53 60 56 525257 58 50 51 5253 54 51 49 42 48 Hy
    59545861656157566464545254 59 65 55 54 57 58 52 Hh
    54476264 66 6464645766 5759606159606360 6349 54 Go
    43404651 52 48 49 5246464345454845454743 49 42 41 57 He
    524656 57 58 68 58 59 52 53 53 54 54 55 54 52 56 45 57 48 56 60 49 Ky
    534964636769656155576062626566646561614953614855 5w
86%=Sd= (Nt/Ki (GmaNtuzu + JinaKıya) + Su (KumunaSukuma) + Da (KIDakama)
Sd = Original KISukuma group (Su,Nt,Ki) + KIDakama (Da)
Percentage at right margin of table = Original shared % for combination
```

in Table f.f, two sets of languages share $84 \%$ (a) KINyanyeembe (Ny), SiGalagaanza (Ga) and KIKonoongo (Ko), and (b) SiSiloombo (Si) and SiYoombe (Yo). They are both iconically labelled Nz , for core KiNyamweezi and Sy for core SiSuumbwa. Although it appears that KIKIImbu North (Kn) would ideally be collapsed with the $\mathrm{N}_{z}$ group

Tahle +.5. Collapsing highest percentage of Tahle +. $+(8+6 \%)$

```
Be
52 Lo
6458 Sd Sd = 86 Sk = 89 Nk =90
70 58 81 Nz
Nz = 84
63567881 kn
625576 76 82 Ks
676571766968 Sy Sy = 84
55507671757466 Us
5651757175736783 La
565279747672697977 Ha
58587572747168717074 Ah
575676727472697371 76 80 Rw
555372677067646968 71 79 77 Mu
56537170727061666766 71 69 69 Mb
51426563676454595860626261 64Ra
6153656971705962646464 62 60 63 56 Wu
50575656 52 52 58 50 51 52 53 54 51 49 42 48 Hy
5954 58 62575664 545254 59 65 55 54 57 58 52 Hh
54476265646462575960 61 59 60 6360 63 49 54 Go
43 40 46 50 49 52 46 43 45 45 48 45 45 47 43 49 42 41 57 He
5246 56 61 58 59 53 53 54 54 55 54 52 56 45 57 48 56 60 49 Ky
53496466656156606262656664656161449536148 55 Sw
```

$84 \%=\mathrm{Nz}$ (KINyanyeembe (Ny), SiGalagaanza (Ga), KIKonoongo (Ko); $\mathrm{Sy}=84 \%$ (SiSiloombo (Si), SiYoombe (Yo)).

Percentage at right margin of table $=$ Original shared \% for combination
because it shares an $84 \%$ rate with KIKonoongo (Ko), its shared rate with the other two, KINyanyeembe ( Ny ) and SiGalagaanza (Ga) are consistently lower at $79 \%$, suggesting that KıKiImbu North ( Kn ) does not have such an immediate genetic relationship with Nz as a group. Most probably, the bond is with individual varieties facilitated by proximity and borrowing.

Table t.6. (ollapsing highest percentage of Table +5 (83\%)

```
Be
52 Lo
6458 Sd Sd = %6 Sk = 89 Nk =90
7058 81 Nz
Nz=84
63567881 kn
62557676 82 Ks
676571766968 Sy Sy = 84
56517671757467 Ul Ul = 83
5652797476726978 Ha
585875727471687174 Ah
575676727472697276 80 Rw
55 53 72 67 70676469 71 79 77 Mu
56537170727061676671 69 69 Mb
514265636764 54 59 6062 62 61 64 Ra
61536569717059636464 62 60 63 56 Wu
505756 56 52 52 58 51 52 53 54 51 49 42 48 Hy
59 54 58 62 57 56 64 53 54 59 65 55 54 57 58 52 Hn
54476265646462586061 59 60 63 60 63 49 54 G0
434046 50 49 52 46 44 45 48 45 45 47 43 49 42 41 57 He
5246 56 61 58 59 53 54 54 55 54 52 56 45 57 48 56 60 49 Ky
5349646665615661626566646561 614953 61 48 55 Sw
```

```
89% = Sk ((Nt/Ki) (GInaNtuzu + JinaKIrya) + Su (KImunaSukuma)
86%=Sd=(Nı/Ki (GinaNtuzu + JinaKirya) + Su (KımunaSukuma) + Da (KIDakama)
84% = Nz (KINyanyeembe (Ny), SiGalagaanza (Ga), KrKonooggo (Ko)
84% = Sy (SiSiloombo (Si), SiYoombe (Yo)).
83% = Ul (KinaUshoola (Us) + KinILaamba Central (La)
```

Percentage at right margin of table $=$ Original shared $\%$ for combination

Table 4.7. (ollapsing highest percentage of Table +.6 (82\%)

$82 \%=\mathrm{Km}$ (KIKIImbu North (Kn) + KiKifmbu North (Kn))

Tahle 4.8 . Collapsing highest percentage of Table 4.7 ( $81 \%$ \%)


Table +9. Collapsing highest percentage of Table $4.8(80 \%)$

| Be |  |  | Sk | $=89$ |  |  | $k=90$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 52 Lo |  |  | Sy | $=84$ |  |  | = 83 |
| 6758 SN |  |  | SN | $=81$ |  |  | $=86$ |
| 6356 | 78 km |  |  |  |  |  |  |
| 6765 | 7469 Sy |  |  |  |  |  | $\mathrm{z}=84$ |
| 5651 | $74 \quad 7567$ Ul |  |  |  |  |  | $=82$ |
| 5652 | 77746978 |  |  |  |  |  |  |
| 5857 | $74 \quad 736972$ | 75 Ar |  |  |  |  | = 80 |
| 5553 | 70696469 | 7178 Mu |  |  |  |  |  |
| 5653 | 71716167 | 667069 Mb |  |  |  |  |  |
| 5142 | 64665459 | 60626164 | Ra |  |  |  |  |
| 6153 | 67715963 | 64636063 |  | Wu |  |  |  |
| 5057 | $56 \quad 525851$ | 52545149 | 42 | 48 Hy |  |  |  |
| 5954 | $60 \quad 576453$ | 54625554 | 57 | 5852 Hh |  |  |  |
| 5447 | 64646258 | 60606063 | 60 | 634954 | Go |  |  |
| 4340 | $48 \quad 514644$ | 45474547 | 43 | 494241 | 57 | He |  |
| 5246 | $57 \quad 595354$ | 54555256 | 45 | 574856 | 60 |  | 9 Ky |
| 5349 | 656356616 | 62666465 | 61 | 614953 | 61 |  | 55 Sw |

```
81% = SN (Sk ((Nk (GinaNtuzu (Nt), JinaKirya (Ki)) + Su (KImunaSukuma) + Nz
(KINyanyeembe (Ny), SiGalagaanza (Ga), KIKonoongo (Ko))
80% = Ar (GiAhi (Ah), GIRwana (Rw))
```

Percentage at right margin of table $=$ Original shared $\%$ for combination
$\mathrm{Nk}=$ GInaNtuzu + JinaKIIya
Sk $=$ Nk (GinaNtuzu + JinaKıyya $)+$ KımunaSukuma
Sd $=$ Sk (Nk (GinaNtuzu + JinaKirya) + KımunaSukuma) + KıDakama
$\mathrm{Nz}=\mathrm{KINyanyeembe}+\mathrm{KIKonoongo}+\mathrm{SiGalagaanza}$
Sy $=$ SiSiloombo + SiYoombe
$\mathrm{Ul}=$ KInaUshoola + KInILaamba Central
Km = KikiImbu North + KiKnmbu South
$\mathrm{SN}=\mathrm{Sd}+\mathrm{Nz}$
$\mathrm{Ar}=$ GiAhi + GIRwana

Tahle +. 10 ('ollapsing highest percentage of Table $+.9(78 \%-\mathrm{SN}$. Km)

```
Be
52 LO SM Sy =84 UI Ol =83
6557 NM SN =81 Sd =86
676572 Sy
56 51 7567 UI
Nz=84
km = 82
5652 76 6978 Ha
5857 74697275 Ar
Ar = 80
55537064697178Mu NM = 78
5653 7161676670 69 Mb
5142655459606261 64 Ra
615369596364636063 56 Wu
50 57 54 58515254 51 494248 Hy
5954 5964 53 5462 55 54 57 58 52HH
54476462586060 60 63606634954 Go
4340 50 46 44 4547 45 47 43 494241 57 He
5246 58 53 54 54 55 52 56 45 57 48 56 60 49 Ky
5349645661626664 6561 614953614855 sw
78%=NM(SN+Km); Lm (Ul + Ha);RI (Ar +Mu)
Percentage at right margin of table \(=\) Original shared \(\%\) for combination
Nk = GinaNtuzu + JinaKırya
\(\mathrm{Sk}=\mathrm{Nk}(\) GinaNtuzu + JinaKIrya \()+\) KimunaSukuma
Sd \(=\) Sk (Nk (GinaNtuzu + JinaKırya) + KımunaSukuma \()+\) KıDakama
\(\mathrm{Nz}=\mathrm{KINyanyeembe}+\mathrm{KIK}\) onoongo +SiGalagaanza
Sy \(=\) SiSiloombo + SiYoombe
\(\mathrm{Ul}=\) KinaUshoola + KınILaamba
Km \(=\) KIkIImbe North + KIKIImbu South
\(\mathrm{SN}=\mathrm{Sd}+\mathrm{Nz}\)
\(\mathrm{Ar}=\mathrm{GiAhi}+\) GIRwana
\(\mathrm{NM}=\mathrm{SN}+\mathrm{Km}\)
```

Tahle +.11 ('ollapsing highest percemage of Table +.10 $178 \% / 1 /(1)$ - Ha)

| Be |  |  |  | $=89$ |  | N | $=90$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 52 Lo |  |  | Sy | $=84$ |  |  | $=83$ |
| 6557 | NM |  | SN | $=81$ |  | S | $=86$ |
| 6765 | 72 Sy |  |  |  |  | N2 | $=84$ |
| 5652 | 7668 Lm |  |  |  |  | Km | $=82$ |
| 5857 | 746974 Ar |  |  |  |  |  | $=80$ |
| 5553 | 70647078 | Mu |  |  |  |  |  |
| 5653 | 71616770 | 69 Mb |  |  |  | NM | $=78$ |
| 5142 | 65546062 | 6164 | Ra |  |  | Lm | $=78$ |
| 6153 | 69596463 | 6063 |  | Wu |  |  |  |
| 5057 | 54585254 | 5149 | 42 | 48 Hy |  |  |  |
| 5954 | 59645462 | 5554 | 57 | 5852 | Hh |  |  |
| 5447 | 64625960 | 6063 | 60 | 6349 | 54 Go |  |  |
| 4340 | 50464547 | 4547 | 43 | 4942 | 4157 | He |  |
| 5246 | 58535455 | 5256 | 45 | 5748 | 5660 | 49 | Ky |
| 5349 | 64566266 | 6465 | 61 | 6149 | 5361 | 48 | 55 Sw |

Percentage at right margin of table $=$ Original shared $\%$ for combination

```
Nk = GinaNtuzu + JinaKirya
Sk =Nk (GInaNtuzu + JinaKırya) + KımunaSukuma
Sd = Sk (Nk (GInaNtuzu + JinaKIIya) + KımunaSukuma) + KıDakama
Nz = KINyanyeembe + KIKonoongo + SiGalagaanza
Sy=SiSiloombo + SiYoombe
Ul=KrnaUishoola + KinILaamba Central
Km=KIkIImbU North + KIKIImbo South
SN=Sd+Nz
Ar}=\mathrm{ GiAhi +GIRwana
NM = SN + Km
Lm= Ul + KInIHaanzu
```

Table 4.12 Collapsing highest percentage of Table f.11 (78\%-Ar - Mu)


Percentage at right margin of table $=$ Original shared $\%$ for combination

```
Nk = GInaNituzu + JinaKnya
Sk \(=\) Nk (GInaNtuzu + JinaKiIya) + KImunaSukuma
\(\mathrm{Sd}=\mathrm{Sk}(\mathrm{Nk}(\) GrnaNtuzu + JinaKıya) \()+\) KımunaSukuma \()+\) KıDakama
\(\mathrm{Nz}=\mathrm{KrNyanyeembe}+\mathrm{KIKonoongo}+\mathrm{SiGalagaanza}\)
Sy \(=\) SiSiloombo + SiYoombe
\(\mathrm{Ul}=\) KinaUshoola + KinILaamba Central
Km = KIkirmbu North + KIKirmbu South
\(\mathrm{SN}=\mathrm{Sd}+\mathrm{Nz}\)
\(\mathrm{Ar}=\mathrm{GiAhi}+\mathrm{GIRwana}\)
\(\mathrm{NM}=\mathrm{SN}+\mathrm{Km}\)
\(\mathrm{Lm}=\mathrm{Ul}+\mathrm{KInIH}\) Hanzu
\(\mathrm{RI}=\mathrm{Ar}+\gamma\) пnyaMunyiganyi
```

Table +.12 indicates that $76 \%$ is the highest percentage. However, it is not at the edge. In order to facilitate collapsing the pair which shares it, it is essential to shift it to the diagonal, doing all the necessary adjustments in the rows and columns of relationships. The rearranged configuration is indicated in Table +.13 by shifting Sy to the top of NM.

| Be |  | Sk | $=89$ |  | $\mathrm{Nk}=90$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 52 Lo |  | Sy | $=84$ |  | $U \mathrm{II}=83$ |
| 6765 Sy |  | SN | = 81 |  | Sd $=86$ |
| 655772 N | NM |  |  |  | $\mathrm{Nz}=84$ |
| 565268 | 76 Lm |  |  |  | $\mathrm{Km}=82$ |
| 575567 | 7272 RI |  |  |  | $\mathrm{Ar}=80$ |
| 565361 | 716770 Mb |  |  |  | NM $=78$ |
| 514254 | 65606264 | Ra |  |  | $\mathrm{Lm}=78$ |
| 615359 | 69646263 |  | Wu |  | RI $=78$ |
| 505758 | 54525349 | 42 | 48 Hy |  |  |
| 595464 | 59545954 | 57 | 5852 Hh |  |  |
| 544762 | 64596063 | 60 | 634954 | 54 Go |  |
| 434046 |  | 43 | 494241 | 157 | He |
| 524653 | 58545456 | 45 | 574856 | 660 | 49 Ky |
| 534956 | 64626565 | 61 | 614953 | 361 | 4855 Sw |

Percentage at right margin of table $=$ Original shared $\%$ for combination

Tahle $+1+$ ('ollapsing highest percentage of Tahle +.13 (76\% $\%$ )

| Be | Sk | $=89$ | $\mathrm{Nk}=90$ |
| :---: | :---: | :---: | :---: |
| 52 Lo | Sy | = 84 | $U \mathrm{U}=83$ |
| 6765 Sy | SN | $=81$ | Sd $=86$ |
| 615570 NL | Km | $=82$ | $\mathrm{Nz}=84$ |
| 57556772 Rr |  |  | $\mathrm{Ar}=80$ |
| 5653616970 Mb |  |  | $N M=78$ |
| 514254636264 | Ra |  | $\mathrm{Lm}=78$ |
| 615359676263 |  | Nu | $\mathrm{R}_{\mathrm{I}}=78$ |
| 505758535349 | 42 | 48 Hy |  |
| 595464575954 | 57 | 5852 Hh |  |
| 544762626063 | 60 | 634954 Go |  |
| 434046484647 | 43 | 49424157 | He |
| 524653565456 | 45 | 57485660 | 49 Ky |
| 534956636565 | 61 | 61495361 |  |

Percentage at right margin of table $=$ Original shared $\%$ for combination
Nk = GinaNtuzu + JinaKirya
Sk $=$ Nk (GinaNtuzu + JinaKirya $)+$ KimunaSukurna
Sd $=$ Sk (Nk (GinaNtuzu + JinaKirya $)+$ KımunaSukuma $)+$ KıDakama

```
\(\mathrm{Nz}=\) KINyanyeembe + KIKonoongo + SiGalagaanza
Sy \(=\) SiSiloombo + SiYoombe
\(\mathrm{UI}=\) KInaUshoola + KiniLaamba Central
\(\mathrm{Km}=\) KIkIImbu North + KıKIImbu South
\(\mathrm{SN}=\mathrm{Sd}+\mathrm{Nz}\)
\(\mathrm{Ar}=\) GiAhi + GIRwana
\(\mathrm{NM}=\mathrm{SN}+\mathrm{Km}\)
\(\mathrm{Lm}=\mathrm{Ul}+\mathrm{KInIH}\) aanzu
\(R I=A r+\gamma I n y a M u n y i g a n y i\)
\(N L=N M+L m\)
```

Tahke +15 (ollapsing highest percentage of Table $+1+(72 \%$ )


| $\mathrm{Nk}=90$ | $\mathrm{Ul}=83$ | $\mathrm{Lm}=78$ |
| ---: | ---: | ---: |
| $\mathrm{Sk}=89$ | $\mathrm{Km}=82$ | $\mathrm{RI}=78$ |
| $\mathrm{Sd}=86$ | $\mathrm{SN}=81$ | $\mathrm{NL}=76$ |
| $\mathrm{Nz}=84$ | $\mathrm{Ar}=80$ | $\mathrm{NR}=72$ |

Percentage at right margin of table $=$ Original shared $\%$ for combination
Nk = GIna Ntuzu + JinaKIrya
Sk = Nk (GrnaNtuzu + JinaKirya) + KimunaSukuma
Sd = Sk (Nk (GinaNtuzu + JinaKirya) + KımunaSukuma) + KıDakama
$\mathrm{Nz}=$ KINyanyeembe + KIKonoongo + SiGalagaanza
Sy $=$ SiSiloombo + SiYoombe

$$
\begin{aligned}
& \mathbf{U} 1=\text { KInaUshoola }+ \text { KInILamba Central } \\
& \text { Km = KikiImbu North + KIKIImbu South } \\
& \mathrm{SN}=\mathrm{Sd}+\mathrm{Nz} \\
& \mathrm{Ar}=\text { GiAhi }+ \text { GIRwana } \\
& \mathrm{NM}=\mathrm{SN}+\mathrm{Km} \\
& \mathbf{L m}=\mathbf{U 1}+\mathrm{KinIH} \text { aanzu } \\
& \mathrm{RI}=\mathrm{Ar}+\gamma \mathrm{InyaM} \text { myinanyi } \\
& \mathrm{NL}=\mathrm{NM}+\mathrm{Lm} \\
& \mathrm{NR}=\mathrm{NL}+\mathrm{RI}
\end{aligned}
$$

For practical purposes, Table 4.15 can be the final stage in combining the languages. although this raises the question of cut-off points in sub-grouping. When dealing with the classification of related languages using lexicostatistics, where should sub-grouping stop in collapsing percentages and combining them into nodes of related languages/dialects? According to glottochronology, the method from which all the assumptions in lexicostatistics are based, the interval from NR to KeeMbuwe is 1182 years' (or the split occurred in 817 AD), given the $70 \%$ shared vocabulary, recorded in 1999 . With SiSuumbwa, the shared vocabulary with NR is $69 \%$ or 1230 years ago, in 769 AD. This span is suspect because it does not change much even when compared to lower levels like dialects. With KISukuma. SiSuumbwa shares $71 \%$ or they split 1135 years ago in 864 AD; with KINyamweezi, excluding KIDakama they share $76 \%$ or the split occurred 910 years ago in 1089 AD . Since most of the languages forming NR share vocabularies in the $80 \%$ s, then SiSuumbwa in the $70 \%$ s is unlikely to be joined to them, and hence the cut-off point is justified.

[^73]But the difficulty of determining a limit remains real when the lower percentages after $72 \%$ are separated by short intervals only, such as $70 \%$, followed by $69 \%$. etc. Since the rates of shared retention are relative distances, the higher than $70 \%$ rate within the NR node is suggestive of a minimum, which can be observed even in Table +. I. Addressing this question of a cut-off limit, Hymes (1960 26-7) points out that it is a difficult matter to decide. partly because of inadequate studies on procedure, but also partly because of the many factors involved in differentiating related languages. When speakers of languages separate, distance from each other over time increases linguistically and spacially. With more quantity of distance and time of separation, communication eventually fails because the languages spoken by the two separated speech communities change in quality from the earlier. common form. On the other hand, when speakers of two languages are adjacent, with communication between them constant, their languages, even if they are different, will tend to converge because time or space bridges, rather than increases, the gap of communication. For instance, if in the NR node the percentage is generally higher, then any slight variation draws attention This is clearly shown by SiSuumbwa, which, though its speakers have been adjacent with the NR languages for a long time, maintains a visible difference in shared retention, in the 70 s . while the neighbouring NR languages are consistently in the mid- 80s or higher (See Table 4.1).

### 4.1.2.2 Lexicosfatistical suhgrouping: Analysis and discussion of results

Lexically, the statistics show that Zone F excludes five original members, namely ictWuungu. KiBende, KiiRangi, KeeMbuwe and KiLoongo. Of these, KiLoongo was normally ignored in the past and therefore it did not feature in any zone. except for mentions in anthropological or archaeological studies (Abrahams 1967, Soper and Golden 1969). On the other hand, the other four are the same languages which have been a focus of aftiliation scepticism for some time, frombeing not known well enough (Nurse (1979a:28-9), Nurse and Philippson 1980:47-8), to that of being reasonably known enough to warrant some conclusions, although a systematic study had not been conducted (Nurse 1999:10-1) SiSuumbwa is borderline between known and unknown, for some time now characterized by uncertain statements of affiliation and history

Those included in Zone F are not that homogeneous either since there are clear subdivisions based on the different shared retention rates as shown in Figure +.1. The shared retention rates among different levels are summarized in Tahle +15 , and reproduced below for convenience.

(138)

$$
\begin{array}{lrr}
\mathrm{Nk}=90 & \mathrm{UI}=83 & \mathrm{Lm}=78 \\
\mathrm{Sk}=89 & \mathrm{Km}=82 & \mathrm{RI}=78 \\
\mathrm{Sd}=86 & \mathrm{SN}=81 & \mathrm{NL}=76 \\
\mathrm{Nz}=84 & \mathrm{Ar}=80 & \mathrm{NR}=72 \\
\mathrm{Sy}=84 & \mathrm{NM}=78 &
\end{array}
$$

From the shared percentages in (138), a linguistic tree of 14 nodes can be constructed (/rigure f. I). It is encouraging to note that the traditional groupings within Zone F are more or less the same, except that their internal relationships show the hierarchy in which the different dialects are associated. The traditional Zone F listings, as in other zones, did not suggest any hierarchies between the dialects identified, as though assuming that all dialects/languages were coordinate partners.

An important point noted by Nurse and Philippson (1980 38-9) with regard to the 76 languages they investigated concerns influence due to closeness, regardiess of genetic affiliation, whereby higher similarities are registered with closer neighbours as higher percentages of shared retention. and consistently lower with distant ones. This proximity hypothesis in raising or lowering retention rates is informative with regard to cut-off points. In our data. the shared percentages depended on whether the neighbour had a higher or lower percentage rate of retention, suggesting that a language with a higher figure on its own would have an even higher one if its neighbour had an equal or higher rate, and vice versa. For instance. KeeMbuwe would show higher shared rates if it were surrounded by equally Bantu languages with higher retention rates, while KiLoongo would show a lower rate than is currently shown, because it is surrounded by KiSukuma, with higher retention rates. In other words, if a language which had lost much of its inherited vocabulary came in contact with. and borrowed from, languages which had a higher retention rate, it would itself seem to have retained a higher retention rate. The converse is true with regard to the lowering effects of
neighbouring languages. KIKIImbu is phonologically conservative and stable, but it is surprising that the retention rate is lower than expected. The likely explanation is contact with KINyamweezi which lowered the count by replacing the original words. It may be the case that KiBende would have a lower retention rate if it were not adjacent to KIKonooggo or SiGalagaanza.

Because of this scenario, the KISukuma (89\%), KINyamweezi (84\%), SiSuumbwa (84\%). KIKIImbu ( $82 \%$ ). KInILaamba ( $78 \%$ ) and KIRImi (78\%) groups' internal rates would be different if they were not surrounded by languages which tend to lower or raise their shared percentages. And since this larger group of 6 subgroups is characterized by high retention rates, its rate would be even higher than the current $83 \%$ average between them if they did not hypothetically experience that contact. With this high average figure for the 6 groups. the exclusion of rcrWuUngu. KiBende, KiiRangi, KeeMbuwe and KiLoongo at 70\% or less. is justified. Otherwise. many languages including those outside the zone would behave like the immediate sister languages of Zone $F$.

This also raises the question of the role of mutual borrowing in contact situations. For instance, KInıHaanzu's proximity with JinaKirya makes its overall figures closer to those of KISukuma-KINyamweezi than to some of the members of its KinILaamba group, as shown in Table f.l. This supports and explains the similarity of some phonological features described in Chapter 3, illustrating the case pointed out by Hinnebusch (1999 176-8) about
similarity due to language comact. When speakers of different languages interact often, the relationship leads to the diffusion of vocabulary and its phonological features from and irto those languages. Thomason and Kaufman (1988:53) actually suggest that features can be borrowed from one language into another even when they do not tit the typological nature of the other language. They may later become significant innovations in the recipient language. When the languages in question are typologically the same, and the speakers have been adjacent and interacting for a long time, detecting borrowing between them is a challenge, so that any slight difference is significant.

### 4.1.2.3 Lexicostatistics, absolute chronology and linguistic grouping in Zone $F$

 While the results closely resemble the traditional classification of the obvious individual groups like SiSuumbwa, KıSukuma, KiNyamweezi, KıRimi, KiKirmbu, rCiWuungu. KiiRangi, KeeMbuwe and KiBende, to a great extent expected zonal unity is undermined In the linguistic tree, some languages are excluded because of retaining lower vocabulary percentages than expected. The variation should be small if languages really belong to the same group. Because language relationships can be graded in a continuum of closeness rather than viewed as discrete entities, including or excluding any member like SiSuumbwa and KeeMbuwe from Zone $F$ is a difficult decision, as they have relatively higher percentages than the rest of the excluded varieties. This indeterminate division into discrete units between one language or dialect and another needs an interpretation of the patterns observed in a historical perspective based on what really happened.The relationships between languages shown in the tables above so far suggest that the prospects for Zone F maintenance are improved. Chapter 3 greatly undermined the unity of the zone by showing how irregularly the major phonological processes are distributed in Zone F, indicating a doubtful genetic relationship. The vocabulary in this chapter presents a better picture by showing that, although the lexicostatistical application excludes some members. the remaining ones show some cohesion. But as pointed out above. lexical unity may also have been mainly facilitated by the lengthy proximity of the speech communities. The effect is seen in how the rates of shared vocabulary are modified when lanyuages are adjacent, as observed by Nurse and Philippson (1980a)

For instance, while some traditional classifications group KinILaamba, KIRImi and KIKirmbe as one unit, on the one hand, and SiSuumbwa, KiSukuma and KiNyamweezi on the other as core units of Zone F, our study displays different hierarchies as shown in /igure f. I (Cf Nurse 1979a:28). The levels in this lexicostatistically based pattern indicate that. SiSuumbwa is out of the picture, a situation which Nurse (1979a) notes as an intluence to SiSuumbwa, as an F member, by the GiHa and KiZinza group The remaining ones. KıSukuma, KiNyamweezi, KınILaamba, KiRimi and KıKırmbu branch in a complicated way. The following are the results of the patterns in Figure +1. The first spht removed

KiRimi from the larger group 1089 years ago, in 910 AD , indicated by $72 \%$ of shared vocabulary, illustrated in Tahle +16 for all the possible split times in our study ${ }^{2}$.

Table t. 16 Time estimates of language weparation using index of . 80 for 1000 years expressed as a percentage rate of retention (Ret) of shared vocahulary:

| Ret \% | Years | Ret \% | Years | Ret \% | Years | Ret \% | Years | Ret \% | Years |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 90 | 349 | 80 | 740 | 70 | 1182 | 60 | 1693 | 50 | 2298 |
| 89 | 386 | 79 | 781 | 69 | 1230 | 59 | 1749 | 49 | 2365 |
| 88 | 428 | 78 | 824 | 68 | 1279 | 58 | 1806 | 48 | 2433 |
| 87 | 462 | 77 | 856 | 67 | 1328 | 57 | 1864 | 47 | 2503 |
| 86 | 500 | 76 | 910 | 66 | 1377 | 56 | 1922 | 46 | 2574 |
| 85 | 539 | 75 | 954 | 65 | 1428 | 55 | 1982 | 45 | 2647 |
| 84 | 578 | 74 | 998 | 64 | 1480 | 54 | 2043 | 44 | 2722 |
| 83 | 618 | 73 | 1043 | 63 | 1532 | 53 | 2105 | 43 | 2798 |
| 82 | 658 | 72 | 1089 | 62 | 1585 | 52 | 2168 | 42 | 2876 |
| 81 | 699 | 71 | 1135 | 61 | 1639 | 51 | 2232 | 41 | 2956 |
|  |  |  |  |  |  |  |  | 40 | 3038 |

(139)

| $N k=90$ | $U l=83$ | $L m=78$ |
| :--- | ---: | ---: |
| $S k=89$ | $K m=82$ | $R \mathrm{R}=78$ |
| $S d=86$ | $S N=81$ | $N L=76$ |
| $N z=84$ | $A r=80$ | $N R=72$ |
| $S y=84$ | $N M=78$ |  |

${ }^{2}$ The years in this table use the formula $1-\log C \quad 2 \log r$ introduced in Chapter 1 , where $t$ is the time of separation in years, obtained by calculating $C$. a percentage of the retained words from a list of 100 words, and $r$ is a given constant 86 , which is assumed to be a ratio of 86 words retained out of 100 after the initial 1000 years have passed.

The percentages in (139) are those calculated from Tables +.1 to +.15 , as shared vocabulary between the nodes identified. They are repeated here for ease of reference. From the tree, after KIRImi split, the remaining group split into two again, 910 years ago, in 1089 AD. when KinILaamba diverged, as shown by the shared vocabulary of $76 \%$ at that level. In 1175 AD , KIKIImbu diverged from the remaining group, shown as a retention rate of $78 \%$. It was at that same period that KiniHaanzu splintered from the larger KiniLaamba group which had split earlier. When KIKIImbu split from the remaining larger group, it was the KiNyamweezi and KiSukuma groups that still remained together. In 1300 AD, or 699 years ago, they split. KINyanyeembe, KIKonoongo and SiGalagaanza as one group. and KISukuma and KiDakama another. shown with a shared retention of $81 \%$. KIDakama split from the rest of the KISukuma dialects later. in 1499. or 500 years ago, with a shared retention of $86 \%$. Modern KISukuma dialects began to be differentiated in 1613 when KimunaSukuma split from the others, some 386 years ago, indicated as $89 \%$ of shared vocabulary. And in 1650 . or 349 years ago. JinaKirya and GinaNituzu separated ( $90 \%$ ).

How historically true are these years of splits? This is a different matter which the method itself can only be credited for proposing. The rest may depend on two things: availability of corroborating external evidence and the interpretation of the results. especially of any unexpected deviations from the facts of known history.

To begin with, dates by other researchers concerning Zone F or its members can put these lexicostatisically based calculations in perspective, although these are not many. Neither are they reliable, since they are also only hypotheses of the events. For instance. Ehret (1984:489) gives some dates for part of Zone F. Although he does not state how he got those approximate years, their similarity with ours is striking and interesting, as compared in

Ehret 's estimates (1984: 88 )
By 500 AD: Division of Proto Takama into 3 groups: F21/F22, F24 and F31/F32

1100-1600 AD Divisions of KiWembere speakers (KInILaamba and KIRImi)

This sutuly's lexicontanssicul figures
By 1300 AD: F32. F31, F24 and F21/F22 divided, though F32 split in 910 AD
910. Split of KIRImi from the rest of Zone F core group

The margins of error of the dates in (140) depend on the method used and the assumptions of the beginnings of humanity. From the years by Ehret indicated above, lexicostatistics is not that bad for giving rough estimates of linguistic relationship, just as it works to some reasonable degree when the lexicostatistical results are subjected to glottochronology as a measure of absolute dating applied to the nodes. Even Carbon 14 depends on ideal conditions for the accuracy of its results. If the historical facts of an area are known by other means, then the figures of lexicostatistics begin to make sense. This is consonant with the metaphor of Carbon 14: if it is contaminated, the years obtained may not match the actual chronology In linguistic terms, when a speech community remains in relative isolation, maintaining
constant communication between its members, the language is unlikely to change in an irregular way. This will be reflected by high retention rates. This is an ideal situation which rarely obtains in reality, except in a few rare cases (Ross 1998:142). On the other hand, when movements and interactions of people are numerous. especially when there are social. political and economic changes and upheavals like wars, pestilence, conquests, plunder. invasions and repression, linguistic change over time is likely to be greatest, reflected by lower retention rates in the intermingling speakers of different languages. Any figures given therefore, whether as retention percentages or glottochronological years, depend on all factors impinging on the ideal situation. This makes lexicostatistics and glottochronology similar with other methods which impose conditions for their reasonable accuracy. Failure to observe those conditions does not make the methods worse than others

When those conditions are observed, the foilowing ideal divisions are used to rank linguistic levels from dialect to macrophylum. The only problem here is that the system of assigning retention rates and linguistic levels is not uniform, suggesting that linguistic science in the area of dating is still in its infancy. For example, Crowley (1997.184) ascribes the different assignment of retention rates and linguistic levels to idiosyncratic choices by practicing linguists. In Table 4.17, two systems have been used for classifying and dating Pacific languages.

Tahle +. 17 Langnage, dialect. time of separation and shared percentage (After ('row/ey 1997:182. (84)

| Systern A |  |  | System 8 |  |
| :---: | :---: | :---: | :---: | :---: |
| Approximate years of separation | Level of subgrouping | \% shared cognate core vocabulary | Level of subgrouping | \% shared cognate core vocabulary |
| 0-500 | Dialects of one language | 81-100 | Dialects of a language | 81-100 |
| 500-2500 | Languages of a family | 36-81 | Languages of a sub-family | 55-81 |
| 2500-5000 | Families of a stock | $12 \cdot 36$ | Subfamilies of a family | 28-55 |
| 5000-7500 | stocks of a microphylum | 4-12 | Families of a stock | 13-28 |
| 7500-10000 | microphyla of mesophylum | 1-4 | Stocks of a phylum | 5-13 |
| 10000 - | mesophyla of a <br> macrophylum | 0-1 |  |  |

Tahle +. 18 Median rating and retention dates henveen languages (After Ehrel 2000:288)

| Approximate median <br> dating in BP (Before <br> the Present) | Retention rate <br> between languages <br> $\%$ | Approximate median <br> dating in BP (Before <br> the Present) | Retention rate <br> between languages <br> $\%$ |
| :--- | :--- | :--- | :--- |
| 1000 | 74 | 6000 | 16 |
| 2000 | 55 | 7000 | 12 |
| 3000 | 40 | 8000 | 9 |
| 4000 | 30 | 9000 | 7 |
| 5000 | 22 | 10000 | 5 |

But sometimes these systems differ significantly. It is indeed disturbing to note that the same labels like 'language', 'language family' or 'linguistic stocks' are used to refer to different retention rates and different linguistic levels. Ehret (2000) provides another scale as a ratio of retention to time, shown in Table +.18 . Compared to the rates in Fahle 4.17 , the numbers are not identical, although they should be, where the same concept is used to mean the same thing.

This inconsistency in the value of units, labelling and therefore criteria for subgrouping may be one of the reasons why some linguists regard the twin methods as a waste of time. Practically, it remains true that sloppy application of method should not be confused with the method itself, which is quite good, as good as the regularly used comparative method. The comparative method has its weaknesses For instance, in dealing with genetically related languages it uses only regular correspondences. If material does not correspond regularly. then it is left unaccounted for. or is simply labelled 'borrowed' as Ross (1996:180) puts it.

While in Chapter 3 the phonological picture suggested similarity due to convergence of adjacent languages, this part of quantitative evidence using lexicostatistics and glottochronology suggests divergence of a once unitary language Ehret (1984-497) interprets the situation in the same way: from Proto Takama to the various groupings which later gave rise to F21, F22, F24, F31 and F32. Nurse (1999:3), on the other hand, uses the metaphor of a limited version kaleidoscope, a tube of mirrors reflecting constantly changing
patterns of colour. In this metaphor, the languages are in constant flux, diverying and converging, splitting and merging as circumstances surrounding the speakers change through time and space, with individual speakers, in small or big groups, criss-crossing familiar paths rather than blocks of languages moving uni-directionally, replacing other languages as they pass. Qualitative evidence based on lexical innovation sheds yet more light on the linguistic history of Zone F , particularly SSN , as various speakers of different linguistic groups interact in an endless process of human survival

### 4.2 QUALITATIVE EVIDENCE IN LEXICAL INNOVATION

This section focuses on lexical innovation as a linguistic mechanism which serves to isolate one language from another, as evidence of independent historical evolution. If such innovation is shared by a set of languages, then it is assumed that those varieties share a common history from the past and therefore a genetic relation between them can be justified. Such innovation is evaluated in terms of three aspects: borrowed items confined within a single group only; shared and consistent morphological similarity among language varieties with no other reason for that resemblance except evolution from the same path from a common ancestor language: unique lexical creations which cannot be attributed to chance between any two or more languages/dialects except to a common historical path, even when an existing source is present, but is not known. Nurse and Hinnebusch (1993 285), Batibo (1992, 1996), Schoenbrun (1997), Ehret (1999) among others, utilize this technique in tracing the history of a group of languages.

The minimal unit of analysis used is the dialect, while the maximal grouping is Zone F. Inbetween, the intermediate levels are examined, each one indicating its unique innovations that purport to join a number of member linguistic sub-units. By definition, the dialect is expected to be unique by having a feature or set of features which are not found in the other sister dialects belonging to the same higher level that unites them, a language, as their parent. On the other hand, Zone F may be identified by the isolation of some key innovations displaying two essential characteristics. Firstly, those features peculiar to Zone F must run throughout the members of the group without exception so that affiliation, existence or validity as a Zone is displayed without any reasonable doubt, and secondly, those features shouid not be found in other zones which form Bantu. To accomplish the task of comparison, the following method was employed in the identification, selection, and use of lexical items.

From the basic list of the 1036 words, not all could be utilized for comparison. Only about 400 or so were actually selected as useful. 200 or so were judged to be inherited from Proto Bantu and therefore they were excluded, unless some special interest emerged. Inherited words as common items across a number of languages are normally realized differently in matters of detail from one language to another due to their different paths of historical development. Such common vocabulary appeared in almost all 22 language varieties, and it was easily recognizable in form and meaning in other Bantu languages beyond Zone $F$ as well. As inherited items, they could not be used because they do not show any uniqueness which would help isolate Zone F from the rest of the other zones.

From that list of 1036 words, an additional 400 or so words could not be used at all because of some inconsistencies, which can be categorized into at least five groups. Firstly, verbs of motion in many languages, such as those referring to 'run', 'lift', 'jump' seem too amenable to inconsistent innovation, so that each language variety in extreme cases had its own word. depending on the shade of meaning an informant happened to remember readily. Difference of item in this case was not necessarily an indication of different origin.

Secondly, some words were simply ambiguous, and one response was as acceptable as the other depending on which item an informant picked from the range of several possibilities available to him/her at the moment. Hence, a difference of morpheme meant two things: different origin or different concept. For instance, a word like 'cut' in JinaKrtya would be getema, gu-ßuta. gU-cheemba, or go-tina, gu-jega, depending on what object or how that object was cut. or both. Another interesting word was 'unripe, half-grown' In JinaKrtya, as in other speech communities specializing in a particular activity like farming, to be unripe is not enough. It depends on what object is unripe. For instance, it can be -nagana (for vegetables and other fruit eaten raw like cucumbers and their families); -uInd (millet and maize stalks); ji-deema (baobab young tree only), ma-noga (groundnuts/peanuts only): and - ßIsI (fruit, wild and cultivated, like water melons, oranges). A concept like 'to teach' also caused problems of choice among possibilities, although it did not seem ambiguous at first. The response to that one depended on what was taught and/or for how long, as the following illustration from JinaKIIya shows: gu-laayga (general instruction, short or long term); gu-
toonga (specific to one occasion only, normally for a short duration); go-heembeka (used in medicine only as long term instruction which can take many years, although it can be extended to other types of specialized or exclusive instruction as well); gu-fuunda (used for girls only in relation to teachings of family life and its preservation): gu-hana (used for the instruction of secret subjects).

Thirdly, taboo and sacred words like those referring to private parts and fluids emanating from them commanded a high innovation rate which was inconsistent with the straightforward referential meanings For instance, in some languages, 'sperm, semen' was often not translated, and when a response was provided, its root was the same as either for water or urine. Other words in this category included 'copulate', 'testicle', 'dead person', 'god'. and 'spirit'. With such concepts, euphemisms are more common than the conceptual ones. which, for many, are unknown or too embarrassing to mention to strangers.

Fourthly, onomatopoeic words like that referring to 'cat' as nyau, or nyaaßu were ignored since they could be found in other areas beyond Zone $F$ as well

Finally, some of the concepts or objects were simply not known to either the informants. the researcher himself, or to both. These were not translated very well, not because the word did not exist, but simply because the participants had no clue what the word was talking about.

Among others, these included the names of some animals, trees, or birds which were either not known, have been forgotten, or have not been seen.

With this scenario in mind, it becomes obvious that the critical list of words can be quite small and yet significant enough for isolating a linguistic group. In some cases therefore, one word may be useful in a set of languages and not in others, while some words can cut across linguistic sub-groupings displaying clear sub-divisions by difference of retlex form.

On the other hand, when lexical innovations in one group are totally absent or their status questionable, serious doubts of validity and reliability of classification are raised A historically valid linguistic grouping is expected to be open to observation and scrutiny, based on accessible evidence like innovation. This does not mean. however, that absence of evidence or clues is indicative of absence of historical connection in a contested case. The cases of doubtful historical connection are illustrated in some words below by question marks. Doubt only emphasizes the point that a word must withstand rigorous tests to qualify as a useable item in classification

For comparative purposes. Nurse and Philippson's 1972 list is used where 100 language varieties were extracted from CBOLD ${ }^{3}$. In addition, Nurse's unpublished field notes have

[^74]been used in many cases, especially with regard to those languages which are not included in CBOLD, like CiGogo (GII). One limitation encountered in using the CBOLD list and which readers should be aware of is the use of an orthography limited to symbols for 5 vowels only, excluding the common lower high/I/ and /U/, especially for the 7V languages. In addition, the consonant inventory is limited, based on the KiSwahili orthography of 24 letters (a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,r,s,t,u,v,w,y,z), from the Roman alphabet which was acquired through English, but without the ' $x$ ' and ' $q$ '. Vowel length is also not indicated consistently in the CBOLD list. phonologically or phonetically. The justification for such inaccurate recording is understandably a historical one, because most of the informants who prepared the lists themseives had the 5 -vowel and 19 -consonant KiSwahili writing system in mind when they transcribed their results from their mother tongues. KiSwahili does not show vowel length in its writing system ${ }^{4}$ either. Linguistically, showing short vowels only as if there is no length contrast is unfortunately unacceptable because it misrepresents both phonological and phonetic facts. For instance, the consonant inventory used in the orthographies of all the transcriptions does not include some other common phonemes like $/ \beta \phi \gamma \mathrm{x} /$, which are quite widely distributed outside KiSwahili and English. The status of $/ / /$

[^75]and $/ \mathrm{r} / \mathrm{is}$ also problematic in some Bantu languages, where the two are sometimes used in free variation, often in a haphazard way. The most frequent liquid from $P B$ *d in most of the Bantu languages of eastern Africa is $/ /$. This inconsistent representation of liquids is illustrated by some members of EJ and DJ groups. In these languages, the use of $\mathrm{V} / \mathrm{r}$ is not uniform, even within one language variety, calling for a systematic study of their status in order to isolate the phonological from the phonetic and orthographic. For instance, Muzale (1998 xviii) chooses " $r$ " as a generic symbol to represent both phonemic and orthographic examples for the whole of Rutara (some part of EJ). The only reason given to justify that choice is convenience. At times, this inconsistence of representation can cause serious and misleading interpretations as wrong vowel and consonant phonemes are used and assumed to stand for historical facts. And finally, some of the languages were recorded as if they were mono-dialectal. For instance, F22, oRuHaya, as it appears in comparisons only means that any one of the 4 dialects mentioned in this study or another was used.

### 4.2.1 Survey of qualitative evidence in Zone F

### 4.2.1.1 Diafects: 'buds' in the linguistic tree

As concrete linguistic realities, the 22 dialects investigated more or less fit the pattern of the discrete divisions known by the native speakers of those languages. Where a language has already been investigated and recorded by others, the divisions are also corroborated to a large extent, except for a few adjustments which are shown below. For instance, in addition to native speaker intuition and experience, KıRImi has three dialects (Olson 1964): KiiRangi
and KeeMbuwe, though similar, have significant differences. On the other hand, the majority of the dialects of Zone $F$ languages were only mentioned by previous scholars without being rigorously investigated and their similarities and/or differences identified and recorded in confirmation or rejection of the common wisdom taken for granted. Native speaker intuition can also be questioned if it is influenced by factors other than linguistic.

The languages which are fairly homogeneous include SiSuumbwa, which is formed by SiSiloombo and SiYoombe, although this does not mean that they are the only dialects in SiSuumbwa. The difference between KIKrimbu North and KIKIImbu South is also minimal. Such minimal variation is often brought about by surrounding languages impinging differently on them, depending on their locations and other sociolinguistic variables in an area. With this unequal exposure to different external forces which might also accelerate or trigger internal processes, each dialect becomes marked by either consistent lexical, morphological, tonal. or phonological differences on the one hand, or some combination of those markers. on the other.

This shows that each variety innovated differently as it took a different historical path. Some of these distinguishing features are unique to the individual dialects, while the others are shared by neighbouring dialects of other groups as well. Since the existence of the majority of these dialects is not in dispute, just a few cases to illustrate their independent histories will suffice

One point to note however is that only one variety was used for KiiRangi, KeeMbuwe, triWouggu and KiBende. One justification for using only one form was the assumption that they have minimal variations internally, due to their speakers' expected dense social networks facilitated by their confined geographical locations, compared to languages like KISukuma or iGiHa, whose speakers occupy areas large enough to cause complete isolation and much easier separate linguistic developments. This generalization is, however, not always accurate, since there are other factors which make homogeneity difficuit even when those languages or dialects are geographically adjacent. For the other languages, examples of dialectal difference are important to highlight, since such variation at the lowest levels forms the foundation for grouping and isolating the upper nodes of proto languages.

For instance, JinaKrrya is unique in having Dahl's Law dissimilation operating to the right if the usual left-hand target consists of a voiceless fricative, rather than the canonical Dahl's Law case of dissimilating the first of any consecutive voiceless stop syllables, as in Idatu $<$ *-tatu three'. GinaNtuzu and KimunaSukuma adhere to the standard rule. while JinaKirya takes a step further, as in Isaga $<$ isaka $<^{*}$-caka 'bush', or lofigu $<$ lu jiku $<$ *-cik 'day This is one important distinguishing marker for JinaKIIya.

On the other hand, it is only Ginantuzu which does not allow the infinitive marker ko(regularly changing to gu-) to be followed by a verb with an initial or short/i/ or $/ \mathrm{T} /$. to form a glide. The initial vowel of that verb, $/ \mathrm{i} /$ or $/ \mathrm{I}$, as the case may be, is deleted, and the vowel
$/ \mathrm{J} /$ of the intinitive also replaced by the higher $/ \mathrm{L} /$, as illustrated in Table +.IV. Apart from the glide-forming environment of the infinitive, other words with a potential glide are also affected.

JinaKıya uniformly forms a glide with the initial /i/ or $/ \mathrm{I} /$ of a verb and $/ \mathrm{k} /$ voices to $/ \underline{9} /$ consistently, as in GinaNtuzu, while KimunaSukuma also forms the glide consistently, but additionally and uniquely for this group. maintains $/ \mathrm{k}$ /

Table +. 19 Infmutive *kU- as at important dialect morphological marker in KLiskuma

| Dialect Proto Bantu . | GmaNtuzu | JinaKırya | KımunaSukuma |
| :---: | :---: | :---: | :---: |
| --yrtik- 'answer a call' | gudika | gwidika | kwiidra |
| *-deg- 'avoid, dodge' | guliga | gwtliga | - |
| *-yzt- 'call' | gutana | gwitana | kwitana |
| *-tosk- 'carry on to head' | gudınka | gwidinka | kwiidrika |
| *-yij- 'come' | guza | gwiza | kwiiza |
| '-yijk- 'give' | guna | gwına | kwiṇa |
| '-yigu- hear' | gugwa | gwigwa | kwigwa |
| --yit- 'pour away' | guta | gwita | kwita |
| * 'squat' | gutuonda | gwituenda | kwiltounda |
| *-yib- 'to steal' | gußa | gwißa | kwiißa |
| *-yıb- 'to forget' | gwirßa | gwilßa | kwirßa |
| *-yingid- 'to go in, enter' | gwiingrla | gwingria | kwiingrla |
| '-yim- to stand' | gwimmia | gwirmila | kwiIminia |
| - guina 'crocodile' | nuna | 7wina | $\eta$ wina |
| --yibi thief | nupi | Пwi $\beta$ i | ๆ wiißi |

The rest of the language varieties are treated in the main section using lexical innovation to show that they developed together or differently, and hence they are the same language or they are independent dialects of a language. For others like SiSiloombo and SiYoombe on the one hand, and KiLoongo on the other, the lexical and phonological differences indicate that they might actually belong to different languages, rather than dialects of one language, as shown below. The shared percentages in the nodes obtained in section +.1 .1 above and displayed as tables as well as showing a linguistic tree. are used to examine the justitication of the result against known historical facts about Zone F. Such a test also validates the lexicostatistical groupings as historically significant as well

The classification oflinguistic levels based on shared innovation in vocabulary which purports to define identified clusters is tested against words from other languages. Such words outside a given group are examined to find if there is any indication of relation, especially in cases of borrowing and genetic relation. In other types of innovation other possible sources are suggested. The final part in each linguistic node summarizes the observations as a whole and comments on the historical validity of such qualitative measures.

### 4.2.1.2 Dialect clusters: hierarchical nodes of historic languages

In the process of lexical analysis below, the vocabulary which is identified stands out as peculiar only to that group under discussion. The vocabulary can be unique in two ways belonging exclusively to that cohesive group as inventions or having words which are not
found in its larger group's lexicon, but are shared by outside languages because of areal influence, borrowing or genetic affiliation peculiar to it. In each language or language group analyzed, the unique creations (inventions) precede shared vocabulary. Unique creations are those words which are not inherited from Proto Bantu and are not found elsewhere except in that language or dialect. The only drawback with the 'uniqueness' label is that a unique word may not appear in other dialects, not because it is absent in those languages, but because those languages which might show the same unique word are not included in the sample of languages being used in the comparisons. This limitation in access to all data makes any conclusion reached here only tentative rather than an absolute fact.

On the other hand, shared innovation may refer to semantic or peculiar morphological innovations of inherited words, or loans from one language to another. As pointed out above, phonological innovations are not counted, although they may be listed to display an interesting pattern. Where appropriate, some comments are supplied to add more context to the words.

To facilitate actual frequency in shared vocabulary, the dialects are not counted in the final tallies. The whole group is listed, unless only one dialect displays the word. For instance, if one word occurs in F21 in all three dialects, then one observation is counted rather than three. since we are dealing with larger patterns. In other words. the total number of frequencies will equal or be less than the total number of groups observed in a linguistic grouping like Sk
(GInaNtuzu (F21b) and JinaKirya (F21c) which form a node of $90 \%$ of shared vocabulary in the lexicostatistical table of section 4.1.2.1 above.

The method used here, therefore, involves three stages: first, it lists all the dialects in which a lexeme occurs. groups those occurrences into their respective linguistic groups which are judged to be genetically valid ${ }^{5}$ and then represents the results in a graph as frequencies. Those graphs are a rough and relative display which shows how the target group compares to each of the external dialect or group used. An absolute display would include all dialects from all Bantu languages. The graph only gives an approximate visual picture of how much the various linguistic subyroups share vocabulary.

Secondly, those dialects sharing the innovation are grouped together into dialect or language clusters in the Guthrie numbering system where necessary. Full names like Rutara. East Ruvu (ERuvu), Seuta are used as conveniently short labels especially in groups which span different digits. For instance, Seuta includes G23, G24, G31, and G34, making a simple alphanumerical representation cumbersome. Kilombero is G50, and therefore it is easy to represent it as G50 rather than by the long name because all its members are included. The names of these groups are given in the list of abbreviations. For convenience, these names and the

[^76]languages they represent are given in (141). They are used interchangeably with their alphanumerical representations.

Western Highlands (DJ60) = KinyaRwanda (DJ61), KiRundi (DJ62). iKiFuliiru (DJ63), KiShußi (DJ64), KiHangaza (DJ65), iGiHa (DJ66), KiVinza (DJ67)
North Rutara (EJ11-14) = Runyoro (EJ11). RuTooro (EJ12). oLuNyankole (EJ13), oLuCiga/oRuCiga/RuCiga (EJ14)
South Rutara $=$ oRuNyambo (EJ21), oRuHaya (EJ22 (RuZiba (EJ22a), RuHamba (EJ22b), Runyalhangiro (EJ22c). RuHyoza (EJ22e)), RuZinza (EJ23), RuKereße (EJ24)
Suguti (EJ25) $=$ KiJita (EJ25a), KiKwaya (EJ25b), KiRegi (EJ25c), CiRuri (EJ25d)
North Nyanza (EJ15-EJ17) = LuGanda (EJ15), oLuSoga (EJ16), oLuGwere (EJ17)
Luhya (EJ30 and EJ41) = LuMasaaßa (E.J31) = LuGisu/LuKisu (EJ31a/b). Lußukusu (EJ31c1). oLuSyan (EJ31d), oLuTachon (EJ31e), oLuDadiri (EJ31f). LuBuya (EJ31g). LuWanga (EJ32a), oLutsotso (EJ32b), LuMarama (EJ32c), LuKisa (EJ32d). LuKabarasi (EJ32e), LuNyala (EJ32f), LuNyore (EJ33), oLuSaamia (EJ34). LuXaayo (EJ34a), LuMarachi (EJ34b). oLuSonga (EJJ34c), LuNyuli (EJ35), LuLogooli/LuRagooli (EJ41). Lwidaxo (EJ41a). Lwisuxa (EJ41b), oLuTiriki (EJ41c)
East Nyanza (EJ42-EJ45) = KiNgurimi (EJ401), Kilkizu (EJ402), KiKuria (EJ43), KiZanaki (EJ44) including varieties like iKilsenyi (EJ444b). KiNdali (EJ44c), KiSiora (EJ44d), KiSweta (EJ44e), KiRoba (EJJ44), GiRango (EJ44h), KiSimbiti (EJ44k), KiShaashi (EJ441), KiHacha (EJ44m), KiNata/Kilkoma (EJ45). (eKiGusii (EJJ42))
Thagicu/Central Kenya (E50) = Gikuyu (E51), KiEmbu (E52), KiMeru (E53), KiTharaka (E54a), KiCuka (E54b), KiKamba (E55) and KiSonjo (E46)
Chaga/Kilimanjaro-Taita (E60, with or without E74)KiRwo/KiMeru (E61). KiSiha (E611). KiChaga (E62), KiMachame (E62a), KiWunjo (E62b). KiRombo (E62c). KiWoso (KiBosho) (E62d), KiSeri (E62e), KiKeni (E621). KiArusha (E63), KiKahe (E64). KiGweno (E65), KiTaita (E74) = KiDapida (E74a), KiSagala (E74b)
Seuta (G20), (G30) = KiShambala (G23), KiBondei (G24), KiZigula (G31), Ki ${ }^{\text {I gulu ( }}$ (G34)
West Ruvu (G10, G39) $=$ CiGogo (G11), KiKagulu (G12), KiSagala (G39)
East Ruvu (G30) = Kiךhwele (G32), KiDoe (G321), KiZalamo (G33), Kilugulu (G35), KiKami (G36), KiKutu (G37), G38 CiVidunda
Sabaki (G40 and E71, E72, E73) = KiMwani (G401). KiMakwe (G402). CiFundi/KiShirazi (G403). KiTikulu (G41) $=($ Kitikulu (G41a), KiMbalazi $(G 41 b))$, KiSwahili $(G 42)=($ KiAmu $(G 42 a)$, KiMvila (G42b), KiMrima (G42c), KiUnguja (G42d)), KiPemba (G43) = (KiP ${ }^{\text {n }}$ emba (G43a), KiTumbatu (G43b), KiHadimu/KiMakunduchi (G43C)). KiKomoro (G44) $=$ (Kingazija (G44a). KiNjuani (G44b)), Kiфokomo (E71). KiDhaiso/KiSegeju (E56). MiiiKenda = (KiGiryama (E72a), KiKauma (E72b). KiConyi (E72c), KiDuruma (E72d), KiRabai (E72e). KiRibe (E72f), KiJibana (E72g), KiKambe (G72h)), KiDigo (E73))
KiLombero (G50) $=$ KiPogoio (G51). KiNdamba (G52)
Southern Highlands (G60) = eSiSangu (G61), eKiHehe (G62), ekiBena (G63), KiPangwa (G64). KiKinga (G65), KiWanji (G66), KiKisi (G67)
Corridor (M10 = Corridor-Fipa, M20 = Corridor Nyiha) $=$ iCiPimbwe (M11), KiLungwa (M12). CiFipa (M13), CiLungu (M14), CiMambwe (M15), iCiWanda (M21), CinaMwanga (M22), ijiNyiha (23). ifiMalila (M24), ifiSafwa (M25). Iwa (M26), Tambo (M27). (ICrWoungo (F25))
Nyakyusa (M30) $=$ IKINyakyusa (M31). CiNdali (M32)

Tanzanian CiNgoni (N10) = KiNdendeule (N101), KiNindi (N102), CiManda (N11), CiNgoni (N12). CiMatengo (N13). CiMpoto (N14)
Rufiji (P10) = KiNdengeleko (P11), KiRuihi (KiRufiji) (P12), KiMatumbi (P13), KiNgindo (P14)
Ruvuma (P20) = CiYao (P21), CiMwera (P22), CiMakonde (P23), CiMacinga (M231), CiMapiha (P25)

Where only a few members of a group show a lexeme, and others do not for whatever reason, then that group is represented in brackets, indicating that only some members displayed that word.

Thirdly, the list of all innovations is divided into two: unique creations and areal. "Areal" is a cover term for areal vocabulary, derivation, morphological innovation and borrowing, as indicated in the examples, and shortened to "areal vocabulary" in the text. A percentage is computed in each case to show the proportion of each. That percentage is another rough and relative indicator of how much a language innovated, and how much of its vocabulary is shared with other languages outside its zone. The measure is rough and relative because only limited vocabulary and language sample size outside zone F were used, rather than exhaustive lists of all possibilities. Where possible, the words are segmented to show basic morphemes. the roots, around which other morphemes are optionally attached

## +.2.1.2.1 Nmizu Kına (Nk) ( $90 \%$ ) (GDiaNmuzu (F2/b) - JinaKifu (F2/c))

The unique count is 4 out of 14 , or $29 \%$. The remaining $71 \%$ is composed of words which are shared by other Bantu languages, both adjacent and far-flung ones.
cure. (cool), heal go-prja (vt), gu-pila (vi): unique creation? "
prohounce go-haya:
slander. accuse fulsely (often secretly) go- $\beta$ owla:
skap (with from of open hand) vi/vt go-paala (I-pI): unique innovation? (same root as in M32 ${ }^{\text {T}}$ ? ku-pata?
(143) Areal vocabulary, derivation, morphological innovation and borrowing ( 10 words)
apply hy strectching go-koma (F3I, F32) -koma < Nk and spread, or vice versa?
he - $\beta$ iiza G60 ku-vedza; Luhya -wica; E60-iva?
hladeler Ituunji (F21c), ituunzi (F21b): <*-tund- 'urinate' by derivation
bowsiring loge F23a/b loge; EJ40, o-ruge; E74a luga; Thagicu rugaa; Rutara oruga; Borrowing, < F23a/F23b < F2Ib/F21c < Zone EJ
hate go-kolwa < *-kodo- 'become intoxicated': extension of meaning iron F2Ic jisiInza F2Ib gisirnza 'the one which slaughters'? < *-cInj- butcher'?: unique. by derivation
mud, mire teembe EJ40-tembe: borrowing one from the other, or from same origin?
sell go-jiinja any relation with Thagicu ku-endia?
shore, short (vi) go-ŋoola (onomatopoeic?) (Thagicu-ŋora, -norota; Luhya xuŋorela: EJ25 - oroota; South Rutara ku-jorota; F24 uxu-jota ${ }^{\text { }}$, Corridor uku-ŋoota; <*-gona: phonological innovation? Or is it a loan fro m Nilo-Saharan * juur?

[^77]fortoise F2Ic gulumaadi, F21b gummaadi < Barbaig gumald: borrowing (cf PB *-kudu 'tortoise')

The connection of JinaKırya with Luhya, East Nyanza (EJ40) and Thagicu languages raises serious questions of genetic affiliation. How much should a language share features with another for them to be regarded as genetically close, if first hand evidence is lacking? How can borrowing and genetic relationship be isolated if a pair belong to the same group typologically? The answer here lies in the employment of a multiplicity of evidence rather than relying on one form of evidence alone and elevating it to a final answer. For example, seed (expecially edihle, hot for planting) F21c ndete E46 ndetele; E125a entetele (also occurs in Zambia as -tetele: accident or common origin? (Ehret. p.c.): EJ45 chantetere: EJ401, EJ42. EJ43, EJ45 entetere points to zones EJ and E origins because of the more elaborate forms there whereas in F21c the form is reduced. This is one indicator of source and origin

This grouping can be termed 'traditional KISukuma' since, when that name is used, it is those dialects which are featured (although it by no means suggests that they are the only dialects forming KISukuma). Out of the 13 words, 4 are unique, or $31 \%$. The rest, or $69 \%$, are areal, shared with other languages and language groups.
(144) Unique vocabulary (4 words)
ahclomen, helly. stomach juumbr:
follow-koußija
pit, hole F21a, F21b icoongo, F21c Icoongo
spoil (a chitd by pamperings) -gegela
(145) Areal vocabulary, derivation, morphological innovation and borrowing ( 9 words)
breavi (of a woman) F2 Ia, F2lblo-noeno, F21c IU-neone (North Nyanza) fondo: Thagicu Joonto; (Chaga) nodo: borrowing < E (credibility of the $\beta$ aKaamba and other clans in BuSukuma (Itandala 1979)? Common origin in the past since fonto/תondo is a Thagicu word? (Nurse 1979b:553)? Or is it a loan from non-Bantu languages: < Kamdang -tono (sg), ano (pl) 'breast'? (Stevenson 1991.351)
great, hig, powerfil-taale unique creation or semantic shift < Rutara -taie 'lion'?
hard-diimu (EJ40) ki-difu
in from of $\beta \mathbf{u}-\mathbf{t o o n g i} / 23 c$ (Seuta) nonge, N10 ku-longi?. P 10 nungr
kneel-iuja Thayicu -turia ndu/maru, (EJ40) -furya makoti
mourning j̈రणŋgo (any relation with Corridor impungo, 'mourning'?)
pig noumba (any relation with (G50) mtumbi, 'pig'?): unique creation or areal vocabulary'? pipe (tubaccon)' le-seke/lu-sege unique creation, or < *-cege 'horn', or borrowing: < Proto East Victoria Bantu (EJ40)*-s\&k 'beer straw' < Proto Kalenjin *s\&k- beer straw' (Ehret 1971:98, 130)?
lomorrow atoondo (why not nhoondo?) EJ25 mtondo; (Seuta) momtondo, Corridor mutondo: borrowing from M ? Or inheritance from a common ancestor, but not Bantu? The formation of a prenasalized stop after the prefix mu-in KiSukuma tollows a regular pattern which distinguishes the N prefix. But here the rule does not apply, perhaps to distinguish the word from three words of the same shape which are tonally the same as well, with low tones: -toondo 'type of wasp: locusts at hopper stage; flesh wound with a dictionary form of noondo ${ }^{19}$
"KIDakama has that word as isekee/masekee in Maganga and Schadeberg (1992). although the informant for this study gave nteemba which Maganga and Schadeberg mention in the vocabulary section as common in Tabora, presumably referring to SiGalagaanza, KiNyanyeembe, and KıKonoongo
${ }^{111}$ The topic of base words in JinaKIrya and in other Bantu languages is explored in Masele (1996). For instance, -toondo is a root which is not a dictionary form, because such a form is marked in the sense that it is not recognized by a native speaker's mental lexicon.
truk (of elephant) gkoondo (Sabaki). (Corridor) umkondo (these might be the only ones with an unambiguous lexeme ${ }^{11}$ like that in KISukuma).
urine F21a, F2 1b mine, F2Ic mine (North Nyanza) ma-ne, (Luhya) ama-nii Speakers from the same group, or some speakers from the EI group entered F21 and spread the word? Borrowing? This word is the only one where 'urine' and 'sperm' match with EJ16, while 'urinate' in EJ is different from urine'. To show the distance from EJ16/17 and EJ34 from each other, and EJ34 from F21 in this word, EJ34 behaves differently in terms of the vowel ending in 'urine', and the word for 'urine' and 'sperm' being radically different. On the other hand, EJI7 displays a different word for 'sperm' bujula perhaps because it might be a euphemism. For the majority of the languages compared, 'urine' is derived from 'urinate For instance, urine derived from ku-gala is -nali, while that derived from -sußaala is -su Another common word here for 'urinate' is ku-tunda, with 'urine' being -tundi, -tusi, -tunzi, -tuzi Tahle +20 illustrates this pattern in EJ16/17 and F21

Table 4.20 'Ulime' and 'sperm' in F2I and EJ16, E117, and EV3 4

| Word | F21ab/c | EJ16 | EJ17 | EJ34 |
| :--- | :--- | :--- | :--- | :--- |
| urine | m-iine/m-ine < ma-ine $i$ <br> ma-ine | ma-ijhe | ma-ne | ama-ni |
| sperm | w-ine/w-ine < BU-ine/ B0- <br> me | ama-ine agazala <br> bearing urine | bujuia | oßwehe |

wculk (icke at )-yeela F23a.b-yeela: Thagicu gu-cera?, (Chaga) ku-sela?: E65-ira ira? is it $<$ PB *-pit- pass'?
wall ndugu (EJ25) i-ndugu

[^78]From the foregoing, it can be observed that KISukuma shares more words with some members of Corridor. East Nyanza (EJ40) and Thagicu than with other groups. Such shared vocabulary in the unique set of lexemes with KISukuma is striking, given their present geographical distances, especially Thagicu. Four interpretations can be posited here. Firstly, it might be borrowing from them (Corridor, East Nyanza and Thagicu) (most unlikely for current geographical reasons). Secondly, some speakers might have originated from them and the newcomers were intluential enough to spread some words in KISukuma. This is a likely explanation, for recent historical reasons, especially with regard to Corridor, as explored in Chapter 5


- Figure 4.2 Areal frequencies between F21b/c and other languages

Thirdly, the languages, although they are different, might have borrowed from a common source. This is another possibility if, for a example, a powerful invader occupying a large area subjugated them together. Lastly, the possibility of a single origin, as proposed by Nurse (1999:20-1), that there was once a grouping Thagicu/F20/EJ, etc. which then split up is strengthened by Dahl's Law distribution among them, especially bet ween Thagicu and F21 Thagicu like Gikuyu and KISukuma share some important features linguistically which make them closer than KISukuma is to F22. In both F21 and Thagicu, 'return' is - jooka, -jooga -syooka, or in F2Ic, -kiliija 'rub' and -ogosa 'twist', noono 'breast' is -kiiधa, nondo and oko日a respectively in E55.


## e Figure 4.3 Areal frequencies between F21 and other languages

Nurse (1982:221. 1988:34) alludes to that close connection. Because of that similarity it suggests that they have at least two things in common, namely that their ancestors have been long separated from other East African Bantu languages and their routes of immigration patterns were separate.

Other important contributing sources are North Nyanza, Suguti (E)25), Seuta and Chaga as shown in Figure 4.4 below What do they suggest loans, or common history?

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+.2.1.2.3 KISirkuma - KIDakama - Sd(86%) (GDraNuzu - JitaKIDQa - KmmanaLukumat
KIDakama) KDiukuma2
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As a readjustment, the 'new KISukuma' or KiSukuma2 should include KIDakama, whie the plain KISukuma term excludes KIDakama in subsequent references. This inclusion of KiDakama is also supported strong by phonological evidence presented in Chapter 3 In this group. 3 words are unique ( $21 \%$ ), and the rest, $79 \%$, are shared, as shown below.
(146) Unique vocabulary (3 words)

```
elephamu mulr '2
give light to-twiima, (F21c -t1ma) (F21b, from PB different morpheme)
leone, go covoy-1Inga
```

(147) Areal vocabulary, derivation, morphological innovation and borrowing (11 words)
heads $\beta \mathbf{0}$-sal0 (F23a $\beta$ usal0, F23b $\beta$ usalo): EJ40, EJ25 ußu-saru; (DJ60) -saro: (Seuta). East Ruvu, (N10) usalu; < East Ruvu? Distribution concentrated along the central part of Tanzania as if the word is coastal, acquired during coast-hinterland long distance trading, then, just spread to EI25 and E140, probably via the KISukuma speakers deny. refuse, say no -lema Seuta. (East Ruvu) -lem(el)a fly (vi) -lala (North Nyanza) -papala?, (Rutara) -halala? Probably loanword from Cushitic? hand. lefi lumoso (only one sub-group with class 11 marker IU- in F) increase (vi) -kwilla (Luhya) xu-xila?, (EJ40) kukera? semantic innovation < PB *-kurd'go up' as in Kiswahili -kwea < PB *-*-kUed- 'go up'?
tend, horrow -laanda (EJ40)-randa

[^79]medicine, remedy $\beta \mathbf{\sigma}$-gota $G 50 \mathrm{~m}$-gota, Corridor mu-kota. G60 (u)mu-goda, u-goda. (NI0) goda (name for 'tree', -kota in F31a/F3Ib kyota/ma-kota: F33 mooda; Barbaig geta (sg). gedig (pl) with DL: widespread Bantu word.
sick -saatu, -saadu (F21c), < -saata 'be sick' EJ24 ku-saaswa be sick' < -saata/saada < F21? < Barbaig miyand 'be sick'?
squal-itoonda, -1tounda (F2|c), (North Nyanza), (EJ40) -sundala?
suht, stuntight, ccaytime IIrmi (Chaga) idime? < Alagwa +ehemi < Proto West Rift -limi (cf Western Lakes (D40, DJ50, DJ60) -lemi creator, maker'? (Schoenbrun 1997$)^{13}$ EJ45 omwi?. E611 mwi?, P14 lumu?) (See Nurse 1979b:518)
take in from rctill -voßa, F31 kw-iyưwa; F32b-oova: Corridor u-kuuwa

East Nyanza (EJ40) is the single most important group at this level. Four words out of the 12 areal vocabulary, or $29 \%$, are found in that group. This count exceeds the unique innovations within F21/F22b, suggesting that areal vocabulary is the norm rather than an exception. Such areal influence highlights the fact that the tree model alone is not appropriate in accounting for lexical inheritance. The non-Bantu languages are represented by Alagwa (Cushitic) and Barbaig (Southern Nilotic) of the Datoog subgroup. The words from these non-Bantu languages suggest that some of the unaccounted for words like -pulf (moli) might

[^80]

* Figure 4.4 Areal frequencies between F21/F22b and other languages
come from languages like Hadza or Sandawe which seem to have been borrowers only, a situation which is not convincing.

The area is characterized by a convergence of various speech communities, contributing their vocabulary in turn to each other. Hadza and Sandawe should not be any different. unless there is a special reason why not.
+.2.1.2. + KINyamweesiproper (Nz) (84"\%) (KiNyanyeembe - KiKonoopgo - SiGalagatara)
These three dialects appear to form 'KINyamweezi proper', since KIDakama does not behave as closely to these three as expected. In addition, KINyamweezi proper is not
homogeneous. It has its internal sub-divisions too. When KiNyamweezi is mentioned subsequently, only these three varieties are meant. The unique creations are three words, representing $12.5 \%$, while the areal vocabulary accounts for $87.5 \%$, or 21 words.
(148) Unique vocabulary (3 words)

## clance vi -saapa

walk (ctke a) -yuumba (F22b), not indicated in F22d) (cf F21c nwryuumba shifting abscess, usually in gums, perhaps due to periodontitis'
weight ( $\beta$ ) $\mathbf{0}$-ti(i)mbu, $\beta \mathbf{0}$-timbe, (F22b $\beta$ utiimbu) (cf F2lc -tuunga matiimba fasten the tendons of an unruly cow or castrated bull by adding some weights like short logs in order to slow down its wild nature' < F22?)
(149) Areal vocabulary, derivation, morphological innovation and borrowing ( 21 words)
beads waambo F24 waambo; G60 -yambo, M20 uwaambo; M30 inambo, amambo; Rufiji Iwambo
beal -guma Corridor ku-kuuma? borrowing, because the voicing of/g/ and change of PB *o to /u/ in F22 is surprising if the word is from PB *-kom- hit with a hammer'. No motivation is justified and this word cannot be inherited from Proto Bantu.
carry, comvey -soomba F22b, F24a, F25-soomba; Luhya xu-soomba, EJ24 ku-somba clephant n-zovu (F22e n-zo $\beta \mathbf{u}$ ) (F23a/b) DJ60, M10/M20-rizovu: loan from either DJ60 or M10/M20, because PB ${ }^{*} \mathrm{gu} \rightarrow / \mathrm{vu} /$ is not regular in KINyamweezi.
forget F22a, F22e -laßila, F22d -laßrila (F23a, F23b kulaßiIla; F10 kulaßilila): unique creation, and then spread to those Zone F neighbours?
great -hanya (F22b; not in F22e): (cf G67 mhaja in ndombo mhaja elder brother') unique creation and a loan from F22 in G67?
hippopotamus -tomoombe (F22b, F10), (F22e-tomombo; F33 -toromondo (Ehret (p.c.)) (F22a not sure) i-tonoombo(F24a), n-tomoombo(F24b): [M10]-ntomombo: unique creation by F22, and F24, and M10 seem to have borrowed from F22. Rufiji-Ruvuma -tomondo; F24a displays an 'imperfect' transfer where an alveolar nasal has been used instead of the bilabial. kidney m-fige (F22b, F10, F23a, F23b) M20, EJ24 -mfigo: < F23 or M20 ( PB *p $\rightarrow$ f) knee F22a i-yungo, F22e i-yunge (not F22d), F24a i-yUUŋgo, F10 i-juungo: DJ67 i-yuungo (P21 lilungo) < PB*-dungo. This is borrowed from elsewhere, like F10, since in F22 *dU $>|u|$.
kneel-sukaamba (F22b, F22a), -sukamba (F22e), tulaamba (F22d): M10 ukusukama: borrowing, with modifications: < M10? < PB *-kukam-? (cf G60-fugamilo knee', PB *ku $\rightarrow$ su as in KiKinga)
lean (hecome), grow thith -gaanda (F22b) M30, G52, G60, N10, P10, P20 -ganda
lie on one s back -laala kansaga (not shown in F22d), F10 -laala kansaga, F24 -gona kansaga. Borrowing the second portion < F24?
return -sußa F22d -s0ßa (F23a. F23b, F23c kusußa: F25 kUsuwa: F24b kUtuußa) EJ24, E125, F25 -suba; D25 subya: borrowing, < F24 kutuußa, spread to F22, then to F23 because limited distribution apart from Rukereße, Cilita, KiKwaaya and KiLega, which might have borrowed from SiSuumbwa?
scorpion ka-miina, F22e (also F10, F23a, F23b) ka-mina:EJ23, EJ24. M10 ka-miina: [DJ60], F24 i-mina: < M10, and then through F22, spread to others'?
vir mukaaga (F22b. F24, F23a, b,c, F10): [DJ60], Rutara, North Nyanza, [EJ30], mukaaga: borrowing: < F23? < Rutara
spoil a child. pamper -seneka (not indicated in F22d): [M10] ukuseneka
squat -suonzußala (not given in F22d), F24 kusunjußala: Thagicu -cunjumara: G62 ukusuunzumala?. M10, M22, ukusunsumala; G33 kususumala?
stutter vi -gugumila (F25, F23b) EJ23, G321, G37, G52, P21, kugugumila: E66 ukugugumila: E74a kugugumia;, EJ17 kuguguma?: E64-үuүuma; D165, E116, kugugumiza: G23 kuyuyumiza; DJ67 ukugugumiza; G31 cigugumo?: G32 cigugumiza?: G64 kigugumizi $<$ KiSwahili?
sum, sumlight lyoußa The absence of limi 'sun, sunlight', as in F21 suggests that these two related languages did not travel the same path if such a central object as the 'sun' is different. and they are so adjacent
sweet, pleasant -seemu. F22d -seeme F23a,b -seeme (cf F21c -seemu 'sour') < F23?
walk -ya <-ya 'go' < *-gi- go' (other languages with-ya 'go': F24 kUya: M10, M22. EJ43 ukuya): loan < Zone M.
wa// igelele F24a i-gelele, [F24] lv-gelele, M10 ulu-jelele < F24, especially F24b? If this is a loan from KIKIImbひ south (F24b), then F24 is interesting, because it has lost (or some speakers have), and re-acquired it from F22: i-gelele F22 $<$ F24

The other groups, languages or dialects which share one word with F22 are D25. DJ65.
Rutara, North Nyanza, EJ16, E17, EJ30, EJ25, EJ34, EJ43, Thagicu, E64, E66, E74a. G23. G3I, G32, G321, G33, G34, G37, G64, G67, N10, P10, P201, and P21 Although EJ16 and Ell 7 belong to North Nyanza, they display those words as individual languages in which the word was not found in the group as a whole.


## - Figure 4.5 Areal frequencies between F22 (-F22b) and other languages

When KISukuma2 (F21 + F22b) and KINyamweezi (F22a/d/e) are compared the sources of their defining vocabulary become strikingly different as Tahle $+.2 /$ shows. However, this difference is a matter of degree since it is measured by the total number of shared lexical innovations found in the sample used.

Table +21 Difference of mique vocabulary source between F2I and F2?

| Language group | Majority sources of areal vocabulary |
| :--- | :--- |
| F21 (KrSukuma2 (with F22b)) | (1) EJ40 |
| F22 (KINyarnweezi (without F22b)) | (1) M10; (2) F23a/b. F24:3 F10. M20 |

One factor which seems to play strongly here is geographical proximity. The majority of the sources tend to be adjacent or close enough, as in the case of KiNyamweezi and the M10 languages such as iCiPimbwe (M11), KiLumgwa (M12), and CiFipa (MI3), while EJ40 languages like iKiZanaki (EJ44) and its varieties like KiShaashi (EJ441) are close enough to KiSukuma.

## t.2.1.2.5 SiSiumbwa (Sy) ( 8 f\%) (SiSiloomho - SiYoomhe)

Lexicostatistically, the shared vocabulary percentage between SiSiloombo and SiYoombe (SiSuumbwa) on the one hand, and those two with KiLoongo, on the other, is $65 \%$, a rate which is not high enough for combining the two as one entity. The items shared are therefore entered separately as if F23c (KiLoongo) is not part of F23 (SiSuumbwa). Another important point to note here is that, while the SinaKirya and GinaNiuzu node has only 14 unique vocabulary items, KISukuma (13 words), KISukuma2 (14 words), and KINyamweezi (24 words). SiSuumbwa, made up of SiSiloombo and SiYoombe among other dialects, has 7.4 words which need attention. These lexemes are different in significant ways from those in F21 and F22, as shown below. But their sheer quantity is also indicative of the fact that such
significant quantity as a marker of difference in vocabulary is a pointer to a different origin altogether.
(150) Unique vocabulary (11 words)
heard ka-saku, lu-saku:
crow $/ 1$ m-baga (F23a), - $\beta$ aaga (F23b, F23c) do ku-gema
cfoor mu-zigo (F22d m(u)zigo) unique innovation?
embrace ku-buumbilila (F23c kubumbila):
hippoporamus n-guguma (F23c enguguma):
hunger bu-tame (F23a), ßu-tame (F23b):
jow bonc mi-laambo
out (go). go ctwcy ku-puuna
welk ku-tuumbagila: innovation, $<$ PB *-tambukwhat biinde

The unique words in F23a.b above are II out of the 74, or 15\%, and the shared ones account for $85 \%$ Such a small percentage of unique vocabulary in such closely-knit dialects as SiSiloombo and SiYoombe, compared to GinaNtuzu and JinaKriya (29\%), suggests an affiliation outside its own group to another, outside one where a relatively longer history with that group is indicated. Massive interference is also suggested
(151) Areal vocabulary, derivation, morphological innovation and borrowing ( 63 words)
afraid (he) $\mathbf{k w - o o \beta a h a ~ ( F I O ~ k u - \gamma o \beta a h a ) ~ E J 4 0 ~ - o \beta a h a : ~ d e r i v a t i o n ~ < ~ P B ~ * - y o b a ~ f e a r * ~}$ arrow m-wambi (F23a), m-wambr (F23b): DJ60, M10, Rutara, omwambi. (G61 uwudambi?)
ask for ku-saba (F23a), ku-saßa (F23b, F23c):Rutara, EJ16, EJ25, EJ30. EJ40. -saba; saßa. (EJ22 ku-faba)
bahoon, ape j-kobe (F23a), ŋ-koße (F23b), een-koße (F23c) [Rutara] - $]-k o b e ;$ DJ60, ig-
 and its people (related to their ( $\beta$ aKere $\beta$ e) totem? of WaMMbuwe from mbuwe 'partridge/francolin', as a name given to KeeMbuwe (F34) by the KiiRangi (F33) speakers because of the likelihood of descending from the same group before splitting?)
base of tree trunk i-ziinga (F23c i-ziinga) E54a, [M20] ifi-sigko; ici-sinko; E62e itinko
beer. liquor bu-sele (F2Ic ma-sele. F22d $\beta 0$-sele) EJ3I bu-sela; G32, G321, u-pele?: M20 i-pele? (cf EJl3 kaabwanjare *...marijuana"?, the connotation focusing on the effect of the liquor, 'like marijuana')
b/culder It-hago Rutara oru-hago/olu-hago; E16 aka-hago; DJ60, ulu-hago, uru-hago, agahago
branch of a tree i-tabazi (F23a), i-taßazi (F23b, F23c): (<EJ23 i-tabagi; (cf EJ13, EJ22. ei-taagi; EJ12, EJ21, DJ65 i-tagi; EJ11 ei-tagi; EJ14 ei-taji (loss of [b]?) (but Rutara normally has *gi >zi (Nurse 1979b) is it a loan from a common source which occurred when the languages with the word were still one, or is it a remnant of a proto Rutara word which was either borrowed by F23 (if F23 was not a member of Rutara), or was it retained in F23 as a member of Rutara because of an earlier split which was followed by relative isolation. suggesting that EJII-EJ14 and EJ2I-EI22 lost the $/ \mathrm{g} / \mathrm{l}$ and then re-borrowed it from a common source before they split, the fact indicated by the failure of the expected process undergoing *gi>zi? That EJ23 became isolated again from the rest of EJ20 much earlier and retained the full form as it was borrowed? also cf pole (thin) i- $\beta$ azi/ma- $\beta$ azi (F23c lu- $\beta$ azi) (cf 'branch' i-tabazi (F23a), i-taßazi (F23b, F23c) (cf EJ25a olubasi, E23 o-rubazi. M22 u(wanzi.M14. M2l lu-wanzi))
brohh, soup mu-fwa (F23c mu-fiwa): EJ23 umufiwa; DJ60 umufa
build (a house) kw-oombeka (F23c kw-oombeka) Rutara, E55-kw-ombeka; EJ3I xuxwombexa, EJ31c -yombixa/-xwombaxa (cf EJ44-yomboka: EJ441 okw-omboka: EJ402 kwombaka; EJ41 kw-umbaka; EJ25a -yumbaka?, EJ25b ok-umbaka?, EJ32 x-umbaka, EJ34yombaxa: and E46-oboka; EJ45 ku-oßoka)
huthock(s) i-heende (cf EJ22 lu-hende [luende] 'anus', but enio/binio 'buttock(s)', and F21 no 'vagina ${ }^{14}$. < PB *-nio anus'): borrowing? F23 adopting and adapting the word from

[^81]EJ22 as an opaque euphemism in the recipient language'). Also cf D25 mwende 'calf of leg', suggesting that -heende is 'a protrusion')
calf of leg m-fuunde (F23c em-fuundo): DJ67, Rutara em-fuundo; M3I ama-kundo: semantic innovation: < PB *-kundo 'knot'?
chin ka-saku DJ60 aka-sakusaku; unu-sakusaku; aga-sagusagu: This may be one of the important keys to understanding the affiliation of $\mathrm{F} 23 \mathrm{a}, \mathrm{b}$. Iconically, more complex is older, while less and simpler is younger, implying that the SiSuumbwa ka-saku is a reduction. indicating some earlier split from DJ60
climh, ascend/ ku-gegela DJ67 uku-gegela (remnant from DJ60, or innovation in DJ67 or F23a.b and spread to F23?
count kupeeta (F23c ku-peeta) East Ruvu ku-peta [Corridor] uku-penda (borrowing why not ku-heeta?)
crawl, creep kw-aavuula, (cfF23c kw-aazuula, F21c gw-aagula) (gu>vu vs gu >zu): M20. G51 ukw-avula; (cf EJ kw-azula, EJ23 kw-azura; EJ14 okw-ajura, EJ21 kw-ajula)
crocodile n-saambi (F23c en-saambi, F2la informant not sure)) [Rutara] ensambi, ensaambi/effambi
crown of headlu-tooto (F23a), $\beta \mathbf{w}$-ootooto (F23b), (F23clw-otooto) : EJ40 onw-oototi, N/4 lu-tutu: (F24 loo-looti?)
drizalc IU-naanagala, (F23b) ma-naanagala, (F23c lu-naa̧agala, F10 ku-fayala (vi)): M10-mvula ya ku-nagala (cf M31 akanajafula < nia -fula 'rain defecating') (haplology in F10 and M|1/12?). borrowing, or genetic affiliation?
elephanif n-zova: DJ60, Corridor (cf F23c, EJ23, EJ24 en-zozu, < en-zogu < *-jogu) Morphological innovation when viewed from F21/F22 angle: gu $>\mathrm{vu}$
forget ku-laßIla (F10 ku-laßilila): [North Nyanza] kwerabira; E125 oku-labilwa, ku-rabirwa; N14 kulibalila?
fork, bifurcation n-saaga, n-saga (F23b); (F23c en-saga): EJ41 in-zago. In most of the comparative lists, the item was one of the least answered, showing its obscurity to most of the informants.
grain (of cereal) ka-zumo (F23a), n-zuma, luz-uma (F23b); (F23c lu-zuma): Rutara lu-zuma/oru-zuma, en-juma, aka-juma
grantfuther gooko (F23a), guuku (F23b): EJ23 guuku; EJ24 guku: E5I guuka; [EJ30] guka; [EI40] Yuka/guga: Borrowing? < F21 guuku because given away by the vowels? hair mu-sasI (F23a), mu-sasi (F23b): [D162] umu atsi;
${ }^{14}$ (..continued)
like KrSukuma, PB*-nio 'anus' and PB*-yo 'female genitals' are difficult to distinguish because of their phonetic similarity. It is not clear whether *-nio and *-yo were indeed separate words, given the potential for semantic shift. In JinaKirya anus' is IUfiindo, the origin of which seems obscure. Also compare Lußukusu kumsi (sg). kimisi (pl) "vagina vs oRuHaya omusino 'clitoris'
hare nakami (F23c Jakami): Rutara Jakami, akami; DJ61 bakame; (cf EJI3 orumi ( a huge hare'? <-kami?)
hute, clefesi ku-gaya (F23c ku-gaya): M12 uku-gaya
hide -bisa (F23a), - $\beta$ isa (F23b): EJ17, EJ40, EJ25, D25, E46, P22, EJ31-ku-bisa/-ku-ßisa: -ko- $\mathrm{Bisa}_{\text {; }}$, EJ17, P22 kubisa; EJ31 xußiisa: borrowing from any of these languages which have both Dahl's Law and no glottalization. The expected form would be ku-hisa rather than kubisa or ku-bisa, just as 'to pass' is ku-hita rather than ku-bita
hoe m-fuka (F23c emf-uka) Rutara em-fuka; EJ32 efuka
hump (of cow) i-baayge (F23a), i-ßaaggo (F23b): Rutara, EJ16. EJ17, i-bango, ei-bango in from of butoonzi (F23a), ku- $\beta$ otoonzi (F23b) (gi> zi) (ct F23c ßutoongi)
jecalons i-buuba (F23a), i- $\beta \mathbf{\mu} \beta$ a (F23b): EJ31 li-buba; DJ64, [Rutara] ei-buba, M10 i- $\beta u \beta$ a, DJ65 i-fuha?: M20 uwu-zuwa?
king mwaami (F10 mwaami, F24 u-mwami ${ }^{15}$ ): DJ60 u-mwami; Luhya o-mwami knee/ ku-sika sivi (F23a), ku-sika sivwi (F23b) G31 ku-fika?; (cf EJ2I ku-teka; EJ22 kuteeka): unique creation or areal vocabulary ?
knife mwaambi (F10 kaambi/twaambi); EJl6 a-kambe: M1I i-caambi: DJ66 in-tambi?
leak, ooze ou ku-vwa (cf F23c ku-zwa) -dua > -vwa: DJ60 uku-va
lend horrow ku-tiizya (not used in F23a); F23c ku-tiiza). Rutara ku-tiiza, DJ60 gu-tiiza 'lend'/gu-tiira 'borrow' (cf DJ67 uku-liza; EJ22 ku-tiila 'borrow'. EJ25a oku-lisya)
lcopard g -gwe: E62f g -gwe; North Rutara, [Luhya], DJ60, - y -gwe. Although this lexeme is listed in Guthrie (1967/1971) as a Proto Bantu form, the presence of two proto-forms *cubr and *-gue for the same entity leopard' suggests that the origin of languages after the first one (if ever there was one), is essentially multigenetic, on the one hand, or. it is an innovation after Proto Bantu spread over a wide area, on the other. But one lexeme may also mean only one type of leopard among the many species of the animal. and therefore the two items may not be referring to the same thing.
lost (get) ku- $\beta$ ula (F23c ku-bula): Rutara, EJ25, DJ61, EJ16,-ku-bula/-ku-bura: [EJ40] -bura/- ßora; Thagicu ke-Ura/ ku-ura: semantic innovation, $\angle \mathrm{PB}$ *-bud- lack' (cf PB *-bud'become plentiful or numerous')
love, wan ku-siima (F23c ku-siima): EJ3 Ic -siima; DJ66 ugu-fima
Itug ma-haaha (F23a), ma-haha (F23b, F23c): DJ60 iri-haha/ama-haha: EJ43, Rutara-haha (ki-haá), E142 amaa, (<-papa as in N11 li-papa, N12 ma-papa, M24 i-papa) (ct G62, G63 ilihafwa: G35 -hafwa; M23 ama-pafiwa; G64 ma-pafwa; M201 u-pafwa; M22 e-pafwe/wapafwe, M21 -pafwe/ ma-pafiwe; M14-pafive; P21 li-pawa; G65 ama-haswa?
migrate ku-fuluuka (F23a), ku-fuluka (F23b, F23c): Rutara ku-fuluka/ku-furuka (cf EJ17 kubulika)
monkey 0-keende (F23c een-keende) Rutara ej-keende; DJ64 ij-keende moon kw-eezi (F23c kw-eezi) (ku-prefix): DJ60, Rutara -kw-eezi, EJ25 o-kw-esi monutain mu-gala: G65 ikidu-gala

[^82]mourning naku: EJ23 e-naku
might bw-iile (F23a), w-iile (F23b): [North Nyanza] o-bw-ire; (cf kilo < *-yid-get dark*. from same root?): extension of meaning by derivation.
o/d -laala/n-daala: G23 m-daa 'old person', G321, G67, N1I -lala
parcht mu- $\beta$ usi: ( BS ti>si): G63 mu-busi/ba-busi; EJ25, E134 omwi-busi <*-but- bear (child, fruit)'
pig m-punu (not F23a) (F23c eem-punu): Rutara em-punu
porcupine li-Лogote (F23a), i-nogote (F23b), e-תogote (F23c): [Rutara] eki-תogote, enogote; DJ60 iki-nogoto)
potato (sweet) i-ziizi/ma-zizi: < Barbaig kasisa?
pour cavay ku-seesa (F23c ku-seesa): DJ60 ku-seesa/gu-seesa: Rutara ku-seesa: ku-feefa)
quiarrel vi ku-soola: F10, F22d ku-soola: EJ16 ku-sola or < F10?)
reffise, soy mo, cleny ku-kema: G321 ku-kema
return ku-sußa (F23c ku-sußa) EJ24 ku-suba, EJ25 oku-suba, D25-subya
river mwiiga: North Nyanza (EJI5 mugga (LuGanda: iC $\rightarrow$ CC), E116, 17 mwiga); [Rutara] o-mwiga
salt mwiinu EJ3Ic -yinu ${ }^{16}$. [G60], P10 u-mwino/u-mwino: G67. N10. mwinu saticted (be), have enough to eat for drink) ku-haga (not given in F23b), (F23c ku-haaga): [Rutara] oku-haaga; [DJ60] ukuhaga; gu-haga/gu-haaga seven musaamvu: North Nyanza, EJ34 musamvu ${ }^{17}$ (Cf F23c musaanzu; Rutara EJ24 musanzu; musanju; E122, [DJ60] mufaafju) (cf EJ31 musafu) (An interesting case is M32 sebeni ${ }^{1 \times}<$ English 'seven')
vicrip (bc) ku-ugiha (F21a, F21c, F22a, F22b, F22c -UUgiha): EJ41 kw-ugiha: [EJ40] ok-ogeha'-oyeha; E46-ogeha, E51-vhIga, E53 ku-gia (cf E54b ku-giba, F24a ko-0gIpa)

[^83]shiver ku-zuguma (F23c ku-zuguma, F2 1a ku-zuguma): [Rutara] ku-zuguma, kuzugumira; DJ66, DJ67 ukuzuguma; (any connection with DJ62 kugugumiza <-guguma?) (cf also EJI5 kujugumera (EJI2 kutukumira? (tu >zu? or gu >zu? Why not gu $>\mathrm{vu}$ as a regular retlex in F23?)
stail mu-fweelo: DJ60 iki-fwelo/igi-fweera/gifyeeio
spitile ma-swaante: Rutara ama-cwante/ebi-cwanta/ama-cwanta
sprecod, smectr on ku-siiga (F23cku-siiga, F21c gufriga): Rutara, EJ15, oku-siiga; DI60 uku-siiga/ugu-siiga
squct ku-sukumala (F23c ku-sukumala): EJ23 ku-sukumala (cf EJ34 oxu-socomala)(cf squat in (149) above).
stick n-koni (F23c een-koni): DJ60 in-koni; Rutara en-koni
stone i- $\beta$ aale (F23c i- $\beta$ aale): Rutara. [North Nyanza] ibaale: ei-baale/ ei-baare:: EJ3 I c-baale: EJ34 li-bale
take clothes off kwaambola:[DJ60]ukw-ambula/kw-iyambura, EJ16 okw-eyambula, EJ43b ok-ombora: [Seuta] ku-hambua; (EJ31 xu-xwiyabuula: EJI7 keeyambalya?)
thicker i-sala: EJ43 egesarara, EJ42 egesasara?
thigh of an atimal si-taambo (F22b ku-taambo, F10 i-taamba/ma-taamba? F3lakI-taambo 'thigh of human being') E55 U -tambr?
today $\beta \mathrm{u}$-leelo (prefix) innovation?
fortoise fulwe (F23a). fuulwe (F23b): DJ67 fulwe; DJ66 fugwe? innovation, <*-kudu
weath chil/ku-syuusya (F23a), ku-suטsya (F23b): G61 uku-tusya?. [M20]uku-tuzyaa? G62 uku-suufya
which ye tyaani: M14 -cani;(cf M15, M22 icani 'what'), G33 ya kwahi? G36, G37 coni? whistling lu-guunzu (F23a), IU-guUnzo (F23b): D25 ka-gonzo
who ende:DJ60 inde (cf biinde 'what' in (150) and KiSwahili nani 'who' and nini 'what')

In Figure 4.6, not all languages are included. There are dialects, languages and language groups of one word shared with F23a/b, namely, Barbaig, E54a, E62E, P22, E62f, North Rutara. Luhya, Thagicu, G65, M14, G60, P10, N10, F22, E53, F21a, EJ15. Seuta, F22b. F31, G62, M31, G51, E74a, DJ62, M12, EJ32, DJ65, G31, M11, G23, N1I and G63

From the qualitative results of SiSuumbwa in relation with other languages. some scenarios can be proposed in the determination of its origins and evolution, as a function of contact with


Frequency of iexical occurrence
Figure 4.6 Areal frequencies between $\mathrm{F} 23 \mathrm{a} / \mathrm{b}$ and other languages
other speech communities. Some proposals are necessary because the results obtained from analyzing the vocabulary cannot reveal the "truth" embedded in them unless they are interpreted correctly.

While the historical events creating languages remain the same, with the enormous gaps in knowledge that we have, only flexible interpretations of what is available can approximate what really happened. With this caveat in mind, some three scenarios are considered

Firstly, the monogenetic approach can be taken by assuming that the affiliation of SiSuumbwa to some of its neighbours sharing its vocabulary is genetic. To weed out the non-immediate contenders, a process of elimination can be applied using the numbers obtained in the results. EJ25 features as prominently as F10 and EJ16, indicating distant affiliation. The major dilemma here is the cut-off point and the criteria for judging whether a higher number of shared lexis necessarily means close genetic affiliation especially where all candidates are based on innovations.

The answer is a qualified affirmative because deep time depths may be shown by lower counts as more words are lost and replaced, while higher numbers may either indicate common history or only a more recent relationship based on heavy borrowing. Swadesh (1955:129) recognized the problem of such modifying factors in lexicostatistics. For instance, there may be heavy borrowing without any immediate genetic relationship, as in the case of English where the vocabulary from French is about $70 \%$. Because all counts are based on innovations, all counts of similar innovations are supposed to be important, either as indicators of genetic relationship or borrowing. To isolate genetic affinity from similarity due to borrowing, the second scenario below can be invoked, so that loans remain loans only. When regular phonological, morphological and semantic overlaps occur between two or more languages, they normally point to a common history between them. Since lexical innovations alone are not an absolute measure of affiliation when no other facts are known, the higher numbers are reasonable predictors of genetic affinity when other criteria are considered to
support those numbers. In terms of numbers alone then, the best contenders as the genesis of SiSuumbwa remain Rutara and Western Highlands. As a hypothesis, only Rutara and Western Highlands (DJ60) can remain as possible origins of F23. With monogenesis, other approaches can be used to eliminate one of them so that only the most consistent group remains. Innovations on their own cannot do that. The phonology can help by picking the most salient and diagnostic innovation(s), as shown in Table +.22 below. One of the single most important pointers is the reflex *gu > vu in SiSuumbwa and *gu > zu / ju in Rutara, and which eliminates Rutara convincingly as a tree from which SiSuumbwa branched. This also helps classify KiLoongo with Rutara.

Tahle t. 22 Phonological affinty hetween Rutara. Suguti. Western Hightames, KiLoomgoand SiSinambwa from gualikative evidence

| Innovation <br> based on | Rutara <br> (EJ21/22) | Rutara <br> (EJ10, <br> EJ23/24) | KiLoongo <br> (F23c) | Suguti <br> (EJ25) | Western <br> Highlands <br> (DJ60) | SiSuumbwa <br> (F23a, <br> F23b) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| *tu | c | c | c | fu | pf | s |
| *du | ju | zu | zu | fu | vu | vu |
| *gu | ju | zu | zu | fu | vu | vu |

In this first scenario, similarity and difference within one large group is displayed. depending on individual language history. The effect of contact with other languages might have resulted in heavy or light borrowing from them depending on the nature of the interaction with each group. Borrowing from other languages as a marker of linguistic interaction is a
phenomenon which is the norm than an exception, as Andersen (1989:1) comments with regard to the non-linguistic factors in linguistic descriptions. He notes that what are normally called non-linguistic factors to innovation are actually part of the linguistic process. Divorcing contact from regular linguistic realities can only be unfortunate. Many lexical or phonological sources in SiSuumbwa, for example, simply show how dense the interaction networks were as a linguistic fact

The second scenario suggests that there was a core of F23 speakers, as a 1 language or dialect. Later, other speakers from other languages or dialects, especially from the vicinity (DJ. EJ, some F20, M10, M20), among other groups, contributed some items depending on the nature of their contact with F23. This means the other groups joined SiSuumbwa as semi-autonomous, co-ordinate groups which maintained their identity, but at the same time identified with their host, resulting in mixed codes. What the original status of F23 was remains the question, because it can be one of F21, F22, E110/20, D150/60, M10/20. or none. This scenario is plausible given the fact that speech communities are not normally hostile to each other, so that it is possible to acquire vocabulary from languages in contact Between them, one contributes more dominantly than the others as a matter of degree only. The influence in such a situation becomes mutual, hence the shared features of innovation

This scenario implies multigenesis in which a language is composed of several independent languages from the same family (Bantu) brought about by the cooperation of different people
speaking different languages and whose identity can only be revealed by a qualitative lexical analysis. It is the nature of a meiting pot like North American French and English: sailor's English and français maritime. This is a situation which creates a unique mixed language characterized by co-ordinate linguistic features drawn from the contributors, the prominent features of one being a function of the perceived relative importance of the contributing language. With this interpretation, simple monogenesis is discounted in SiSuumbwa. Languages are spoken by people with particular histories, values and attitudes which impinge on their other social institutions like language. The more open their cultural systems, the more mixed their languages, and vice versa. SiSuumbwa illustrates that two or more speech communities can merge not in an automatic adversarial superior-inferior, conquerorconquered relation. but as coordinate contributors to a whole. It is a language created by convergence rather than one with diverging dialects from a single proto language.

The third and final scenario is that of a common ancestor between F23 and the others so that DJ60, EJ10/20, EJ25, EJ40, M10 and M20, among others, are descended from the same proto language, the shared innovations being earlier forms in the proto language before they split, as a case of divergence

These three scenarios are not impossible. As has been pointed out in Chapter 2, much is still unknown in these languages. But as a working hypothesis, SiSuumbwa is affiliated to DJ60 as the high frequencies and limited phonological facts show.
t.2.1.2.6 Qnadituive evidence and patferns in KD'ukuma, KINyannveezi and SiSmambwat The linguistic picture from the shared innovations between F21, F22 and F23 indicates that, not only do F21 and F22 share different innovations between them, but also that they show the same difference from F23, as shown in Table +.23. This supports the notion that they do not come from an immediate linguistic node, with similarity of high retention rates between F21 and F22 accelerated by inter-borrowing. This explains why only F23 has BS and consistent glottalization, only F21 F22b have DL and voiceless nasals, while F22 has neither, although traces of those processes are found in all 3 groups because of inter-borrowing.

Tahle 4.23 Difference of mique vocabulary sources between F21. F22 and F23

| Language group | Majority sources of areal vocabulary |
| :--- | :--- |
| F21 (KISukuma) | (1) EJ40 |
| F21 + F22b (KISukuma2, with F22b) | (1)M10/M20. Thagicu. EJ40 |
| F22 (KINyamweezi, without F22b) | (1) M10; (2) F23a/b, F24, (3) F10, M20 |
| F23 (SiSuumbwa, without F23c) | (1) F23c, (2) DJ60, (3) Rutara |

To illustrate this question of inter-borrowing, Table 4.23 shows that the source of M10/M20 vocabulary might be F22 through F22b, while the source of Rutara lexis in F23 might be F23c (KiLoojgo), a Rutara language whose speakers have been adjacent to SiSuumbwa speech communities for an unknown number of years. The influence of KiLoongo on SiSuumbwa is indicated by the highest number of shared words ( 33 words) out of the total 76 . The presence of E50 (Thagicu (Central Kenya)) vocabulary in F21-F22b indicates a genetic
affiliation which is also supported by the presence of DL and 7V in Thagicu, as in F21+F22b.
This possibility is taken up again in 4.3

## +2.1.2.7 (/l (83\%) (KDnaUshoola - Korillaamba C)

According to the vocabulary items available to the author, the 13 lexemes shown in (152) are unique to $\mathrm{F} 3 \mathrm{la} / \mathrm{b}$ at a percentage of $42 \%$. This suggests a long common history since the unique count is one of the highest, if not the highest, in all cases of unique creations within dialects. The rest are shared by other groups, representing $58 \%$. Such shared items suggest interaction of either F3 la/b speakers moving to other places and then coming back to F31. or those of other languages coming into contact with F3I speech communities. Another scenario is bidirectional movement of speakers as a sign of mutual linguistic contribution and enrichment.
(152) Unique vocabulary ( 13 words)
axe m-poopo
heer n-tolu (cf F24 ntril)
day lu-toondo (cfF21c ntoondo 'tomorrow')
chrink k $\mathbf{k - k o p a}$
hair lo-tuumbi
press out (oil, seeds, sugar cathe) kU-kasima
push ku-guma
valt mo-leenge, F3Ib mul-eenge (F24b mu-leenge) (cf G35 m-kere) where F24b suggests borrowing from F31afb because of the occurrence in one dialect only. while the vowel $/ \mathrm{u} / \mathrm{in}$ the prefix of F24b is also suspect, given F24's high rate of accurate reflexes from Proto-Bantu shiver ko-kakuma iconic creation as a group's way of perceiving shivering like animal sounds in various cultures, which, though come from the same animals, are perceived differently by different people)
swiser mu-goli. F31b mu-guli (cf G42d ki-goli 'young girl')

```
shutter kU-\intekema, F3lb k0-sekema
fokloy na n-teende (cfG52 na-lelo, with prefix na- with, of as in F31a. F31b: any relation?)
woman mo-suUngo/ a-suOngu
```

(153) Areal vocabulary, derivation, morphological innovation and borrowing (I8 words)
hrother, relative montowa, by derivation < PB -ntu 'person'?
hand (lefi) j-kIgI, F3lb kon-kIgr (F24 mu-kigi'9): N1I kuman-gigi, G60 ku-nigi/-gigi/-nigi/-nigi; [G50] ku-figi/m-kii, P21 kuf-ciji;(cf [P10] kun-kiya/-kiła
juw (honte) n-zagasa. F3 lb n-zakasa (F34 n-kaasa)
prominem (be), put oul ko-punila dissimilation of two consecutive syllables with bilabial onsets: <*-pum- come/go out or away'
puff adder kI-su0pa, F3 lb kin-s00pa E53 ki-ua? (in Meru Imenti, *p $>0$, but not $\mathrm{s}>\varnothing$
(Nurse 1979b), making the word a possible match)
quench, extinguish ku-dibya (<-dimya < *-dim- 'extinguish', (but why in KInILaamba should this be ${ }^{*} \mathrm{~m} \rightarrow \mathrm{~b}$ and ${ }^{*} \mathrm{di} \rightarrow \mathrm{di}$ ? Is it morphological innovation?
sharp (he) kw-iyoupika, F3lb ku-yUpika E51 -uhiga (<-yukipa, metathesis)
sil kU-kikalaansa, F3lb kU-kikalaansa EJ42 go-ikaransa (cf E54b gu-ikaranӨi, E54a gukaranӨi; E52 gw-ikara nӨi; E55 kw-Ikala nӨr; E5I i-karaӨr, E53 ku-kara nӨr; M25 a-xale pansi, G23 ku-ikaa fi; G36 kukala hasi; G52 kw-ikala pasI; G66 ku-kala pasi; M22 ukw-ikala pansi; M24 ku-hala pasi (<*-yikala 'stay' + *pa 'at' + *-cI earth/land') (note: Standard KiSwahili (G42d) -keti < Northern KiSwahili -keti < -kala iti sit here (on earth)
 e-koлjo)
spoi/kuyonoona (F24-noona ${ }^{21}$ ): [J60]-kw-onoonekala/-kw-onoona; EJ17kw-onona: M10 uko-onona;

[^84]spot, speckle -dyoa/ma-doa (focus on the singular form especially where palatalization is common ${ }^{22}$ ) (cf languages with non-palatalized forms: G24 -doa, G32 doa/ma-doa; E62d -dowa/ma-dowa: EJ403 ri-dowa
stranger, visitor, guest mu-geenda [G60] umu-geendzi; (< PB *-geend- go' the one who goes (or passes, does not stay)') (cf EJ34 omulu-kendwa; G35 u-menza?) )
suffer, bear patiently ku-gigimilya, F31b ko-kIgigimilya (cf F2lc gw-gimilija 'endure') neect ( m ) -yIla (cf F21c gouyrla 'to sweat')
thigh (humath animal) kIIga G24a kiga 'human thigh'; [P20] ciiga/ civa/sija 'human/animal thigh
tomato n-tole (F2 Ib i-tole/ma-tole; F22d mu-tole/ma-tole) DJ67 i Bi -tole (vya mbwibwi)
tree kyota/ma-kota (widespread in east Africa, see Nurse 1979b) (ikota (Class 5 ) $\rightarrow$ kyota (regular palatalization in KInrLaamba)) (cf $\beta \mathbf{0}$-gota 'medicine' in (147) in KISukuma/KIDakama as an areal feature which can also be observed in Teth/e f.9) up, above kyaafa, F3lb kyaania (F24 kv-caaja) G60 ku-kyaja/ku-caaja/ ku-faja; E74a ku-caлa, [East Ruvu] ucana/ucaja/ucana? (cf M20, M30 ku-mwana/pa-mwafa.

From Figure 4.7. F24 and G60 sharing 4 words each with F3la/b suggests a certain historical relationship, of either contact and mutual borrowing only, or genetic affiliation. On the other hand. as in other cases above, the presence of F24, G60 and all the other languages' vocabulary in F 3 la,b might also suggest cross-immigration into and from F 31 by speakers of other languages and their continued use of some items from their language. This is often the case, especially at the edges of different speech communities.

[^85]

## - Figure 4.7 Areal frequencies between $\mathrm{F} 31 \mathrm{a} / \mathrm{b}$ and other languages

## +2.1.2.8 KIKImh U (Km) (82\%) (KIKImhb U North cond KIKInnh U South)

(154) Unique vocabulary (13 words)
hlordi caaji (F24b) unique creation as a definer of F24 door y -kiII (F24b) (cf Proto-Kalenjin kurk 'door'?): unique creation or borrowing? grass ma-saafje (F24a), i-saanji (F24b)
gruel, light porridge m-paapo
hoce i-silr (F24a), i-sißf (F24b)
$h u n / \mathbf{k v}$-guu $\beta \mathbf{a}$ (F24b) ( kv- $\beta$ eenda (F22a, F22e - $\beta$ eenda, found in F24a as inherited from PB as in E62e-binda, G37-winda, G42d-winda, G52, P15 ku-vinda)
lecff (of tree) i-titi/ma-titi (isaanji/masaanjı F24b)
navel i-wuumbu (F24a), piwuumbu (F24b) (cf F21c jißuumbu 'pubic area')
pregnancy mii-tuŋgo (F24b) unique creation, as a euphemism, literally meaning 'something which is wrapped, and therefore fastened safely inside', <*-tung- tie up' search for ku-puUga (F24a), ko-puuga (F24b)

## somhd, cry idoolo (F24b) unique creation, or from specific sound rather than generic. spil ku-tya matye stufter ko-tamaantama

The 13 words above, or $33 \%$, are unique to KIKiImbu, a high percentage which indicates that F24 and its dialects has a long history of internal cohesion. The areal vocabulary, at $67 \%$, shows the effect of neighbouring languages. The influence of Kinyamweezi is obvious from Figure 48 below
(155) Areal vocabulary, derivation, morphological innovation and borrowing ( 26 words)
hanthia -dooke (F21. F22-dooke) P15 ndoki < F22 < 21 (because of DL) < EJ? due to proximity
hark of a tree i-pata (cf F32 i-bada/ma-bada (F32a, c), I-baada F32b)) < Barbaig badacanda geta (geta 'tree') < Proto-Southern Nilotic *pertet 'bark (of tree)' (Rottland 1989:221)? or did Barbaig get the word from F24, and F32 got it from Barbaig?
hlood mu-gazi (F24a) F22a,b,d, e mu-gazi; F23a, b ma-gazi; N12 y-gazi borrowing <F23a,b because F22 has no inherited BS where * $\mathrm{d}>/ / /$; (cf caaji (F24b))
howsiring 1 j-gusa (cf 0gUsa, a proper name in F21): M21 lu-kusa lwa wulapwa: M24 ahakusa (spelling error from ama-kusa?), EJ23 omu-guha gubuta: $\mathrm{s}>\mathrm{h}$ ?
climh kU-taanta (cf F22d, F25 kU-taanda; F10 ku-taanda). unique creation, or is it only one type or way of climbing, an innovation which is common in all verbs of motion?
dance (vi) kw-iigeya (cf F32a i-Yeya; F32b w-IIyeya; F32c g-iyeeya 'imitate': borrowing: < F32?
deny kt-siita (F33 ku-sita, F34 o-siita)M31 ku-sita; (cf G61 usiti denial') (cf P25 kiw-ita?) <Proto-Southern Nilotic *Reqt ${ }^{33}$ 'deny, refuse'?
grind coorfsely kU-balaaga (F24a), ko-balaga (F24b) EJ25a oku-baraga, EJ41 ku-baraga: G6I ku-balanga; EJ22 ku-baranga; G62 uku-balaasa; G63 ku-baladzula; G34 ku-balaza; E54b ku-barar1a; P14 ku-balahya; (cf E61 i-barangata < PB *-pad 'scrape', e.g. as in M21 ukupalala? (cf G42d ku-paaza): borrowing: < G60?
grow (of plants) vi ku-leemba (F25 kul-eemba): unique innovation by metathesis, as an idiosyncratic development: <kulemba < kolema < kUmela < PB *-med- 'grow, sprout'?

[^86]hide ku-sweexa (F24b), ku- $\beta$ isa (F24a). The two words in the two dialects might be from two different sources, or from one source because of their irregular shape in KIKirmbu where there is no $/ / /$ deletion nor ${ }^{*} p>\beta$ as observed in the respective words: North Nyanza ku-kweka (cf DJ66 ugu-seleka; DJ67 uku-seleka; Rutara ku-seleka/ ku-sereka; ku-Jeleka/oku-fereka; and kU- $\beta$ isa: D25, E46, EJ31, EJ40, EJ25, F21, F22 - $\beta$ isa/-bisa; F23-ibisa (reflexive): borrowing: < Rutara and F21/22 for the two words respectively?
inf from of koß East Ruvu, N10 ku-longolo, ku ulongozi, palongolo, [M20] kwi-longolela; Seuta kulongole. See also G50. P15 kuu-longolu) (cf $\beta \mathbf{\beta}$-toongi in front of in (145) KiSukuma)
jenwhone ma-zakola (F24a) (F22e i-zakula/ma-zakula): [M10] i-zagula/ama-zagula unique creation, and a loan in F22e and M10 because of that phonological giveaway / $\mathrm{u} / \mathrm{in}$ F22e instead of $/ \mathrm{U} /$ ?
journey mu-sinjjo (24a logeendo) (F3la, F3lb mu-sinnzo, F3lc lu-sinnzo/n-siInzo, F32 mU -heenjo/mu-hiifjo): unique creation, and borrowing in F31 and F32<F24?
maize i-gaagwe/ma-gaagwe M20 in-gagu, aman-gagu/amagagu:
mother maayi (F25 U-maayi) E62d, [EJ40], G35, G61, M10, M20, [M30] EJ25 . umayi/maji: EJ31 mayii;
mushroom wiipwa (F24a). wIIpwa (F24b) [G60] u-wiipa
oul (go). go cavay ku-fuma borrowing: < F22?
potato-kafu (F24a) (F22 -kafu) borrowing: < F22?
sew ku-suma F22, [F21] [F23] [Seuta], G321,Corridor -suma: borrowing: $<$ Zone M and spread to $\mathrm{F} 21 / \mathrm{F} 22,<\mathrm{PB}$ *-tum-, as in F31 -tuma? (cf KiKinga: PB tu $\rightarrow$ su (Nurse 1979b:459; also Seuta: KiKinga as nearest source?))
sniff, smell out kU-tuca (F24a), ko-tuuca (F24b) : borrowing: < Alagwa tsu?ut- to sniff (See Ehret 1980:199)
vider n-suma/i-suma $\beta 0$-taanta literally 'weaver of webs' (cf DJ67 tanda; G35 tandabui; M21 etandawulwe): borrowing, from a language with BS, because KIKIImbo is expected to have -tuma instead of -suma $<$ PB *-tum- 'sew'. Name is derived from the spider's activity. take leave of kU-daahya (F24a), kU-daaya (F24b) (F22-daahya) borrowing: < F22, with DL. The regular reflex of F24 is like in F23 or F10 ku-taahya. In all the more than 100 varieties available for that word, only F22 has that word, and it is not well-formed in F24. In F21 it has connotations of 'bidding farewell' to a medical apprentice after graduation so as to practise on her/his own.
walk ko-ya (F22a, F22d, F22e): M1 I kuya ulwa mulu: EJ43b ukuya magoro: borrowing <F22, by M11, and perhaps EJ43b? < PB *-gi- 'go' (cf -ya 'go' in (149) in KINyamweezi proper (F22a, F22d, F22e))
wet (gel) kU-saapa EJ22 ku-Jaaba, Barabaig Jaba
word, affair mpola [M10] impola unique creation, then loan to MII/12? (cf KISukuma (F21) greetings: UlI mola 'Are you well?' Literally 'Are you a word?' that is. 'Do you have any word'' = 'Are you well?')
zehra n-sengete G63 i-seengele, G61 n-senjele, M24 in-se $j$ jele: borrowing: < Barbaig singiyed 'zebra')

The role of geographical proximity in lexical similarity is displayed well in this case of


- Figure 4.8 Areal frequencies between F24 and other languages

KIKImbu and its neighbours like KINyamweezi. Corridor-Nyiha languages (M20) on the one hand, and by the Southern Highlands languages like eSiSaangu (G61), and others, on the other. The farther away a language, the more unlikely the occurrence of shared items, and if such occur, then it suggests contact in the past or genetic affiliation. The F22 items are presumed to be mainly borrowed, because they skew the regular KIKIImbu reflexes. So far there is no known pressure of G60 over F24. The similarity therefore points to possible
contact in the past and present, involving constant interaction over a long period of time This is especially true because many languages share vocabulary with F24, including the following dialects and groups, which share one word each with KIKIImbe: N12, E123, G34, E54b, Rutara, East Ruvu, F22e, F31, Ej25, EJ31, Corridor, F22d. F10, F33. F34, M31. EJ25a, EJ4I, P14, G50, EJ40, E62d, M30, G321, and Alagwa

### 4.2.1.2.9 SN (8I\%) (Kriakuma2 - KiNyammeezi)

Out of the 21 words 5, or $24 \%$, are unique to KISukuma2 and KINyamweezi. This indicates a closeness which is significant historically, suggesting a genetic affiliation. The remaining 16, or $76 \%$ of the total. occur in other languages as well, although their forms may not be necessarily identical with those found in KrSukuma2 and KiNyamweezi (SN).
(156) Unique vocabulary ( 5 words)
affair. word mayo (F21) (<mu-hayo), mu-hayo (F22)
chase coway -peeja (F21); -peezya (F22) < -peela 'run', -peeja/-peezya 'make run' (rum peela (F23 kupela ${ }^{24}$, not given in F22d)
excape -pila ( not given in F22d)
secarch for -kooßa (F23a, F23b-kooßa), a loan in F23.
tick juundya (F21), g-kuundya (F22) (F22d Iny-kupa (not related)
(157) Areal vocabulary, derivation, morphological innovation and borrowing (16 words)
haboon g-gokv, gg-uku (F22e), g-kok0 (F22d) (F22a not sure) M1I ama-kuku; [EJ30] inguke; DJ62, [EJ25] in-guge; EJ40 en-goge/en-үułe E46 ŋ-goge (cf EJ32 in-guci)

[^87]hark of tree i-gola, i-goola (F2la), 1-gola (F21c); i-gula (F23) (F21b word not mentioned) (F23 < SN because in F23a,b gu > vu and F23c gu > zu); [DJ60] iki-gula: Corridor -gula/-cuula/iji-zula/ivi-zula; G64 i-cula; EI24 e-cula/el-yula (cf N14, P14 li-jola/ma-jola)
brother-in-lcw, sister-in-law y-kweela (F21) mu-kweela (F22) innovation by derivation<*kued 'marry, copulate' Literally, 'the one who was married,' or 'the one who copulates' to contrast ${ }^{*}$-kve 'relative by marriage' restricted to in-laws
 F23c lu- $\beta u u^{\prime} \beta$ ) EJ34 o-lufu: North Nyanza em-fufu? Derivation PB *-bu ashes' full (become) -okala (F23a, F23b -okala) loan to F23 because it is limited to $\mathbf{F} 23$ only. get. ohtaït -paandika (F23 -paandika, F22a not certain) derivation from PB *-pat- hoid loan to F 23 because regular process in F 23 is *pa $>$ ha
hump of cow l0-guku (not mentioned in F22a, F22b) (F3Ic lo-kuku: F32. F34 -kuku: Thagicu -guku/-Өuku, E74a i-fufu, DJ60 i-pfupfu/i-фuфu ) borrowing: < Barbaig hukta< Proto Kalenjin *yuvk (Rottland 1989), or < Ehret (1971:96) claims the source is Proto Southern Nilotic *yuuk (*yuik) 'cow's hump'?
listen -degeleka (F23b -degeleka; not mentioned in F22d) M11 uku-tegeleka: EJ25 tegeresya; EJ40-tegerera; E46-tegerya; (cf M20 uku-teyelezya; EJ3Ic -regidididia listen to ${ }^{\circ}$ (de Blois (1975), DJ66 ugu-tega amatwi 'to snare with the ears'. DJ67 ukukutegeleza?: East Ruvu ku-tegeleza; G23 ku-teүceza/ku-geeza; E134 tekeresa: F24a -tekelezya, F24b tegelelya: F33 kv-teerera: F34 o-teererera < PB *-teg- 'trap'? innovation by extension of meaning
resemble very clowely -ikola (F23a. F23b kw-iikola; F24a, b kw-iixola) Corridor uku-kolana (cf F32a gw-iixwere; F32b g-iixwa; F32c g-ixwa, where *d or *l is sometimes lost)
scize-diima (F24a -diima) (cf F25, Corridor ku-lema; (EJ22 ku-zimatila? P12 ku-limba?) EJ34 oxu-dira (misspelling?)
speak -yoomba (not shown in F21b) (F23a, F23b ku-yoomba) EJ16, EJ24 ku-yomba, EJ25 -yomba: EJ34 oxu-yomba (cf EJI7 kw-omba 'quarrel'; G52 ku-womba: <-gomba as in. Seuta. [East Ruvu] -gomba?; (-gomba-na (reciprocal as in G24, G31, G52 -gombana) (cf mbegu > mbryu is it the same process of $\mathrm{PB}^{*} \mathrm{~g}$ loss which in SN is irregular, found in a few words like these two? *y-loss in non-high contexts is regular in E60/E74, some Sabaki, F33. F32, some Thagicu (see Nurse 19796-462). Source of -yoomba therefore may be one of these languages/groups)
squeeze (mi/k), milk - $\int$ eema (F21), -syeema (F22a, F22e), (F22d has -kama - not related) (F24a - feema, -syeema ${ }^{25}$ ); F3la - feema (cf EJ32 xufela (misspelling')
tumcat (half-wild) kIImbulv (F22d sIImbulv) (not indicated in F2lb, F22b and F22a)(F23a siimbuulu; F23b simbuvi(; F24 kImbolv) EJ441 kembulu
war $\beta$-lugo (F22a, F22e wo-lugu, not shown in F22d) (F24 wU-lugu) G6i uwu-lugu, M20-ugu; G66 lilugu; (Proto Kalenjin *luk 'war, raid' (Rottland 1989; or < Proto Southern Nilotic *luk 'raid', Ehret 1971)

[^88]white-aape (not given in F22d) (F10, F24a -aape; F23a, F23b -epe) Innovation using the intensifier instead of the lexeme: <*-yelu pe, where pe is an intensifier. KiSwahili (G42d retained both, with regular loss of *l: -eupe. (See Nurse and Hinnebusch 1993:290, 583-4) wim/ lo-yaga, faga ( $<$ mu-yaga as in F22, F23) (F10 mu-saya) Rutara, EJ25 omu-yaga; DJ60 umu-yaga: Borrowing: $\angle \mathrm{DJ} / \mathrm{EJ}$ mu-yaga?

Compared to the unique creations, shared vocabulary due to borrowing or contact generally


Figure 4.9 Areal frequencies between SN and other languages
predominates at 16 words out of the 22 total. Such skewed results in favour of external sources of vocabulary support in part the idea that the sources of KISukuma2/KINyamweezi are many and varied, as Batibo (1992b) points out for KiSukuma. The other languages or groups sharing one word each with SN are EJ30, DJ62, EJ40, G64. EJ16, G6I. G66, NI4. P14, F31c, G32. Thagicu, E74a, E117, F3la, Proto Southern Nilotic (PSN), Barbaig, DJ66.

DJ67, East Ruvu, G23, F33, F25, EJ22, P12, G52, EJ441 and Rutara. Those sharing two or more words are represented in Figure 4.9.

## +.2.1.2.10 Ar (80\%) (GiAhi - GiRwana)

Only 7 words are shared by these two dialects, indicating that their history as separate dialects has not been a long one. Out of those, $3(43 \%)$ are unique, supporting the idea of a short period of separation. On the other hand, it is difficult to predict whether a longer list of words would make a difference in the percentage of unique vocabulary. As it stands, the distribution between unique and areal vocabulary is almost equal. 3 by 4 words respectively
(158) Unique vocabulary (3 words)
arrow i-Ruumbo (cf F21c Ikuumbo 'arrow shaft')
listen-Raaya (F32a), -taraya (F32b)
mushroom mpo Ra/ma-mpora
(159) Areal vocabulary, derivation, morphological innovation and borrowing (4 words)
branch (tree) i-saanja M14 lu-sansa (cf EJ3Ic -sagia, EJ34 esaga) < PB *-canj- spread' derivation and extension of meaning (not from PB *-canju 'branch')
chase (avay) -jojca (F32a), -jufca (F32b) (cfG64 xu-nica: EJll kw-iruca; E51-fukia: E54a ku-rungia; E55 ku-lungya)
climh, ascend-nanta (cf F24-nanta ${ }^{26}$ climb')
hum Useempa (cf G33, G35, P11 ku-pelemba)

[^89]

Of the 25 words, 10 or $40 \%$, are unique to KiniLaamba (F31). The rest occur in other neighbouring languages, although there are few cases like M30 languages which are not adjacent A high number of unique words from the total number of innovations indicates a historically valid and close-knit linguistic group, especially when it is larger than a language, incorporating several dialects. When the majority of the innovations is composed of shared words, the claim of historically based grouping becomes less certain.
(160) Unique vocabulary (10 words)
be, become ko-tula (F3la, F31b), kv-tola (F3lc)(cf G23 ku-ituka?. G51, G54b gu-tuika?) get, ohtain kw-iligia (F31a), ku-ligya (F3|b), ku-lija (F3|c)
lectif (of tree) loka (not shown in F3Ic)
lean. bend (dowm) ko-tuna (cf F21 c-tuna bend the knees and lower body vertically. especially for women, as a sign of respect'):
maize m-pukile (F3 |a) -pokrle (F3 1b), kim-pukIle (F3|c)
mourniug suka (not mentioned in F31c)
search for ko-duuma (F3la, F31b), kס-duma (F3|c)
spear n-dilima
nwin miintutt (F3|a, F3|c), mintyotr (F3|b)
wife mo-soongo (F31a, F31b), mu-soongo (F31c) (cf P23 m-jangu/ת-jangu?

The following 15 words, though they occur in other zones outside Zone F, are peculiar to
KiniLaamba only within Zone F, representing $60 \%$ of the 25 words identified. Where a Zone
F language or dialect uses or shares such a word, then it is likely to be either a loan from
KinILaamba, or the language borrowed it from the same source
(161) Areal vocabulary, derivation, morphological innovation and borrowing ( 15 words)
carry, convey ko-keenka (F32 -keenka) M31 u-kwega? G65, EJ25, EJ40-yeya: NI2gega?
climh kU-naagkila (F31a, F31b), ko-naayjtla (F3 1c) EJ41 -yanigira?
 i-kundi
louse m-pani F22a, F22e, F24 m-pani; M20 m-pumi; [East Ruvu] mani/mani milk ma-sưnsu (F32, F33, F24 ma-suU(n)su ) E65, G22, G50 ma-susu ${ }^{27}$; DJ64, M22 amafyufyu(cf EJI3 ama-fununu? EJ15 ki-sununu?) Widely distributed generally.
penis ki-loga/mi-loga (F3la), ki-duga/mi-doga (F3lb), i-loga (F3lc) (F32ci-roya, F22e. F24-luga; F25 i-IUwa) (cf [EJ40] uru-zunga? E46 ke-fugga? Cf also [Rutara] ku-cuga 'copulate (with')): extension of meaning, as euphemism meaning 'paddling tool'. $<\mathrm{PB}$ *-dugpaddle $v t$ vi
quarrel (vi) kU-kIleea (F3la. F31b). -kilea (F3|c) G5I ku-lirewa
rest, kake a holiday ko-fuopya (F31a), kv-soopya (F31b), ko-supya (F31c) (F22a, F22e -suuha, F22b -isuuhya, F24 kU-suupa; F25 ko-supa) [G60] -suupa
rooster, cock muombi (F31a, F31b), mumbs (F31c) restriction of meaning ( $<$ PB *-cumbI 'chicken' or < PB *-buUmb- 'mould pottery, create'?
sct (of the swin) ku-faainla (F3la), ku-salirla (F3lb), ku-halirla (F3|c) F2Ic -salalila: E46 -fala, -syala; [EJ40] -fara?
spider tyati (F3 la, F3 Ib), itati (F3|c): derivation and extension of meaning, < PB *-tat- tie up'
stem (of maize, millct) Iv-peleli (F31a, F31b), i-peeli (F31c) (F10 i-helele, F25 ma-pelele: F21. F22. F23c ma- $\beta$ elele) M10 im-pelele; M20, i-pelele/ama-pelele. [M30] imi-pelele; EJ402 lißerere; [P10] -pelele: N12 lipehe; semantic shift? < PB *-bede millet, eleusine, soryhum'
fomorrow mu-daau (F3la, F31b), mu-dau(F3Ic) [G60] ki-lawu/ki-lavu: [N10] ci-lawu: G50 ci-lau; $[\mathrm{P} 10]$ malabu/malabo Difference of prefix only, and F31 is unique
wind n-zega (F31a, F31b), nw-eega (F31c) (F24 in-jega², F25 Um-weya) G51 1-yega, P15 li-yeya;
word IU-kaani/g-kaani (F31a, F3Ib), IU-kani/gkani (F3Ic) (cf EJ40, [EJ25] e-nana/amaŋana: semantic shift: < PB *-kaani- 'to contradict', and in EJ40: $\mathrm{gk}>\mathrm{\eta}<\eta$-kaani (See Nurse 1979b:433 on $\mathrm{gk}>\mathrm{\eta}$ )?

[^90]

Frequency of lexical ocarrence in groups

## - Figure 4.10 Areal frequencies between F31 and other languages

## f.2.1.2.12KLRDmi (RI) (78\%) (GiAhi - GIRwana - ynyaMtunyipanyi)

The 10 words ( $20 \%$ ) out of the total 49 as unique inventions in KIRImi suggest group cohesion. On the other hand, the group is heavily mixed as the speakers have interacted with others from adjacent languages. Shared vocabulary indicating that mixed nature of lexical stock is $80 \%$.
(162) Unique vocabulary ( 10 words)
are gr-heendo (cf P 25 imbendo)
clothes, matertal i-saa/ma-saa

```
cronven of heud buosa
hae i-koujo
mcdicine, remedy ma-hoka
pronoutce U-hafa
tail I-\phiuUmbu
thicket-RonkU
try -sooya
"p. ahove go-0nto
```

(163) Areal vocabulary, derivation, morphological innovation and borrowing ( 39 words)
hirth (give), to a child U-фaафа M20, M30 ku-paapa; G64 xu-baba; N12 ku-baba parcht, s he who hegets mu-фафi G66, [M20] m-pafi; M30, P13 -papi
blood -sa yami (F3ic, F33-sakami) [G30]-sakame, Thagicu, E65-Өakame, E46 n-daxame, [Rutara], DJ65-[agama/-sagama, [E60]-samu? (in some E60 languages g>0, eg. -waa 'kill' < PB * -buday- 'kill'. For -samu see Nurse 1979b:108, West Kilimanjaro (Masama E62a). Rombo (Mashati-E62c): ${ }^{*} \mathrm{i}>\mathrm{u} .{ }^{*} \mathrm{u}>\mathrm{i}$ as in KiWunjo (E62b), KiRombo (E62c) mhurn 'goat' < PB *-budi; -eri 'chin' < PB *-dedu, and therefore, -samu: Proto Southern Cushitic *sak' 'blood'? ${ }^{2} \rightarrow$-sagami $\rightarrow$-sagamu $\rightarrow$-samu? borrowing from Proto Southern Cushitic.
hreathe, rest gu-hea [G60] kwe-ehela; [Luhya] oxu-hera; [EJ40] -hecera (cf P23 kuyewelela)
hrother (older) mu-una (F3 Ib mu-nuna) Northern Dialects of KiS wahili innovation *m-nuna 'younger sibling' as in G4 1b, G42d mu-na (Nurse and Hinnebusch 1993-300) (cf EJI3 omurumuna: E52 me-rva gina; E54a mu-rua jia; EJ42 mo-mura)
day aftier tomorrow фin-kio EJ42 en-kio ende; G24a -kioi; EJ11 -kiro
far kw-eengr of Barbaig Jagi 'far'
fly (vi) O-ruma (cf P15 ku-jumba; P22 ku-lumpa; G36 ku-zuma;, E74a ku-zumba, ku-zump"a) follow -hoonga G65, G66, M30-konga; [M10], M20-konka ( ${ }^{*} \mathrm{k}>\mathrm{x}$ where it is phonetically easy to change to $/ \mathrm{h} /$ before low vowel/a/ or back/o/ in KIRImi. although elsewhere. *k > k)
get, ohtuin U-haanga G51 kw-ank $\mathrm{k}^{\mathrm{h}} \mathrm{a}$
hate, detest 0-hura [Thagicu (i.e [Thagicu] ku-Өuura and E46-soola)], Luhya oxu-syula, [E62] -sua;

[^91]lech, hecome; grow thin U-soxoa EJ14 oku-koha? M24 ku-hoha? (G65 uku-sokoka?, G35 ku-soka)
lwok arount -iheenga [Luhya] oxu-henzahenza?
lost (get) -yaya G60, [N10] ku-yaga; Seuta, East Ruvu kw-aga, E55 kv-a, kw-aa; P23 kuyahika; E74a ku-lagaya;
love, wem 0-yaanja [EJ40] -hajca; [Luhya] xu-yanza
marriage -ilooyoa (cf F3 la -loogwa 'love, want') E74a ku-lowoa, DJ65 ku-longora
milk (in) ma-aya (cf [E62] ma-lla < ma-nla < ma-lela (as in E62d): borrowing . Proto Southern Nilotic *Pe:l' ${ }^{\prime}$ - 'white' (Ehret 1971:138)
milk (fresh) ma-huØŋga (F21b, F21c ma-sU0ŋga; F23b ma-suunga; F23a ma-suka)
mother iyvu (F33 iyo; F3Ic iyaa, F2Ib iya) EJ441 yiya: borrowing: < Barbaig yiya, Proto Southern Nilotic *iiyo
sold times, the paw ka-enge G35 u-henga
pipe (tohacco) i-fuunde (F33-puunde; F34 ke-buunde) El45 cke- $\beta$ onde: G35 mu-nde: EJ24 eki-bunda? (cf Barbaig kaponded)
pil, hole i-koombo (F31c i-koombo) G36 -kombo; P15 li-yumba? [Cf DJ60] ik-yoßo?: EJ25b er-yobo?, EJ3I li-lowoo?, EJ3Ic -dopoo?, [EJ40] mw-oßo?)
pour casoy -hunot (F31c -huncla) G61-kunula
push u-suntIIya EJ43 uku-hunia: G65, M2I uku-sufcilizya: (cf EJ42 ko-sukia?; G32 kusup̉iza?)
yuiet (be) o-kila EJ40. [Thagicu] -kira
renurn-soka (F31c ku-suka, F24 -syuxa ${ }^{\text {31 }}$, F33 ku-fyouka) Thagicu -cioka (cf F21, F22b, F3la/F3lb, -fooka'-fooga) 'return vi', -foofa 'return vi, reply' '
rooster: cock ת-jololo (F24 ת-jogolo; F25 i-jogolo)
scarch for-феeлja (F32c) (Fl0 ku-heensa; [F22] kU-pesola/kU-pesa) EJ31-peenja: EJ25a oku-yenja, (cfEI4l kw-ena: E62e-sengeta, M25 -hwanza)
shame mijaa (F3Ic minala; F21 minala; [East Ruvu] minala
shiver UxaxaRa ${ }^{31}$ (F3lc kU-kagata) (cf EJ43 oko-gaykana)
small noyu (F32c) P14 -cuku (cf EJ 40 -suhu)
spear ( $m$ ) mu-koha: [PIO] [West Ruvu], G50, [G60], m-koha: Seuta. [East Ruvu] -guha: [N10], n-oha (cf F2Ic n-guha < mu-guha 'small, spear-shaped, functionally double-ended. big needle either used for sewing hard materials like leather or in KiSukuma medical operations, and it resembles D-gela, which is such a big needle used exclusively for medical purposes')
${ }^{10}$ From Nurse and Philippson's list.
${ }^{31}$ In KIRImi, the voiceless flap represented as $[R]$ is a regular reflex of $P B$ *t in many words, although it often occurs in free variation with $/ t /$ (See Olson (1964:13) on the allophonic nature of $[R]$ ).

# swectl (II) mu-RuRu (F2|c li-duutu) North Rutara e-tutu (cf P|0 li-usu): derivation and extension of meaning < ${ }^{*} \mathrm{~PB}-\mathrm{tu}$ 'spit ${ }^{\prime}$ <br> sweet, pleasamt-loombe M14-lyompe; ([EJ40]-omereru?) <br> thigh (of humat canimal) gI-nama (F3 Ic kI-nama) E60 ki-nama; [EJ40] eke-nama; [Luhya] esi-nama; (also G61 inki-flamana) <br> tomorrow фadio (F32c) EJI6 ido or idiho - possible misspelling as given: idho? <br> wash clothes -homboa [Thagicu] kU-Өambya ngUa? (cf E46-sabya?) <br> what ntouni (F3|c ntUUni) M24 honi? [East Ruvu], M32 coni?, M23 Joni? <br> word i-hapo (cf F21/F22 muhayo) 

Apart from those groups in Figure 4.11, other dialects, languages or groups which share one word with F32 include G64, N12, P13, E65, Southern Cushitic, G51, E1441, F34, E145, EJ24, M21, F25, EJ31, G40, G24, P22. Corridor, E55, P23, F23, F21b, F10, P14, G50. West Ruvu, North Rutara. P10, M14, E60, Ejl6, M32 and M23


- Figure 4. 11 Areal frequencies between F32 and other languages


## f.2.1.2.13 NM (78"か) (KIKIDnh - KLSukuma - KINyamweezi)

Only four words join these three language groups, KISukuma (F21). KINyarnweezi (F22) and KIKIImbU (F24). The four words can be accounted for in terms of diffusion from a common source, either from among them or from a common ancestor. This account is plausible because all 4 words are not unique to these 3 members alone. They are also found in zones DI, EJ and G, among others, as areal words
(164) Areal vocabulary, derivation, morphological innovation and borrowing ( 4 words) bush. forest -poolu (F23a i-poolu; F25 i-pooli) [DJ60] i-polo. East Ruvu P12 -poli /-hulo?
calf of leg-saluta/saluda/n-saluta (not mentioned in F2Ia, F22a, and in F22dn-salula) EJ44 e-sanuta; EJ43b i-sutwa; (Cf Gisamjanga, Barbaiga ${ }^{32}$ hàw-da 'thigh', Proto Southern Nilotic *aR (Rottland (1982:296))
thigh (expecially humam) i-taango [EJ40] ri-tango; [Luhya]-rango: DJ65. DJ66 i-tako: G23 -tako (cf DJ62 i-tako female thigh'),
try -gema (F23a, F23b -gemezya, F23c -gemeza) EJ402-gema, (cf E54a -gena)

Of these languages and languages groups, only SiSiloombo (F23a) shares two words with NM (KISukuma (F21).KINyamweezi (F22) and KıKirmbu (F24)). The rest share with this grouping only one word. These are F23b, F23c, F25, DJ60, DJ65, DJ66. East Ruvu. PI2. EJ44. EJ43b, EJ40, Southern Nilotic, Luhya (EJ30 and EJ41), G23 and EJ402 Such a distribution does not tell definitively about genetic affiliation since even the areal vocabulary is widely distributed.

## 

The small number of shared innovations in this lexicostatistical node makes it doubtful as a historically valid grouping, as in the NM (KIKirmbu + KISukuma + KINyamweezi) case above. The unity of the node supports a retention-based explanation, which is a weak classification criterion. Three words out of the four can be said to be uniquely NL (KıKımbu + KıSukuma + KINyamweezi + KinILaamba). But the major drawback is that. one of the major members of the group, F24b KiKirmbu South, does not have all three words in our sample. The absence of these three words in F24b suggests a later diffusion

[^92]from one language rather than innovation within an earlier group (NL) before a split. This areal account is supported by the relatively heavier influence on F24a by F22 dialects because of F24a's closer proximity to F22 compared to F24b. In addition, the last word remember' is shared by Rutara (EJ|I-4, EJ21-24) and Corridor-Nyiha (M20) languages exclusively. indicating a possible source from them as neighbours.
(165) Unique vocabulary (3 words)
face downucirds flie on ome's stomach) -bundaala ${ }^{13}$ (not indicated in F22a, F24b) (F23c $\beta$ uundaala) (cf [EJ40] - $\beta$ umara?)
port, vesse/ kr-seme (F23-seme) (not indicated in F24b)
stick mu-laanga (F21b,c naaja (< mu-laana); F32 mw-aanga) (not indicated in F3la,b and F24) (cf N11 n-denga; N12 n-donga?)
(166) Areal vocabulary, derivation, morphological innovation and borrowing (I word)
remember F24-ijukIla: F22 kw-izukila: F31a,bkU-kIjukal F21-izuka). (F23a-izUkila, F10 kw-isukila) (cf F23b-ißukIla, F23c-ißuukIa), Rutara-ijuk(i)a; [M20] -izuk(i)a: M11 ukw-idukila; [EJ25] -icuka

[^93] KılRImi)

In the linguistic tree constructed for Zone F in section 4.1.1 above, this is the final stage in which the languages appear to be closely connected lexically. But even this connection is not necessarily genetic, because areal features can spread quite quickly if there are favourable conditions for adjacent social networks to be established. There is no strictly unique lexical item joining this lexicostatistical group. Only one word ( $14 \%$ ) partly appears to be a unique innovation, -dcule 'pack, flock'. However, since it is also reported in MI2 (KiLuygwa). a F22 neighbour, it suggests innovation in one area only and with later spread to other languages through contact. Since -tactle is associated with an animal flock, it is likely that F24 might have borrowed it from F21 or F32 where animal husbandry is more entrenched. The occurrence in non-pastoral speech communities suggests borrowing, and since animal herds and their herders can be mobile over long distances through trade or emigration, cattlerelated words can spread quite easily. The linguistic and the socio-economic cannot be separated, since the socio-economic activities and interaction directly influence people's experiences and how those experiences are expressed in their languages. Because the words in this group are areal or occur in other zones as well, the implication is that they are inherited or borrowed from a common source. With such a distribution therefore, the genetic status of the group is doubtful and inconclusive.

[^94](167) Areal vocabulary, derivation, morphological innovation and borrowing ( 7 words)
pack, flock, group i-daale/ma-daale F3 la,b dyale/ma-dale; F32b dae/ma-dae; F32c i-de; (not mentioned in F2Ib, F22a, F32a) F23, M12 i-daale/ma-daale. Also in East Ruvu like KiZalamo: loanword from Cushitic (Ehret, p.c.)
boturlary lv-birmbi F25 olv-wiImbila (not mentioned in F32a ${ }^{35}$ ) South Rutara, EJ25b oru-bibi: F10 i- $\beta \mathrm{i} \beta \mathrm{i}$; DJ60 uru- $\beta \mathrm{\beta i} \beta \mathrm{i}$; [EJ40] oro- $\beta$ e $\beta$ e (cfF22d lu- $\beta$ oumba; [F23], lu-vuumba; EJ45 оги- $\beta$ ußa)
love, weit -togwa ef F31 a kulyoogwa; F31b kuloogwa; F3lc kulowa: (F23 ${ }^{*}$, F25 togwa) (not mentioned in F32) cf G65 kunogwa; G35, G37 kunogela (F21c -toga object O please subject S')
pole (Ihih) -kito-gito (not mentioned in F21a) (cfF32b fiRo; F24b-sito) cf also [G60], M31 ulu-sito; [M10], M32, [Seuta], P13, P22-fito; G52 u-fitu: DJ66 i-fyito; P14 -hito; EJ14 umusito. Also wider distribution in East Africa generally as in KiSwahili (G42d); [Thagicu] rubito?
sharp (be)-yokIpa/-yUgIpa (F31a, F31b-yupika; F23a, F23b-ugiha; F3ic n-rgI sharp') (not mentioned in F21b, F22d, F24b) /Luhya/-ogiha; [EJ40]-ogeha; EJ24; -uhiga; [Thagicu] -UgIba; cf, E61 -yoi-ya; and EJ25b, M32 -ugi 'sharp'
sheep -kolo ${ }^{37}$ (F21. F22b, F22e jolo; ( g -kolo (F22a), (not mentioned in F22d) G11 ${ }^{\text {ik }}$. [East Ruvu] -kolo; [G60], i-polo/-koondolo ${ }^{33}$; $<-$ kolo $<$ PB *-kodo sheep
well ( $H$ ) -ji/zI (F23a lw-inzI) (not mentioned in F22d), EJI5 luz-zi; PI3 lose; Derivation < PB *-yyif 'water'
${ }^{15}$ The informant was not sure.
${ }^{16}$ From Nurse and Philippson's list.
${ }^{17}$ Although this word is part of Guthrie's (1967-1971, Vol.3:291) reconstructions for Proto Bantu, as a recent acquisition in Eastern Bantu, there is uncertainty about its origin. For instance, it was not clear whether the word was actually borrowed from outside Bantu or not (Ehret 1968b:217), although later, Ehret (2001, p.c.) affirms that -kondolo is a Bantu derivation while -kolo is a ioan from Eastern Sahelian *kwar.
${ }^{18}$ The languages in this category are from Nurse's field notes prepared in the 1970 s Some of the languages like G1I iCiGogo are not in CBOLD at the time of writing this line. In comparative examples, GII has not featured because of that reason
${ }^{27}$ On the other hand. Nurse and Hinnebusch (1993:669) assert that n-kondolo 'sheep in some Sabaki, Ruvu and Seuta languages is of non-Bantu origin.


Figure 4.12 Areal frquencies between NR and other languages

One major problem in this set of words is that some of these words are not found in certain languages/dialects, making their unity even more doubtful.

## +2.1 .2 .16 Zone F

(169) Unique vocabulary (I word?)
old person (male) mu-nampala (not mentioned in 7 out of 22 varieties: F10, F22a, F22d, F24, F25, F33, F34). The one word is found nowhere else with one major problem: F24 as a prominent member of Zone F does not show the word, even F24a which is relatively proximate to F22. But also, two dialects which form the cores of Zone F, F22, do not show the word. F22a and F22d, indicating that, the word may have originated from F21, F31 or

F32, from mu-na-m-pala the one with the bald head ${ }^{\text {to }}$. From one source, it spread to the rest, especially given the absence of serious physical barriers between the speech communities.

Rather than define Zone F as one unit, the one word or ( $6 \%$ ) out of the total 16 in ( 169 ) only happens to be in the zone in most, but not in all, of the language varieties. This word is munampala 'old male person'. The speech communities being relatively adjacent to each other, but then sharing only one unique word as a marker of their genetic attiliation casts serious doubts on the claim. In addition adjacency also disturbs the core of Zone F by introducing the possibility of a word spreading easily from one source, so that a few shared words confined to Zone F alone can be only accidental. Furthermore, most of the intermediate lexicostatistical nodes forming Zone F are not as genetically cohesive as shown by the qualitative analysis of the vocabulary. Since reliance of unique innovation for the validity of Zone $F$ is placed on one word only, the qualitative evidence is not hard. This word is likely to have originated from only one of the languages and simply spread, due to the often friendly relations which have existed between these core Zone F community members. with frequent intermarriages and cross-migration sustained over a long period of time. If smaller populations in the earlier constituent F languages are assumed. living relatively even more closely than is currently the case, then the spread of words might have been much easier and faster, all conditions being equal, and hence, this word does not isolate Zone $F$ as one historically cohesive group. The word excludes an important member of the traditional Zone F core, KIKIrmbu (F24), both northern and southern. The other varieties in which the

[^95]word is not mentioned are F10, F25, F33 and F34. The distribution of this one word not only weakens the core of Zone F significantly, but also it goes on to support what Nurse (1979a, 1995a, 1999) and Ehret (1999) have maintained over a period of time about the doubtful status of F10, F25, F33 and F34 within Zone F

It is tempting to even suggest that this word is actually borrowed from Proto KalenjinOmotic, a word given as 'p^AyA^n 'elder' (Rottland 1989:223). The form, meaning and distribution offer a strong argument. The path might have been p^AyAAn $\rightarrow$ payan $\rightarrow$ palan $\rightarrow$ pala $\rightarrow$ mu-pala $\rightarrow$ muna/muja-m-pala. The loan might have started in one language and simply spread to the rest. This source may be F32 (KIRImi) with a fuller form musampaa. although the $/ / /$ is normally lost. In SSN , it was reduced to munampala, then to nampala and namala in F21/F22b. This argument adds to that by Nurse (p.c.) as being from '(person) with the bald head $<$ PB *mu (class 9 marker, which includes people) + *-pada bald. Both hypotheses do not seem to have any strong justification as to why should 'old man' in this group of languages and not 'old woman' use a euphemism like the one with the bald head' or borrow from Southern Nilotic. One suggestion would be the higher status and esteem which the Southern Nilotic elders seemed to have been enjoying in the eyes of outsiders, and it might have acted as an incentive in the speech communities in contact with them to adopt and adapt the term ${ }^{41}$. In fact, there were intermarriages between them, especially in eastern

[^96]BuSukuma where contact was maintained as the Datog continued to move in and out of the area they once lived (Itandaia 1983:189). In this contact, some Datog were absorbed into KISukuma society, by the $\beta$ aßiinza clan, and with this absorption, many cultural aspects were also acquired, especially in livestock keeping which made the predominantly agriculturalist ßaßiinza into pastoralists as well, being selective of those aspects which were only beneficial for them (Itandala:ibid) This fact is borne out by the Datog proper names for both females and males. place names, some rituals, name for the Datog god Asita, etc. indicating that the contact between Southern Nilotic groups like the Datog was harmonious and mutually beneficial rather than the adversarial nature implied in contact situations and/or replacement of one speech community in an area with another. They might have moved out of the way because their exclusiveiy pastoral way of life became incompatible with the now mixed farmers $\beta$ aSukuma, who continued with their farming tradition after adding cattle keeping.

The term for 'old female person' in many Bantu languages is composed of two morphemes, PB *-ka, *-ke or *kI woman, female' and PB *-kUdu big, or old'. forming mu-ka-kulu. mu-ke-kulu, or mu-k1-kviv respectively, or other such words with 'person' and 'old in

[^97]either order. The term for 'old male person' from PB is normally derived from two words from which many other variations are possible: mu-nto 'person' mu-kulu big, or old' as in KiWoso (E62d) ndu gku < muntu mukulu or as in Gikuy0 (E51) mundu mukuro, or in Maragoli (LuLogooli) (EJ4|) mukurundu < mu-kuru mu-ntu; and mu-IUme -kolv big or old male*, as in KiSeri (E62e) mmeku < mulumekulu.

The remaining 15 words, or $94 \%$, do not define Zone F either. They occur widely across neighbouring zones also. With inter-dialectal borrowing, this is not surprising. The most telling feature of these words is that they are borrowed, mainly from Southern Cushitic (cattle terms), Southern Nilotic (some cultural items like terms for animal hides/skins) or KiSwahili (trade terms like metal pots and tins), indicating the lexical impact from one source facilitated by movement inherent in pastoralism and trade, and therefore the 'movement' of these words from a recent past.
(170) Areal vocabulary, derivation, morphological innovation and borrowing ( 15 words)
hull-yagamba (not mentioned ${ }^{42}$ in F10, F22d, F24b, F25, F33). This word occurs in two shapes - yagamba, as in most of Zone F and -kamhakol-kambakar as in [G60]-kamba-ko: $\mathrm{M} 20, \mathrm{M} 30, \mathrm{~N} 10, \mathrm{P} 21-k a m b a-k u ;$ borrowing < Iraqw yaqaamba (sg), yaqaambee ( pl ) 'bull, big male animal'. Where it occurs in Zone F, the word comes directly from Iraqw. cadf-dama (not mentioned in F10, F31c. F32a) Seuta, East Ruvu, G52. [M10], M32. Pil n-dama; G61, M22 in-dama; Burunge, Sandawe dama: borrowing < Iraqw dama

[^98]catle mi-tuge (not mentioned in F10, F23b, F22e, F33, F34). Occurs in three shapes, with stem-initial /t/, with stem-initial /f/ by process of Bantu Spirantization and with regular $/ \mathrm{t} /$ followed by prenasalized/g/ [ng] instead of/g/as in [EJ40]-tugo; E74a. [Seuta], [East Ruvu], G52 mi-fugo; [Rutara] i-tungo ly'ente; [DJ60] ißi-tungwa; (cf EJ32 mi-rugu; N13 mi-pugo? ) Innovation by a proto language from which some Zone $\mathbf{F}$ members descended (cf Eastern African Bantu and Ruvu languages in Hinnebusch and Nurse 1993 :585).
grodt (he) y-gulaati ( [F22], F23a,b, F24, [F31]); y-gulyaati (F21), y-gulaata ([F32], F33, F34) (not mentioned in F10. F22a, F23c. F25, F31b, F32a). G35 vulati; Seuta -vulata. vuata, Barbaig qwarayda, Iraqw gurta (sg), gurtaawee (pl) (see Maghway (1995); Burugge gwerati; Kw'adza gulata < Proto Southern Cushitic *-?ogur- (Ehret 1980 293). The word. though from the same source, displays two major areal phonological features which define three different geographical groups and phonological influences: -gulaati, -gulyaati and gulaata with an -i/-a divide, most probably depending on the route the word took to reach them. The -a word suggests a direct route from the source, and it is in Seuta only (G23, G24, G31 and G34), while the -i is not based on direct transmission, or the plural form. gurtaawee, was taken instead of the singular gurta. This is found in iKiLuguru (G35) and some members of Zone F only, resembling the Burunge gwerati.
lime, whiterash -swalakala (not mentioned in F21b, F3 la, F31b. F32c, F34) [G60]. P10. P20. Corridor-swakala/-cokala; EJ25; [EJ40]-swakara/-cokala; N10, cwakara/-sokala. DJ66 i-fwankala: [East Ruvu], Barbaig. [Thagicu], [Seuta], [Rutara], [G50], [Luhya], [Chaga], [North Nyanza] -cokaa: borrowing: from G42d, through English chalk"? This wide distribution of the word suggests that it is a recent loan from the same source, most probably English, especially if it is associated with house decoration on sealed walls. It is unlikely that completely plastered walls were common in such hot and humid climates where mosquitoes, the heat and darkness would discourage such house construction. The word is also unlikely to be found in languages which did not have any strong English impact. The need for $\mu$ swackala is hence highly dubious as a native concept in hot climates apart from borrowing from a culture which needs sealed houses because of weather conditions like extreme cold. In cold climates like the vicinity of Mount Kilimanjaro and the Upare ranges (E60), Bukoba (EJ20), Mbeya (M30) and Iringa (G60) a native word is likely to have been in place already, making borrowing unnecessary. This fact is corroborated by the absence of -srrackikula in dialects/languages either located in relatively cold climates or those in isolation like G62 (ingeesi), G63 (ingedzi), E65 (mlaci), [EJ20] (-noni), M30 -pana; E46 mbarimbari look affer grazing cautle -dinma (not mentioned in F10, F25, F31b, F33, F34). M13. [East Ruvu], G52, G60, M20, [N10] ku-dïma; M3I uku-tima (cf N14, P13 ku-lima) borrowing: < Iraqw/Alaywa de?em- 'to herd' < Southern Cushitic, from Proto West Rift (see Ehret 1980:190: Nurse 1988:64-79; Batibo 1992b:63)
monkey (small, lighish-coloarcd) n-toumbili (not mentioned in F10. F23. F25. F32a) East Ruvu, [G60], N10, P20 -tumbili, [P10] -tombele; Seuta, [Corridor]-tumbii; EJ32 in-duvili; (M32 n-gambili') Innovation by a proto language from which some Zone F members descended. Also widely distributed in East African languages like KiSwahili tumhili.
onc-eyed (heing) -soonge (not mentioned in F22d, F31, F33, F34) E325, [Luhya], [E140] soongo, N13-songu; Thagicu-Өongo; Seuta, East Ruvu, G51, P13 -congo; DJ61. [Rutara] -fongo; (cf EJ402 eke-tongo?; EJ43b ege-tongo?; EJ403 eke-tono"; EJ42 ege-toro: [Corridor] -tonko (mbali)?) semantic innovation: < PB *-congo 'point'?
pool, pomd-laambo (not mentioned in F10, F25, F33, F34) EJ41, G32. P14 -lambo; [EJ25] -rambo, G37, G60. M10 -laamba Innovation from a core then the word spread to others This is another telling word where the four languages are effectively excluded. This however does not necessarily prove that the remaining members are genetically unified because the distribution of the word extends beyond Zone F.
pot (imetal), cup-kopo (not mentioned in F10). DJ50, Rutara, EJ25, Seuta, East Ruvu, G50, G60. Corridor, M30, N10, P10, P20 -kopo; EJ40-koßo: [E60] -kobo; Barbaig kop-ajanda (sg) /kop-ajega (pl): borrowing, < KiSwahili -kopo small tin' < Portuguese copo cup* (Tucker 1946.857). This is an illustration of late borrowing from a common source like KiSwahili (G42d) in which unrelated languages seem descended from a common, immediate ancestor where even Iraqw. a Southern Cushitic language, has koopo (Mous 1993.42) With this word, all the 8 Bantu zones occurring in Tanzania are represented (DJ. EJ, E. F. G. M. N. P). The word is significant in highlighting the potential for misleading conclusions when languages share a word. Sharing a word is not enough. The source of that sharing should ideally be ascertained beyond any reasonable doubt.
pot, mug mu-kebe (not mentioned in F10. F24b, F25) [DJ60], Rutara. EJ25. Luhya. EJ40. [Chaga], Ruvu, [G60], [Corridor], P10, P20 -kebe; [Thagicu] mu-keve. All zones except $N$ display this word It is a widespread word the source of which is obscure.
sh/un (home)-Ioundr (not mentioned in F31c). [G60] -luundi; [Corridor] mu-lundi. omnundi wa lyulu; DJ60. [Rutara], M31 -lundi; [Seuta] muundi/-lundi; M13 uundundi: E65 mwindi (ct EJ42 omgorondo 'small leg'?) Innovation by a proto language from which some Zone F members descended, probably East African Bantu (see Hinnebusch and Nurse 1993 288)
skin (of person)-dilI (F23a n-dili; F23b n-dili; F33 n-dirI; F24 n-tiila) inot mentioned in 6 of the 22 varieties: F10, F23c, F25, F31b, F32c, F34): Borrowing from Southern Nilotic as in Kalenjin *irir 'skin' (Ehret 1971:143)
sky-luunde (not mentioned in F10, F23c, F31b, F25, F33, F34). P13 lyunde; P21 kwiunde semantic extension $<\mathrm{PB}^{*}$-dunde cloud'
woman mu-ki1ma (not mentioned in F23c, F31a, F3Ib, F33. F34). G62 u-muki-mama: (cf G63 umu-kidala). These words are probably segmentable as $n-m u-k i-m u m u$ and $u-m u-k i-d \alpha / u$ respectively. muk $I D n a$ or something similar is found in two G60 languages, and the morphology of the word there shows more amiquity than those found in Zone F: Derivation. PB *-ke 'wife' + *-ma mother', to suggest woman who acts both as wife and mother'

Table $+2+$ makes some important statements with regard to contact attirming both Thomason and Kaufman (1988) and Labroussi's (1999) observations on the role of proximity and the contact of different speech communities. First, F10, F25, F33 and F34 behave radically differently from the rest suggesting separate development with minimal contact with any of the other Zone F members. Secondly, the cohesion of the remaining members suggests areal


Frequency of lexical occurrence in groups
※ Figure 4.13 Areal frequencies between Zone F and other groups
influences rather than genetic affiliation, as demonstrated by F31 which is KInILaamba. showing less shared vocabulary, presumably because it is shielded from the direct impact of surrounding Zone F members The other F31 members show higher shared vocabulary precisely because they are a the edges of contact with adjacent languages, with a bigher possibility of mutual intluence (See Maps 1,2,3 in Chapter I for the relative adjacency of the speech communities).

Tahle $+.2+$ Variety and frequency of occurrence of the 16 words shared in Zone F (inn brackens) (1 word old male person' as unique to Zone F )

| Variety | Freq | Variety | Freq | Variety | Freq | Variety | Freq | Variety | Freq |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| F10 | $0^{13}(6)$ | F22a | $0(15)$ | F23a | $1(14)$ | F25 | $0(7)$ | F32a | $1(12)$ |
| F21a | $1(15)$ | F22b | $1(15)$ | F23b | $1(12)$ | F31a | $1(12)$ | F32b | $1(15)$ |
| F21b | $1(14)$ | F22d | $0(13)$ | F23c | $1(9)$ | F31b | $1(8)$ | F32c | $1(13)$ |
| F21c | $1(15)$ | F22e | $1(14)$ | F24a | $0(15)$ | F31c | $1(12)$ | F33 | $0(9)$ |
|  |  |  |  | F24b | $0(13)$ |  |  | F34 | $0(6)$ |

In order to determine further whether these 16 words are relevant in the genetic argument for Zone F, a semantic analysis is in order. Normally, there is a tendency for cultural vocabulary to be borrowed as contacts bring in new concepts and objects which require naming. With a majority of shared cultural vocabulary rather than core vocabulary, non-genetic affiliation is suggested, and vice versa. Table +.25 shows that out of the 16 words identified in (169) and (170) as defining Zone F, 6 are core, and 10 are cultural Cuitural vocabulary is subdivided into four groups: related to technology (Tech). Animal husbandry (Animal). Farming (Farm) and Geographical location (Geog). Possible sources of the words are suggested where feasible. All these words are shared by most of the other 7 Bantu zones in eastern Africa (Zone F being the $8^{\text {th }}$ ), indicating that the cohesion of Zone F is due to

[^99]convengence of different languages which drew their shared vocabulary from the same sources. In eastern Africa, 8 zones are represented: DJ, EJ, E, F, G. M, N and P (See M/ap 1.3. Chapter 1).

Tahle + 25 Lexical antlysix of Zone F shared vocahulary

| Word in Zone F | Other zones in eastern Africa | Vocabulary |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Core | Cuitural |  |  |  |  |
|  |  |  | Tech | Animal | Farm | Geog | Possible Source |
| bull | GMNP | - | - | $+$ | - | + | S Custritic |
| calf | GMP | - | - | $+$ | - | $+$ | S Cushitic |
| cattle | DJ/EJ/EG | . | - | + | - | + | S Nilotic? |
| goat (he) | Seuta, G35 | - | - | + | - | $+$ | S Cushitic |
| lime | DJ/EJ/EGMNP | - | + | - | - | - | KiSwahili |
| look after grazing cattle | GMNP | - | + | + | - | + | S Cushitic |
| monkey | GMNP | - | - | - | - | + | NECB |
| old man | - | $+$ | - | - | - | - | Kalenjin |
| one-eyed | DJ/EJ/E50GMNP | + | - | - | - | - | NECB |
| pool, pond | EJ/GMP | + ? | - | - | - | + ? | NECB |
| pot <br> (metal) | DJ/EJ/E/GMNP | - | + | - | - | - | KiSwahili |
| pot (mug) | DJ/EJ/E/GMP | - | + | - | - | - | KiSwahili |
| shin bone | DJ/EJ/E60/GM | + | - | - | - | - | NECB |
| sky | P | + | - | - | - | - | PE |
| woman | G60 | + | - | $-$ | - | - | PB |

### 4.2.1.2.17 Other groups: Kpilluamba and K.IRpmi

Three words ( $20 \%$ ) out of the 15 are unique to F31 and F32, and the remaining 10 or $80 \%$ are shared with other languages. While geographical proximity and lexical inter-dialectal borrowing cannot be discounted, the unique creation vocabulary count attracts littention This points strongly to some close relationship, although the lexicostatistically based Iree used above does not show this closeness. For example, Nurse (1979a:28) points out that in West Tanzania (roughly Zone F, without a few members), F31 and F32 stand out as the only ones without Class 13 tu- (diminutive, plural) which normally forms the plural of Class 12 ka(diminutive, singular). Instead, they form that plural using Class 19 pi-, normally a locative morpheme 'at'. Two interpretations can be advanced here: first. KInILaamba and KIRImi are genetically related, although they might have split a long time ago in the past. Tpe second interpretation is similarity in unique vocabulary as an areal feature. The other languages in the vicinity could not have exerted any stronger influence because of their geographical locations, and therefore only these two influenced each other with regard to those words which were invented by one language and spread to the other.

One supporting piece of evidence of the historical validity of F31/F32 is the grammatical aspect of Class 13 sharing. In addition, Nurse (1979a:28) notes the division of West Tanzania into two halves, the KiSukuma, KiNyamweezi and SiSuumbwa division, on the one hand, and the KinILaamba, KıRımi and KIKirmbe belt, on the other, while the other
members assigned to this group have an unclear status. For the former group, he sees some relative homogeneity, while in the KInILaamba, KIRImi and KIKIrmbu group, their unity is less homogeneous. Within this group. KInILaamba and KIRImi display this historical unity. although internally, the group as a whole which includes KIKIImbu, might be explained better by the second account, in part explaining the weak cohesion of the group
(171) Unique vocabulary (3 words)

## foram -poombelu

gother (flowers, fruif) -kala
rum -maajka
(172) Areal vocabulary, derivation, morphological innovation and borrowing (12 words)
cule (carpenters') -seeso G24 seezo; (cf [P20] -teeso; G52 -tesu; [E60] -teso: M25 fi-teso: E54a. [East Ruvu] -tezo/nezo; M14n-tezo, [EJ25]-tesyo, P13 n-deso; and elsewhere in East Africa, as in Sabaki)
cohrat (spiltugg) -IIIO ${ }^{\text {th }}$ (F34 ת-joka Лj-Iru) F24 ${ }^{45}$. G62 inamw-ilu; E46 egan-jiro; cf EJ41 ri-rubi
donkey n-dogwe [some M20] in-dokwe; F33 n-dakwi, F34 n-daako (cf DJ60 in-dogoße: South Rutara en-dogobe (EJ24 n-dogove ${ }^{\text {ti }}$ ); [some M20] in-dogobi; G61. 66 -dogovi; [North Rutara], EJ34 in-dogoya, en-dogoya. n-dogoyi; also cf E46 n-dikele, EJ40-tekere, -tikere. -tikiri: E53, E54a n-tigiri; [EJ25]-sikili; EJ3Ic -sigiria borrowing: < Barbaig diged and $<$ Proto Kalenjin sikir

[^100]fingervail-kulukulu by derivation and extension of meaning: < PB *-kudu 'tortoise'? frog -toundu (is it a species of frog rather than a generic term? (cf F2 Ic -toundu /nuunda/ 'toad' vs -daanga 'frog')
intoxicated (get)-gaala [G60] ku-gaala; M32. [N10] ku-gala; M25 a-gale (subjunctive)?
fich-yaaga EJ441 okw-iyaga
monkey (small, dark-colourcel) -puma (Not mentioned in F31a, F32b, F32c) (cf F25-Imbouma) unique creation in F31 and spread to F32? What about F25? (cf baboon, ape pưma (F24, F25 IIm-bUma) G61, G62 ili-puuma)
pig 刀-guluma cf EI32 in-gulume
porato (aveel) -doolo F2I maan-doolo; D25, [M20] kan-dolo: [P10] kin-dolo: G34 n-dolo, and elsewhere in east Africa.
thinocerox -peembele N12 ci-pembele cf DI61 ru-hembe, [North Rutara] en-kura uyaru-hembe/ekuraru-hembe 'rhino with the horn'; M31 ki-pembe-kimo 'the one with one horn P25 si-pambele?, extension of meaning < PB *-pembe horn
iesicic -tuombu cf[G60], P2I li-pumbu; Sabaki, M22 -pumbu; East Ruvu-pumbu/mumbu; Seuta. P25 mumbu; E62c, P12 m-bumbu

The other groups which share one word with F31/F32 are DJ61, G24, G34. P20, E60, E62c, G52, E54a, M14, E125, P10, P12, P13, P21, F33, F34, F24, G62, E46, F21c, M22, M31,M32, N10, N12, EJ44I, F25, EJ32, F21, D25, North Rutara and Seuta.

a Figure 4 14 Areal frequencies between F $31 / F 32$ and other fanguages

## f.2.I.2.18 Other groups: KDiLLeamba, KiRmmi, KiKimbu

The results in this sub-group are startling. Only one word seems to unite them, although even this one is shared by other groups. The most disturbing fact is that the word is not mentioned in F24b, the southern variety of KIKIImbU which shows less influence from languages of the north like F22.
(173) Areal vocabulary, derivation, morphological innovation and borrowing: (I word) shield-guia (F24a) G11, G12 $2^{\text {7 }}$, G61, G66 n-gula Borrowing (cf F21, F22b lu-nuUda)

[^101]This grouping is a good case which demonstrates the problem of lumping together languages when they are simply adjacent or because they show a high rate of lexical retention. This uneasiness is also mentioned by Nurse (1979a 28) who observes the loose unity between these languages. While they may be closer by retention, lexical innovation reveals more disunity. The cases of shared innovation like this one include mainly areal vocabulary which suggests there is normally a centre of innovation in one language and an area of spread to adjacent languages. Because of this weak lexical suppor, these languages may not be one entity historically, apart from the fact of being geographically adjacent

## +.2.1.2.19 Other groups: KilRagyi and KeeMthenve

Three words or $18 \%$ out of 17 words are unique to F33/F34, while the remaining 14 or $82 \%$ are shared by others, as indicated in Figure 4.15.
(174) Unique vocabulary (3 words)
heer i-r0s0 (F33), -rusu (F34)
pass, strpaws kJ-looka (F33), ho-looka (F34)
udder ki-miIra (F33), kI-mire (F34)
(175) Areal vocabulary, derivation, morphological innovation and borrowing ( 14 words)
broher-in-law maange (F33), maanke (F34) cf [Rutara] mu-ramu waange/ mu-ramu-kazi waange 'my brother/siter-in-law' compounding and reduction, <PB *damv brother/sister-in-law' + *-nge 'me'
follow kU-tuba (F33), 0-tuumba (F34) E46-tubagera; EJ24 ku-tubilila; cf EJ25-ruba; E62e -idubisa, Barbaig dubagesht < Proto Omotic-Datooga "rop 'follow' (Rottiand 1989)
grass, leaf-saambe D25-samba of EJ32-sambu?; G35, [G50], [G60]. [N10]. P15, [P20] -samba/-hamba
marriage i-loola (F33), -loola (F34) (F25 iloole); G42d -oa<-lola < -loola
mushroom i-rino (F33), ma-rino (F34) cf D164, DJ65 iki-zinu?
pipe (lohacco) -puunde (F33), ke-buunde (F34) (F32 -fuunde) EJ45 eke- $\beta$ onde; G35 munde; EJ24 ekibunda? (cf Barbaig kaponded)
potato (sweet) kI-rasi (F33) ke-rasi (F34) G42d kiazi/viazi. Widespread in East Africa prononnce ko-lusa (F33), o-losa (F34) cf EJ31 xu-rwaasa
spoil ku-saambura (F33), o-saambola (F34) cf E2lc -saambula 'demolish, especially a house or structure
swect, plecasant mw-erere (F33), m-orere (F34) E340-comereru/-zomereru; Seuta -mw-ile; -mw-iiye, [East Ruvu] mu-lile cf DJ66-ßeleye, E46 -jamiryo
tuke, curry ko-toola (F33), o-toola (F34) G50, [G60], M10], [N10], P10 kutola, [Seuta] -toa/-doa
keste (vel) ko-saera (F33), o-seera (F34) EJ44g ko-sagasera
yestercky niijo (F33), meejo (F34) [North Rutara] ijo, [North Nyanza] jio/izzo; DJ60 ejo/ nijoro, EJ40 ico/izo; P20 liiso/liido, P10 liso; [N10], G50, lisu; of E62e hiyo; E55 ryoo, yruuth mu-tavana (male), mu-hiinja (female) (F33), mo-tava, mw-aana-mo-ka (F34) G66 miлја; E46. E74 mo-taana

The other language groups which share one word with KiiRangi (F33) and KeeMbuwe (F34) are Rutara, E125, D25, E132, G35, East Ruvu, EJ44g, North Rutara. DJ60, P15, F25, DJ64, DJ65, F32, EJ45, EJ31, E74, F21c, Seuta. M10, P10. North Nyanza. E55 and G66

Although there is a lower count of shared uniquely created vocabulary between F33 and F34. there is reason to believe that these two are related genetically, supported by native speaker intuition ${ }^{\text {N }}$.
${ }^{\text {ax }}$ Personal communication: Michael Kimolo (1994), Florian Kimolo (1999) and Flourine Francis (1999) on the relationship between KiiRangi and KeeMbuwe with regard to KiiRangi folklore's epic branching of the earlier ancestors in search of francolins (of the (continued...)


The following five languages (or dialects) of Zone F, as individual languages (KeeMbuwe, KiiRangi, KiLoongo. ICiWuoggo. and KiBeende) display one specific lexical feature in common. Their lists of unique vocabulary which isolate them from the general stock of the Zone $\mathbf{F}$ group, whether invented or areal, are unusually long compared to the others. This may point to some significant difference in their historical development based on the assumption that if languages belong in one genetically derived zone, then the difference in their individually unique vocabulary is minimal, since their ancestor would be expected to

[^102]have innovated and borrowed the same items before a split into smaller units. After they split. only a limited amount of different vocabulary is expected. A tull display of lexical behaviour for the Zone F languages is summarized in Table f. 26

Table +26 Toisal mumber of language-specific vocahulary in Zone F linguisic groups

| Language (group) | Identifying lexemes | Language (group) | Identifying lexemes |
| :---: | :---: | :---: | :---: |
| F21b,c (-Ntuzu, -Kıya) | 13 | NL (F21, F22, F24, F31) | 4 |
| F21a,b.c (KıSukuma) ${ }^{43}$ | 20 | NR (F21, F22.F24, F31. F32) | 8 |
| $F 21+F 22 \mathrm{~b}$ (KıSukuma2) | 16 | $\begin{aligned} & \text { Zone F (F10, F21, F22, F23, } \\ & \text { F24,F25,F31,F32,F33,F34) } \end{aligned}$ | 16 |
| F22a,d,e (KıNyamweezi) | 19 | F31/F32 | 15 |
| F23a.b (-Siloombo, -Yoombe) | 74 | F24/F31/F32 | 1 |
| F31a,b (-Ushoola, -Ilaamba C) | 39 | F33/F34 (-Mbuwe, -1Rangi) | 18 |
| F24 (KIKıImbu) | 39 | F34 (KeeMbuwe) | 53 |
| SN ((KiSukuma2 + KINyamweezi) | 21 | F33 KiiRangi) | 42 |
| Ar (GiAhi, Girwana) | 7 | F23c (KiLoongo) | 73 |
| F31a,b,c (KıniLaamba) | 27 | F25 (ICIWoungo) | 79 |
| F32 (KIRImi) | 53 | F10 (KiBeende) | 91 |
| NM (F21. F22, F24) | 4 |  |  |

[^103]Any isolation of dialects from their sister languages increases their distance as they innovate and borrow differently, resulting in the emergence of new, different languages with an obviously different linguistic evolution, and a heritage from a different proto language. And it is this subtle difference of innovation and contact with other languages which divides the Bantu languages into zones (geographical), languages and dialects (linguistic).

If only the highest tigures of unique vocabulary are taken as a first step, then these are 91 (F10-KiBeende), 79 (F25 - iCrWuOngo), 74 (F23a,b - shared between SiSiloombo and SiYoombe), and 73 (F23c KiLoongo). Incidently, these are the same languages which did not fit properly in the lexicostatistically based linguistic tree for Zone F because of their relatively lower percentages of shared vocabulary with the rest of Zone $F$ languages. As a second step, other high figures of interest are 53 (F34-KeeMbuwe), 53 (F32 - KIRImi) and 42 (F33 - KiiRangi). As a rule of thumb, it seems true that, if a language belongs to a group. its higher count of unique vocabulary implies questionable membership in that group. In this case, the membership of KiBeende, SiSiloombo and SiYoombe, KiLoongo, ICrWuUngu, KeeMbuwe and KïRangi is questionable or simply not genetic because of their higher unique stock. However, of these. KeeMbuwe and KiiRangi are closest to the remaining members of Zone F because they have fewer exceptions.

On the other hand, higher counts of shared uniquely created vocabulary amony two or more languages or dialects is indicative of a common history between them. In other words, when
linguistically viable groups share fewer unique innovations (whether as creations or areal words), then they are unlikely to belong to one immediate genetic tree. Their similarity may be only areal. This is best illustrated by the counts of least shared vocabulary in KIKirmbu, KInILaamba and KIRImi as one group, sharing only one word. That word is also found in neighbouring languages, therefore making any similarity between these three languages only areal. Another illustrative figure is 7 words shared between GiAhi and GIRwana Since these two dialects do not form a final node in their group, then their genetic position within Zone $\mathbf{F}$ is not the issue here, because they are part of larger KIRImi. What the 7 words tell us is the existence of a significant relationship between the two of them as members of a larger group. When they combine with YinaMunipafi to form KiRImi, the number of shared vocabulary between them is 53 unique words. This is one of the highest figures indicating genetic cohesion without question.

Because of the first scenario of high numbers of unique vocabulary in single languages indicating non-membership, the following languages are not discussed. Only their vocabulary is given, as members of geographical Zone $F$ rather than genetic Zone $F$
4.2.1.2.200ther gromps: KeeMbuve
(176) KeeMbuwe unique vocabulary ( 53 words)
heared mbulo
cattle vi-maka chief mo-suungati
clay affer tomorrow o-keeye

```
dog diyo
doze 0-jaaja
drrck kI-dako/vi-dako
grandfather maame
grouhdl (cultivated). farm waala
hate, detest o-sooca
humt 0-loomba
increase, make greater 0-duumaa
increctse o-swamnia
jctw (bonc) D-kaasa
jcalousy' kI-feeya, kI-feya
kidhey g-kosaa\etakosa
leave, go away o-ferenka
lencl, borrose o-taagea
milk masii
monthktill mw-eembI
mave/ mo-noku (F22b i-noku; F3la. F31b noku; F22a i-noonku: F32a jeku; F32c nceku)
new kI-fefe
penis kIva
pig j-kamba
pigeon (kind of) ke-rukwa
pinch. make narrow o-dida
pil, hole-siimbo derivation: < PB *-cImb- 'dig'
pool, pond/ki-tenge geri
preğuncy mo-kova
pull, cirag eo-kurya
return o-saaloka
river mo-fulo
rooster; cock n-sesero
 r7", 0-feega
sell o-ta
sheep o-risa
.hic/d gaamboda: borrowing Iraqw gaamboot
shwer o-siingisa
singe o-reerya
s/aughter -kera
shkai/ 0-kalava
smff. smell oul o-ndu\inta
speak o-loseka
stick mo-resa
nveat biro
```

```
termite mekese
tomorros' loovi
IF}\mathrm{ weseererya
arinate o-sumaa < PB *-cub- urinate'? (cf E55 ku-maa)
urime ma-suma < PB *-cuba "urine'? (cf E55 ma-umao)
well (in) soola
work as a masom o-jija
zebra n-dako ya i-sake 'donkey of the bush, i.e. wild donkey'
4.2.1.2.21 Other groups: KiiRagsi
(177) KiiRangi unique vocabulary (42 words)
armpil ki-flesu
clos after tomorrow IUvirIrya
clog kuri also found in Seuta. Arusha (Ehret p.c.): loan Maasai ol-kurii
clust, clond of chust i-ruri cf Iraqw/Bununge teri `dust, earth' (Nurse 1979b 515)
embrace ko-kwaturira
fecolhers, fur baaera< G60 ama-gala?
finger i-maamba
gave ko-toola cf G42d kutoa "give, produce, remove"?
gramlfather baaba semantic shift: < PB *-baaba father'
hate, cletest ku-soula
hum ko-sakaata < Barbaig fagata search for, hunt' cf PB *-cak- 'search for, chase'
increave ko-mema
jectonsy i-yrsm
kree i-coomero of G60 -fugamilo?
kreel kU-cwaama < cugama < -tugama (cf G60 -fugama `kneel')
k7ww ko-taanga
lecre, go cnvay ko-roka < G40 kutoka leave'?
mosquito uno
mave/mu-kufo
ontside weerwi
pir, hole I-duundu (also used for 'well')
river i- \betaote
sa/t saangasa
.e/l ko-culuca (cf F2lo gU-suluja 'to trade')
sharp (he) ko-kola
shave ku-kera extension of meaning. < PB *ked- 'cut'
sheep muundi
```

```
viff ko-cekesa (cf gusegeesa to separate butter from milk by shaking, especially in a
calabash')
shail i-tambaala Seuta term (Ehret p.c.)
smeeze ku-va maa\inta
smiff. smell out ku-tahya
spear j-koongo
thigh (human) ra-awa/ma-awa
thigh (cmumal) kr-j0mbolo
tomcat (half-wild) i-hulumi
fortoise ki-simantohe
Iry ko-yeva
wolk ko-doma
word i-saare appears in Sabaki (Ehret, p.c.)
yonwh kw-aasama (gape')
zehru/n-jae E46 n-jage, EJ40-n-\intaye/-n-cage/n-zage/n-zagi/n-jagi: EJ25, E52, E54b n-jagi
(cf Iraqw dakeet (Sg), daket (PI)
```

+2.12 .22 Other groups: KiLoongo
(178) KiLoongo unique vocabulary (73 words)
are n-seef fahamatur (fruit) i-hiise
hark of at tree i-ßaajgwa
hect ku-teela Rutara
hlood $\beta$ waamba Rutara
horrow ku-tiiza
hrowher, relaive mu-zaale of PB *-biada cousin'
hush i-luuggu
hutlocks: i-buunu
cease, finish ku-hwa
chicf, king mu-kama [Rutara], DJ64, EJ25, [EJ40] mu-kama
climb, ascend/ku-hanama
cow e-n-te Rutara cf Proto Eastern Nilotic *-knten ‘cow'? (Ehret 1971)
coward mu-tiini derivation PB *-trin- 'fear, run away'
crocodile e-nsaambi (F23b nsaambi)
durkness e-n-ziimbazi
claylime i-haangwe
deny kw-aagga Rutara
c/o ku-zila
finger lu-kumu General Great Lakes term
fly (housc) e-n-sohela cf F2Ic sohela 'small, blood-sucking flies which pester cows'
grandmother kaaka Restriction of meaning, $<\mathrm{PB}$ *-kaaka grandparent
grect, powerfil, big -haagge found in Rutara
ground (culfinated) e-n-saambo
hiair i-soke appears in Rutara
hide ku-seleka Rutara
hushand i $\beta$ a ( F 10 i $\beta \mathrm{a}$ )
infoxicated (ger) ku-tamiila
jus (home) eemba
lamp e-j-kaanzi
lecu (hecome): grow thin kw-aanuka
leopard e-n-zumula
lie clown ku-lyaama Rutara
lient e-tj-gaanza Rutara
matiee i-po
malc i-seeza/ma-seeza Great Lakes
medicine, remedy mu- $\beta$ azi
mother maaha
neck bica Rutara
might cilo Rutara -kilo/-cilo
path mhaanda Rutara
pig ce-m-punu Rutara
porridge (stiff) o- $\beta$ ulo
press out (oil seed, sugur cane) ku-kaanza cf F2I c -kaanza extract. usually seeds. from a
plant/fruit like a cucumber'
quarre/ kwi-izumagula
rat mu-dolo
rimoceros ee-ŋ-kula Rutara
river mu-nona (cf F21c anona 'ravine, especially with fast flowing water'
veed mbi $\beta$ o of $\mathrm{F} 2 \mathrm{lc}-\beta \mathrm{r} \beta \mathrm{a}$ plant seeds by throwing and scattering
viverer, (his her) mu-paaja
satuder. accuse falsely, oflen secretly ku-ßeehela
skaghter ku- $\beta$ aaga (F23b ku- $\beta$ aaga; F2lc gu- $\beta$ aaga to flay an animal')
sleep ku-lyama Rutara
smoke mu-hilinka
vail e-foonga
vrenght, power maani (cf G42d manii 'sperm'?)
stutter ku-titihaza
sweat e-mpiita (F|0 kafita)

```
tears ma-lila derivation< PB *-dId- 'cry`
think, imagine ku-teekuza
thirst i-liho
fick (of cartle or dog) ee-m-bala\betaala
tomcat (half-wild) mu-goomba
lomorrow лeefca Rutara
urime ee-gkali Rutara
vomil ku-tanaka Rutara
walk (tcke a) ku-tuumbagila
wovh (hands) ku-naaßa of G42d -nawa wash hands'
whistling lu-culizo
who oha
y(avn kw-iyayamula
young mam mu-sigazi Rutara
zebra ee-n-tulege
4.2.1.2.23 Orhergronps: ICIWOUmgU
(179) ICIWUU\gU (79 words)
ashes i-twitwi
avk for ko-leegga
crrow 0-n-duonda
banana -dizi cf G42d n-dizi banana'
buthe k0-crInda
becuuiful i-noonu extension of meaning, PB *-non- became fat', cf F2! -nonu 'sweet
bife ko-wawa
blonel o-laanda
charm (especially to ensure wife's fodelity) ('t) i-nuumbo
chicf. king mweene
clould-kuombr
cobra I-hoogo
conurtyardi-saala
crawl, creep k0-sala
crocodile 1-n-doolo
day afler tomorrow isikwII\je
```

```
defecate k%-k0-pa (k\sigma- insertion and double infinitive su: why?)
do ko-loonga
dwe/l ko-kw-ikala (double infinitive?)
face downnurds ko-kw-Inama (double infinitive?)
father-in-law mother-in-/aw kayeemba
fence, enclomure lo-waya
fmger kaa-y-kono derivation using diminutive ka- < PB *-kono 'hand, arm>
fuggernaili-nIIygwa
fly (homse) i-sangaazi
focmm i-povu (of soap): borrowing to enrich language, since ifuul0<PB *-pudo is for the rest
of other types of foams.
food supply for a joumey 1-n-souma (cf F21c -fuma/-suma obtain/buy food, usually from
a distant place after a shortage or famine in one's house')
fully developed}(he) ku-kw-eenjuka (double intinitive?
go ko-waala
grasx, reeds i-sote/ma-sote
grind cocrse/y ko-sigina (cf F2 1c -figma 'grind finely and thoroughly')
ground/(cultivated) caalo (cf F2Ic caalo 'village, land, district country')
hervy, serious, chul/ i-kopaavu
humhlred I-mya (F24b, F33, G42d mia hundred')
ill (he).groum ku-wiIna
itch k0-jlegela (cf F24b kujegela; F33 kuneera; F34, E74 and some others oneera)
kil/ kv-komaayga extension of meaning, < PB *-kom- hit with a hammer*
kruel ko-laamba
knife 0-m-pyaano 'knife used by men only' (cisu 'knife for women')
lake, pool, pond 0-lu-kuwa
kean (become); grow thinku-topa
leg. foot I-crnama < PB *-yama 'meat'? Corridor
lick (i%) kU-myaanda
lie onl onc's back ku-kw-anzIka (double infinitive?)
light, sky I-kuombr
lion t-saama Corridor
/isten kU-kw-Itvikrja (double infinitive?)
look cround kU-vwaamba
lonse I-suOmi
maize i-saka/a-ma-saka (F10 sisaka/fisaka)
```

[^104]```
    medicine I-kwI (ct' tree I-kwI, < PB *-kUI 'firewood')
    monkey I-m-bwaaji
    mould poltery ko-maata, (also elsewhere in east Africa)
    iknel kI-pwawaambwe
    open mouth wicle, yonon ko-kw-asama (double infinitive')
pot, vexse/ I-cI-Indo/ I-vi-indo
protect by charm (medicine) ko-tema
(puarre/ko-ku-dwa (double infinitive?)
quiet (he) ku-kw-iinala (double infinitive?)
river U-m-baana
roor i-kwaazo
scorpion 1-j-gogla
securch for ku-vwaamba
seize ko-lema
sell ku-kaja
ser (of the sum) kw-iila /g/ loss, (cf F24b kU-gw-IIla; F3la w-eela: F3Ib -ila; F33 kw-iira:
F34 o-w-era, F2lc gw-rlä; (cfF21, F22a-ywa<PB -gu- fall')
shame. disgrace yaazi
shetve ko-seena
sick mbiInu
vkin (of persom) [-I-gweembe
voot a-ma-twiitwi (cf itwiti 'ashes')
speak ko-tela
spear 0-n-du0nda
spread ko-kw-aala (double infinitive?)
spread ahroad (bu), become generally known ko-kw-eenela (double infinitive")
stick soomi
rake, curry kt-seenda
faste ko-myaanda
thugh (human antuct) I0-paamba/r-m-baamba
tie, fasten ko-jepa
(omcat (half-wild) i-waka
tree i-kwi
my kU-paaja
walk ko-wala
wall 0-Io-woumba
wash, take a hath ku-ciinda
wet (get) ko-kolowa (double infinitive?)
wind U-mweya (cf F21 paga (< mu-yaga), Rutara mu-yaga 'wind' and *g loss in F25
withhold from ko-kw-iima (double infinitive?)
```

F25 has some aftinity with F33 and F34 in losing *g unless it is pre-nasalized as in -lowa (F25/F33), -lova (F34) < *-dog- 'bewitch' and Ingaanga (F25). ŋkaanga (F33, F34) < * kanga 'guinea fowl'

## +.2.1.2.24 (Other groups: KiBende

(180) KiBende unique vocabulary (91 words)

```
cuccustomed (get) ku-beelela
unimal i-fweele
ushes i-fuundu/ma-fuundu (F22a matuunde)
ask for ku-seeya
bahoon, momkey i-jaanda/ma-jaanda
base of tree-trumk i-siindo
bathe, wash hancls ku-лaaya
heads }\boldsymbol{\betau}-\textrm{kasi}(< PB *-kadi female'?
bire ku-ceta
blood malaso < PB *-lac 'to shoot with arrow'
body si-taambo/fi-taambo
brother. relutive wa muyana
huild ku-jußaka cf PB *-bak- build
bush i-siyo
calahash lu-siiggi/n-siingi
chew i-tuundu
c/ourd i-kuusi/ma-kuusi
coumt kts-paanda
cover ku-fimbila
dcyy Iwisye (F21c lwISI used mainly in lwISI lweene that day) (<*-yICI day daylight.
found mainly in Zones A. B, C?
clay after tomorrow before yesterday Iwiisye luundi
deny. refuse, say mo ku-tuna
dig ku-saßa
distric, province, coumry si-huyo
dry(vi). wet out tradry ku-\gamma-anika (morphological innovation or retention of earlier PB form.
like in F25, by adding a syllable in verbs, the infinitive kv-?)
```

```
dinst, cloul of chus/ lu-fuundu/ma-fuundu (cf ifuundu/mafuundu'ashes', difference of class
marker to show difference)
feathers ma-fwumbu
fill ku-buumba
fish i-seembe/ma-seembe
frog ka-saßa
goar (he) li-kaßooloßoolo ('the strutter of its testicles/penis'): lexical extension < PB *-bodo
"penis'
grass ma-\betaano
ground (cultivated) i- }\beta\mathrm{ ala
groel, ligh poryilge m-pana
hair (white, grey) g-kote
huthd (right) kweene
hearl mweeYo
hetwy, serions, dull i-תwaamu
hill, moumtain mu-sosi/mi-sosi Common Great Lakes, loan from Nilo-Saharan, diagnostic
term of Great Lakes subgroup (Schoenbrun 1997, Ehret p c.)
hold. arrest ku-niүa
hyemsi-tama
kill kw-ihaaya (D28 -rhaga)
king mw-aami cf DJ60 mw-aami 'chief, king'
leak, ooze ku-sooßa
lend horrow ku-tiila
look after graing cattle ku-kema
love, wam ku-gomwa
lmyg i-poombo/ma-poombo (<PB *-puUpu wind ?')
muze si-saka/ti-saka (nsaka/masaka mullet' < PB *-caka 'bush'?) (D28 -saka. F25
isaka/masaka 'maize')
migrate ko-totooka (7V?)
mcaxquito ka-laamba/tu-laamba
mave/mu-лоло/mi-лоло
pack, flock, group mu-leya
pipe i-kuuyka/mi-kuugka
pol, vessel: earthern cooking por 0-kono
pour clway ku-yona
protecr by charm (mredicine) ku-liisiimpa, ku-siimpa
pu// ku-bwiita
quarre/ ku-soola (F22d -soola; EJI6 kusola)
rest, take at holiday ku-tamuka
rerurn ku-heleela
rum, ku-kilima
```

```
veize ku-\rhoiya
seven dwi
sew ku-laanda
sharpen ku-tyasya
short -tofu
*kin rind (of fruit) i-papa
vreeze ku-tisila
speak ku-teenda
spil ku-tema
spoi/ ku-yonona
vread ku-ganika, ku-\gammaaansa innovation or retention of -ga-?
star lu-taaygwa/n-taa\etagwa < PB *-tangUa 'sun' (Zones H. L. K. R)
stick i-ntußa
strength, power manaya
stmmb/e ku-ksuntuka
swea/ kafita (F23c)
wweet-lyoohile
thucket i-huumpu
thugh (human cmimal) i-taamba/ma-taamba
thirst g-kaa\etagu (cf F2 1c jilaango 'desire (thirst) for things one does not deserve')
tie, faxlem ku-haamba, ku-haambilila
romorrow yesterclay isoneka
my ku-liingisya
welk' (take a) ku-lyaata
wel// lu-mato (cf F21c -mata plaster by throwing from a distance. usually watery mud)
wer masoola
wet (get) ku-\rhoaa\rhoa
wild musaya
work (il) musika
```


### 4.2.1.3 Contribution of non-Bantu languages to Zone $F$

In the following examples of shared vocabulary, there are clear-cut cases of borrowing from and to either direction, on the one hand, and the obscure ones on the other (for a fuller treatment of Cushitic and Nilotic loans in Bantu languages, see Ehret 1971. 1980: Nurse 1979b; for Arabic loans, see Bosha 1993)
t.2.1.3.1 C'onuributions of nom-Bantu latugnages: Irache

The three words below are from Bantu without any doubt, and their significance lies in the obvious fact that speakers of different languages have always interacted with their neighbours, borrowing words from each other in the process. The number of words borrowed depend on the perceived gaps and reasons for borrowing by the recipient languages ${ }^{+}$speakers. When only oral history is available, in cases like Bantu where speakers of different languages from language families have interacted for millennia, tracing the sources of those words becomes difficult.
bed ki-taara loan, PB *-tada 'platform
bottle -cupa, loan. KiSwahili -cupa
sword-panga. Ioan, KiSwahili -panga

It is difficult to decide whether the following words are native to Iraqw. loans from the languages listed after them, or from sources other than those shown
gras for calle manongi (f) manonga (f) F2Ic ma-noogga name of river, meaning "shells" The river divides Tabora and Shinyanga regions and its valley empties its water in the Wembere swamp. Cattle graze in the valley and drink from the river.
hare kwa?angw (m), kwa?eeri (n) F2lc gwana-kaagva hare, mainly used in personifications in folklore', also a female proper name kaapra, with the whole name for the 'hare' meaning 'son of Kaajwa'. Is it a loan from Iraqw?

The following group of words are borrowed by the Bantu languages. However, for some like 'maternal uncle', 'pestle' the direction of borrowing is indeterminate, since Southern Cushitic might have borrowed from Bantu. Many of the examples from JinaKnya are compared mainly with Iraqw vocabuiary by Mous (1993) and Maghway (1995):
hecuns loositofo (f) loosi (f) F34 loosi
hull, biggesy it herd sidiimé NSgfi sidimedu? Pln F21c Jadiima 'biggest bull in herd clarkness giwti NCfi F21 giti, F24 kiti 'darkness' (ct PB *-kiit- 'screen')
kid, kamh deel(a)moo NSgti ${ }^{51}$. deeláy Plm F2Ic ndilaana 'infant calf ${ }^{-}$
maternal uncle maamay (m) maami 7 i ( n ) F 21 maami uncle (who is by definition, maternal)'
This word in KiSukuma can be posited to have come from two Proto Bantu words mat(ma) 'mother' and -d/omi 'male, man' to form the compound maa(mat)-/ $/ m m$ 'male mother' or 'brother of my mother' In oRuHaya, the second stage before a portmanteau stage is reached is relevant: marumi maternal uncle'. This word is very similar in context and meaning to 'aunt', which in Bantu refers to father's sister only. In KiSukuma, as in many of the Bantu languages surveyed, it is composed of two words: seetggi<*-ce '(his) father' and $-k c^{5 *}$ 'wife (female)', becoming 'female father' or 'female person born of same parents as my father'. The other zones in Eastern Africa indicate that the concept is widely distributed, since many members in $\mathrm{E}, \mathrm{E}, \mathrm{G}, \mathrm{M}, \mathrm{N}$, and P also use a two-word compound to represent 'aunt', as in oLuNyankole which better represents this concept of referring exclusively to father's sister ife 'his) father' and $\eta$-kcazi 'female', becoming ifeghazi 'paternal aunt' (cff KiSwahili shomgozi 'aunt'. Because of this likelihood of Bantu origin, both the JinaKirya macami and seepgi are suspicious as original Nilotic words. Since JinaKirya does not have -/tumi for 'male, and instead has -fiume, it might be a loan from EJ20 or EJ40 where that shape is found. For instance, as an analogy from madmay, it is unlikely that the following reconstruction for Proto Southern Nilotic is correct: $s \varepsilon(\varepsilon) \eta k \varepsilon$ 'paternal aunt' (Rottland

[^105] to mean 'another kind of father'

1989:221), or even Iraqw emga father's sister' < Proto Southern Cushitic *?ap- father's sister' (Ehret 1980:288).
pestle, mortar stick musa (m), muse (f) cf PB *-yIncI 'pestle', F2Ic gwilss
piece of soil with grass kinti (f), kinta (t) F2 Ic Ikiindo 'dry clod of earth'
pole (for shuthing cuttle enclosurc) kaangarmo (m), kaangara (f) F21c $\beta$-kaaggala short poles cut to fit the width of a bed used as a mesh onto which a cow skin or other skins can be spread, for sleeping purposes'
Keather hag (on clonkey) may Joodu F2 Ic [uUda/mi-fuoda 'leather bag'
male cmimal yaqaamba Zone F and some other central Tanzania Bantu languages bull'
seal, chair: place to sil kitaanw NSgm kiteeri? Pln F3| and some other Bantu languages ktteengo 'seat, chair'
vide dish naanu F2 1c nani relish, which can be from plants (all kinds of vegetables) or animals (all types of meat) as a regular, complementary accompaniment to a main food made from grain
sumser, evening tsiindi NSgfi tsiindoo Pln F21 mamdr evening' sweer potatoes kasiitofo (f) kasiis (f) F23 -ziizi 'sweet potato' (cf KiSwahili kiazi).

## +.2.1.3.2 (oumibutions of mon-Bantul languagex: Barhaig ${ }^{\text {s }}$

The loan words in Bantu languages from the list below are Barbaig, and some Bantu language varieties like JinaKnya have borrowed them. Those from Cushitic in Barbaig might have been borrowed by the Bantu languages either directly from Cushitic, or indirectly from Barbaig, as in the case of losi beans'. from Cushitic, which might have been borrowed by KiiRangi from Barbaig because of its shape, rather than the Iraqw loositofo (f) or loosi ( f ). Most of these loan words retain their morphology without being assigned to the Bantu noun class system, as most of the examples below show.
calf of leg hawda cf saluta/saluda in KIKirmbu, KiSukuma and KiNyamweezi?

[^106]ccilf of cow mayd (sg), muhog ( pl ) F2 Ic muUga heifer' cow ded(sg) dug ( pl ) F2lc drida old female cow
dust binjand F2Ic gufaanda 'powder, mainly medicinal'
horse diged Ulay 'European donkey', Ulay trom KiSwahili. (/haya Europe ${ }^{-}$
hmmp hukta KiSukuma and KiNyamweezi luguku < Proto Southern Nilotic *yuuk (*yu:k) (Ehret 1971:96) 'cow's hump'
humi fagata E46, E62d (and E60 generally), F33, Hadza, loan from Cushitic, as in Iraqw tagaadu: Alagwa takaat: Buru!ge taakat
look ufier grazing caute adabiw F2Ic gu-labiila look after grazing cattic for another for a short period before the substantive herder takes over'
migrate, mone avety balag F21c lu-baga 'temporal, grazing camp obtained atter migrating from the usual place of domicile'
mother iya F21b iya "mother'
poi, vessel dahuda F2 Ic -dahula scoop and serve, mainly relish, from a cooking pot to a smaller, serving bowl/vessel'
shick igambed F34 gaamboda: borrowing < Barbaig (Iraqw gamboot also borrowed from Datoog)
rail fumyand F21c sIIjwaanda 'bushy, bull's tail-end used for dances and ritual' rortoise gumald F2 Ic gulumaadi tortoise'

Because of their shape, the words below are borrowed from Bantu, with Barbaig affixes attached to the Bantu roots:

> hoc magemjland (sg), magembojig (pl) PB *-gembe 'hoe'
> spoon matingod PB *-yiko 'spoon'
> hed bulalida PB *-daad- sleep' cf-didI bed'

On the other hand, the following words are most likely borrowed through KiSwahili generally. Some of them are from other Bantu languages other than KiSwahili, with their origin in Proto Bantu:
(186) Possible Bantu loans in Barbaig
bottle cupajand (sg), cupajeg ( pl ) G42d cupa bottle' hread mkat G42d mkate loaf of bread'
chicef mtamid F21, F22, F24, G42d m-temi chief exctminc apima G42d -pima measure
fish samak G42 samaki 'fish' $<$ Arabic samak 'fish' highucay balbala G42d barabara road'
heok (for fishing) ndoan G42 ndoana 'hook'
hunger jalod PB *-jada 'hunger'
/ithe. whiteravh cokaa G42d cokaa lime, whitewash' < English 'chalk'
petl' alipana, gilipanda G42-lipa $<\mathrm{PB}^{*}$-dIp- "pay
pet (metal) kopajanda (sg), kopajega (pl) G42 kopo 'small tin' < Portuguese copo cup
pnimp bomba G42 bomba pump, water tap' < English 'pump
reor wemb G42d wembe 'razor blade'
rede/kisomand G42d-soma read'
salt mujod PB *-mufu
size, measure gipim G42d kipimo 'size, measure'
sprimg, machiore mafineda haw G42 mashine < English machine
suord panga G42d panga matchet ${ }^{\prime}$
rcach, imstrucr go-fundif G42d ku-fundisha < (cf F2Ic regular infinitive ge-)
(omento pan G42d fana
(av*) иинјi G42d mii
whiteman msuggajanda G42d mzungu 'European'

While some of the above words were relatively easy to trace, the following show some close
affinity to Bantu morphologically, although they show up as Barbaig
(187) Possible loans in Barbaig from Bantu and other obscure/unknown sources
be, hecome huwa cf PB *-ba
hour, cathoe malambod cf F21/F22/F24/F31/F32 -lambo; EJ25b -rambo pool. pond
cal nyawud onomatopoeic, as in most Bantu languages
fierce, sharp yanipa cf PB *-kadrp- be sharp'
fitth madakalgajega cf F22c. F23a,b ma-takala: F23c bi-takala; F24 n-taxalala, efF3la malagala; G65 a-ma-kakala; G61 a-ma-xaxala PB *-taka soil
grote, scrape far, fara cf PB *-pad- scrape'
$g^{\prime \prime \prime}$ mundischand of F22 F24 muduji, F25 I-muduusi, F10 munduusi, F22e mundouzi, F3la muduvzi
motrining Joka of F31 suka 'mourning'
old tines, the past garrai cf PB *-kale
pestle mosida of PB *-yrncr
vevetl isbas < Proto Southern Nilotic *isap, a loan from Eastern Cushitic *tizzb- (Ehret 1971) (cf Arabic sabaa(t) seven').
soumd, cry fokjand cf F31 suka 'mourning'

From the foregoing lists, the vocabulary from Iraqw and Barbaig indicates that some words can be traced quite easily, while for others it is difficult to know whether their origin is Bantu or non-Bantu because they are claimed by both as native, as in the case of sheep which is Proto Bantu *-kodo and may have some bearing with the Central Sudanic *-(k)ondri. although *-kolo had not been traced to any non-Bantu source (Ehret $1968: 217$ ). With the passage of time and collection of more data however, some of the words can be ascerained. as is the case with *kodo and *-kondri (Ehret 2001, p.c.). For some, tracing their origins remains illusive. This goes to show that proto languages can be multi-genetic (for a discussion of the impact of the nature and length of contact on loan words, see Thomason and Kaufman (1988))

### 4.2.2 Conclusions: Lexical status of Zone $\mathbf{F}$ members from qualitative evidence

The data and discussions of qualitative evidence in KISukuma. KINyamweezi and SiSuumbwa, on the one hand, and other Zone F languages on the other, reveal the following general, tentative conclusions:
(1) The dialects as concrete linguistic units smaller than languages are true historical representations of differentiation due to linguistic splits. If they are dialects, they normally
share the highest number of words within a language and they can be represented in a linguistic tree as one node. They can thus be posited as genetically related at that micro level to form the languages we know. Beyond that, uncertainties abound. This is true of the KrSukuma group, where KimunaSukuma, GinaNtuzu and JinaKirya form a coherent group as one would expect. For KINyamweezi. KIDakama behaves more like a dialect of KISukuma in significant ways, leaving only KINyanyeembe, KIKonoongo and SiGalagaanza in the KiNyamweezi group. In SiSuumbwa. SiSiloombo and SiYoombe unite genetically. while KiLoongo departs from the two in important ways. Lexically, the historical affiliation of $\mathrm{F} 23 \mathrm{a}, \mathrm{b}$ (SiSiloombo and SiYoombe) with neighbouring languages is difficult to ascertain precisely, especially between DJ60 and EJ20, as the above graphs show, while F23c's (KiLoongo's) affiliation is clear: it does not belong in Zone DJ60. It is a member of EJ20 or Rutara generally. Internal dialectal unity is also solid in the separate KiniLaamba, KIRImi and KiKirmbu groups.

On the other hand. ICiWuUngu, KiiRangi. KeeMbuwe and KiBende each form a group of its own because their innovations are quite different from the rest of Zone F languages. indicated also by the relatively lower shared lexical percentages. Because of forming their own groups, analysis does not proceed any farther as an indication that they do not immediately belong to the larger group, and therefore their analysis deserves a different project altogether

For the remaining languages in Zone F, namely F21, F22, F24, F31 and F32, it is true that as one goes higher up in the linguistic tree, incorporating more dialects and then languages, the internal relationship of the expanding groups begins to be clearly due to geographical proximity since unity becomes progressively weaker and essentially areal.

For instance, F21/F22/F23 is not a historically valid group because F23 does not belong there. lexically. F23 belongs to either EJ20 or DJ60. On the other hand, F21 and F22 share many lexical innovations, both unique creations and areal, making it a better group historically. although it is difficult to say whether they are dialects of one language as Nurse (1999:10) suggests, most probably quoting conventional wisdom. Some significant differences exist language-internally, as shown by their unique celations and areal vocabulary configurations. as elaborated below. Such configurational differences between F23 and F21/F22 suggest a different genesis, since geographical proximity or distance of related languages does not signiticantly erode genetic affiliation. This is strongly supported by the case of F23c (KiLoongo) which has maintained its genetic athliation with EJ20 despite being engulfed by F21. Physical separation of dialects or languages does not therefore significantly affect their former historical path even at their lexical level, although the evolutionary path is normally clearer phonologically.

As to genetic similarity between F21 and F22, wo possibilities can be advanced: first, either the languages were one initially, and an earlier divergence differentiated them as separate
languages, athough the speakers maintained contact by being resident in contiguous spaces: second, though descended from the same Proto Bantu, they might have been different languages which, by convergence, were made more similar by contact. Nurse and Philippson (1980:38-9) describe both the long and short range mutual influence between speakers of neighbouring languages where even languages from different families display some lexical similarities.
(2) There is fuzziness of affiliation at higher levels in the linguistic tree (See Figure +.if below). Three nodes shed some important light on the lexical status of Zone F the highest node in our discussion. These three nodes are NM formed by three languages (F21 ( KISukuma), F22 (KINyamweezi) and F24 (KiKimbou)); node NL, composed of F21, F22. F24, with the addition of F31 (KiniLaamba)); and node NR, which includes the preceding group, NL, (F21, F22, F24, F31) with the addition of F32 (KIRImi)

The members of node NM, that is, F21 (KISukuma), and, F22 (KINyamweezi), F24 (KiKimbu) do not share a single unique lexical creation as a diagnostic innovation out of the 4 possibilities identified indicating that their unity is not necessarily genetic The linguistic tree in Fighre +16 implies that they descended from only one node up the tree. an assumption which is not supported by lexical innovation. Likewise, the members of node NL (F21, F22, F24, F31) do not share any unique lexical innovation apart from areal vocabulary On the other hand. Zone F displays three shared innovations only out of the 17 identitied.

automatic weak or absent genetic relationship with a larger group (e g. Zone F) into which they purport to belong

Tithle +27 Lexical immentions in Zone Fi and genetic affiliation

| Linguistic node and \% of shared vocabulary | Words innovated in Zone F |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total \# of words | \# of Unique creations | \% of Unique creations | \# of Areal vocabuiary | \% of areal vocabulary |
| F21b, c 90\% | 14 | 4 | 29 | 10 | 71 |
| F21 89\% | 13 | 4 | 31 | 9 | 69 |
| F21/F22b 86\% | 14 | 3 | 21 | 13 | 79 |
| F22a,d.e $84 \%$ | 24 | 3 | 12.5 | 16 | 87.5 |
| F23a,b 84\% | 74 | 11 | 15 | 63 | 85 |
| F31a,b 83\% | 31 | 13 | 42 | 18 | 58 |
| F24 82\% | 39 | 13 | 33 | 26 | 67 |
| SN (F21/F22) $81 \%$ | 21 | 5 | 24 | 16 | 76 |
| $\operatorname{Ar}$ (F32a,b) 80\% | 7 | 3 | 43 | 4 | 57 |
| F31a.b.c 78\% | 25 | 10 | 40 | 15 | 60 |
| F32 78\% | 49 | 10 | 20 | 39 | 80 |
| NM (F21/22/24) | 4 | 0 | 0 | 4 | 100* |
| $\begin{array}{r} \text { NL (F21/22/24/31) } \\ 76 \% \end{array}$ | 4 | $3 ?$ | 75? | 1 | 257** |
| $\begin{array}{r} \text { NR }(F 21 / 22 / 24 / 31 \\ / 32) 72 \% \end{array}$ | 7 | 0 | 0 | 7 | $100^{*}$ |
| Zone F | 16 | $1 ?$ | $6 ?$ | 18 | 94 |

Two interpretations can be advanced here: firstly, such high percentages may indicate dialects or languages which are internally less cohesive genetically because of dominant external
lexical interference or because of unrelated dialects or languages converging into one unit, as in the case of NM (F21 (KISukuma). F22 (KINyamweezi) and F24 (KIKIImbu): NL (F21, F22, F24, and F31 (KIntLaamba)), NR, (F21, F22, F24, F3land F32 (KiRimi); or Zone F

Secondly, the group may be genetically valid and cohesive internally but with heavy interference from other languages in the past as the cases of F22a/F22d/F22e, F23a/F23b and F33/F34 ${ }^{\text {54 }}$ seem to suggest. F24 also shows this interference by having more shared than unique vocabulary.

This high percentage of shared areal vocabulary is best illustrated by KINyamweezi (F22a, F22d, F22e) (87.5\%), SiSuumbwa (F23a,b) (85\%), KIRImi (80\%) and KISukuma2 (F21. F22b) (79\%) as examples of heavy interference, where the sources of that interference make tracing their history extremely difficult. The four examples, especially SiSuumbwa, are relevant because of the relatively large sample of Zone F-unique words identitied, at a total of 76 words, where only 12 or $16 \%$ of them are unique creations. At level NR (F21. F22. F24, F31, F32), unique creation is $0 \%$, suggesting weak or dubious genetic affiliation by this predominance of areal vocabulary, rendering the historicity of Zone F itself highly questionable, as it has an areal count of 15 words (or $94 \%$ ) against 1 ( $6 \%$ ) of unique inventions. On the other hand, NL (F21, F22, F24, F31) with a unique vocabulary count of

[^107]3 out 4 , and 1 areal word suggests borrowing, since such an inconsistent display may be due to the small sample of words found (4 of them), where chance can play a bigger role than in a larger sample
(3). The Zone F languages show more lexical affinity to outside groups than among themselves. This externally favourable relation is extracted from the highest cases of shared vocabulary appearing in the different groups in the graphs above. For instance, as summarized in Tahle +.28, individually, traditional KISukuma (F21) and KINyamweezi proper (F22a, F22d. F22e) do not seem to be immediately related to each other because KINyamweezi does not share significant vocabulary with Thagicu, while KISukuma does. When KIDakama extends a bridge between KISukuma and KiNyamweezi to form one group then Thagicu (Thagicu - Central Kenya languages like KiKamba and Gikuyu) disappears. But also, Thagicu shares vocabulary to a large extent with only F32, and not with F23, F24, or F31. This suggests strongly that the development of these languages before the speakers settied in their current geographical locations was not from one parent. Where only a few Thagicu traces are found, it is likely that it is the effect of inter-dialectal borrowing. which tends to spread the words from one source to surrounding neighbours. There is also a suggestion that the lexical connection between F21 and E50 (Thagicu) is historically valid. given the possibility that the area currently occupied by non-Bantu speakers like Maasai was once occupied by the Bantu. The intervention by the non-Bantu cut off the geographical continuity, leaving linguistic islands, as Nurse (1999:4) muses about the connection.

On the other hand, three groups of languages show a widespread pattern of interaction with Zone F languages. These are Ruvu (G30), East Nyanza (EJ40) and Corridor (M10/20). Vocabulary which was not inherited from Proto Bantu and which was unique for a group within Zone F suggested mainly two processes: unique creation or areal occurrence. Widespread G30 or Ruvu vocabulary was shared by the following clusters KiSukuma2, KiRImi (F32), core KinILaamba (F3la and F31b which excludes F3lc (KInIHaanzu)). Those not well represented were KiNyamweezi proper (F22a,d,e), SiSuumbwa, as well as the $\mathrm{SN}(\mathrm{F} 21 / \mathrm{F} 22)$, NM (F21/F22/F24) and NR (F21/F22/F24/F31/F32) combinations. Since these combinations are subsets of Zone F, two important points are suggested. First, the NM and NR groupings are not historically valid, since their individual languages have G30 vocabulary. If the speakers of those proto groups acquired those words as a single group before splintering into speakers of several languages, then the words would show up even in the larger, earlier groupings. Second, Ruvu (G30) vocabulary was acquired by the speakers of each individual language after the earlier groups had already split. Scenario two is unlikely. since it would require a larger agent for spreading those words. The first point suggests a plausible possibility that some of the G30 and F20/30 languages emerged from the same ancestor before they split, like the "Kati" suggested by Ehret (1994).

Such a scenario may well apply to EJ40 which shares vocabulary with all levels of KISukuma. F21/F22, F31, F32, F21/F22/F24 (NM), F21/F22/F24/F31/F32 (NR) and Zone F generally The interesting part however is that EJ40 is not shared with F24, F22 and core F31, indicating that the larger units beyond the language acquired the words through inter-dialectal
borrowing rather than from immediate genetic heritage. Likewise, MIO/20 words are found in F21, F22. F21/F22, F24, F31 and F32. On the other hand, as larger units, NM (F21/F22/F24) and NR (F21/F22/F24/F31/F32) as groups do not feature M10/20, indicating that the vocabulary is areal rather than genetic.

Table +28 Shared wocahulary heween Zone F memhers and other kanguges

| Linguistic node and \% of shared vocabulary | Largest areal vocabulary shared with | Linguistic node and \% of shared vocabulary | Largest areal vocabulary shared with |
| :---: | :---: | :---: | :---: |
| F21b, c 90\% | Thagicu (E50). East Nyanza (EJ40), Luhya (EJ30/EJ41) | $\begin{array}{r} \text { SN (F21/F22) } \\ 81 \% \end{array}$ | $\begin{aligned} & \text { F23, F24, (EJ25). } \\ & \text { DJ60 } \end{aligned}$ |
| F21 89\% | Thagicu (E50), Corridor (M10/M20), East Nyanza (EJ40) | F31a.b.c 78\% | $\begin{aligned} & \text { F24. EJ40. F25. F22e. } \\ & \text { G60 } \end{aligned}$ |
| F21/F22b 86\% | East Nyanza (EJ40) | F32 78\% | F31c. Thagicu (50). East Ruvu (G30). EJ40. Luhya |
| $\begin{array}{r} \text { F22a/F22d/F22e } \\ 84 \% \end{array}$ | $\begin{aligned} & \text { M10. F23a.bs. F24. M20. } \\ & \text { F10 } \end{aligned}$ | NM (F21/22/24) $78 \%$ | * |
| F23a,b 84\% | F23c, Rutara (EJ11-EJ14, EJ21-24), DJ60 | $\begin{array}{r} \mathrm{NL}((F 21, F 22 \\ \mathrm{F} 24, \mathrm{~F} 31) \end{array}$ | * |
| F31a,b 83\% | F24. G60 | $\begin{array}{r} \mathrm{NR} \\ (\mathrm{~F} 21 / 22 / 24 / 31 / 32) \\ 72 \% \end{array}$ | F23a,b, DJ60, EJ25b, F25, EJ40, G60, M32. P13* |
| F24 82\% | F22, F21, G61, M20 | Zone F | All Bantu zones found in East Africa: DJ, EJ, E. G, M, N. P |

- Only four, four and seven words respectively were used, and the results are only tentative in NM ( $78 \%$ ), NL ( $76 \%$ ). NR ( $72 \%$ ) because of the small number of words in areal vocabulary which makes the statistical pedantry of using a graph unnecessary, although a graph was drawn for NR, 7 words.

[^108](4). While the linguistic tree for Zone F admitted some members and rejected others, patterns observed in the past or those emerging from the current data deserve some mention. For instance, the linguistic trees in Figures 4.1 and 4.16 suggest how the branching of the different Zone F languages took place. Its configuration could be altered depending on the order in which the shared retention percentages are collapsed. In the current tree, Kinilaamba and KIRImi are not coordinate anywhere. They join further up the tree, due to KIRImi's drastic change away from the phonologically conservative KInILaamba, and therefore indicating a much earlier split and different history, if it is assumed that they formed one language in the past. The shared vocabulary between KiniLaamba and KIRImi which is not represented in the tree is indicated in Tahle +.29 , showing a unique invented vocabulary figure of $20 \%$ As advanced above, such a figure qualifies them to share a coordinate node, suggesting immediate historical branching, shown in Table +.13 with a shared retention rate of $72 \%$ However, such unity is open to question given the effect of proximity and subsequent borrowing.

Tahle 4.29 Lexical innovatuon in norles ourside the Zone Fo Iree and genertic affilianon

| Linguistic node and <br> \% of shared <br> vocabulary | Words innovated in Zone F |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |
|  | $\|c\|$ <br> Total \# <br> of words | \# of Unique <br> creations | \% of Unique <br> creations | \# of Areal <br> vocabulary | \% of areal <br> vocabulary |
| F31/F32 | 15 | 3 | 20 | 12 | 80 |
| F24/F31/F32 | 1 | 0 | 0 | 1 | $100^{*}$ |
| F33/F34 | 18 | 3 | 17 | 15 | 83 |

[^109]The proper interpretation of such a figure, which is also supported by shared unique created vocabulary, depends on whether such innovation is really genetically or areally based. Mere proximity even of languages from different language families can do a lot to change the surface contiguration of created vocabulary, an element which Nurse (1988:43) correctly characterizes as the least important form of borrowing, when a hierarchy of determinants of language similarity are considered. If such unique lexical creations are genetically based then. some drastic interference can be posited for the difference in phonological inventory and phonetic realization, like the presence of and interaction with several non-Bantu languages in the area. Both scenarios are plausible, and a preference for one over the other depends on how much evidence is available and used to justify it.

On the hand, KiiRangi and KeeMbuwe display a lower percentage of shared unique creations, although they are claimed to be very similar in the literature, including strong assertions of historical affinity by the native speakers of the two languages themselves. One explanation which is likely to be correct is contact with different non-Bantu languages at different periods with varying degrees of intensity, contributing to a different set of new vocabulary

The assumption that F24/F31/F32 (KIKimbo, KInILaamba and KIRimi) are immediately connected historically is not borne out by both the lexicostatistical and lexical figures. In fact. only one areal word joins them, indicating an unlikely genetic relationship, apart from similarity of Proto Bantu vocabulary retention and areal shared vocabulary. A genetic
connection would be shown by a higher number of shared unique lexical creations enhanced even more by the close proximity obtaining between the speakers.

### 4.3 CONCLUSION: QUANTITATIVE AND QUALITATIVE EVIDENCE IN GENETIC AFFILIATION

### 4.3.1 The lexical unity of KISukuma, KINyamweezi and SiSuumbwa

From the preceding sections, it is apparent that KISukuma, KINyamweezi and SiSuumbwa do not form a unitied linguistic group. SiSuumbwa, referring mainly to SiSiloombo and SiYoombe, is shown to belong elsewhere since its overall shared retention rate to KISukuma/KINyamweezi is $74 \%$, while the figure between KISukuma and KINyamweezi is $81 \%$, a margin which is high in this context. The $74 \%$ rate seems high because of contact, since the number of unique vocabulary proves that. KiLoongo. while geographically occupying an area between RuZinza, SiYoombe and KISukuma, with many of its speakers mixed across the whole area. does not fit in well with SiSiloombo or SiYoombe nor with KISukuma/KiNyamweezi. It shares with them some words, and departs from them in signiticant ways, with a shared retention rate of $65 \%$ to SiSiloombo/SiYoombe. and $58 \%$ to KiSukuma/KINyamweezi.

Qualitatively, SiSuumbwa is similar to both Rutara (E111-EJ14 and E121-EJ24) and Western Highlands (DJ60), although a definite taxonomy can only be contirmed when other criteria like phonology or morpho-syntax are considered. Combining lexis and phonology places

SiSuumbwa (F23a/F23b) in DJ60, the affinity to Rutara being a result of contact. On the other hand, KiLoongo (F23c) is shown to belong to Rutara exclusively. A paradox might be the low shared retention rate with oRuhaya, at $57 \%$, roughly the same rate obtaining between KiLoongo and KISukuma/KINyamweezi at $58 \%$. Isolation from Rutara for a long time accounts for such low shared rates with Rutara members as a tunction of contact with many other languages.

On the other hand. KISukuma and KINyamweezi have internal divisions which question the essence of their similarity as a pointer to genetic relationship. For instance, quantitatively. they share a retention rate of $81 \%$ of Proto Bantu vocabulary, a high tigure warranting genetic affiliation. But the KINyamweezi internal configuration excludes KiDakama whose lexical retention figure gravitates towards KiSukuma, a picture supported by the qualitative evidence as well. Phonologically, KIDakama is also isolated from core KINyamweezi (F22a. F22d, F22e). The $81 \%$ figure therefore is raw, emphasizing convergence.

### 4.3.2 Does Zone F exist lexically?

Lexically, each major group: F10, F21, F22, F23, F24, F25, F31, F32, F33 and F34 stands on its own. related to the others only by either the high retention rates from Proto Bantu words in some of them or because of inter-dialectal borrowing facilitated by many years of contact. Because most of the words in the innovations within the Zone F languages are areal. it implies therefore that the smail uniquely invented vocabulary is the most important aspect
of evidence for classification. This apparent autonomous status of each group is supported by the absence of solid shared lexical innovations among them, except a few groups at lower levels like KıSukuma/KINyamweezi. This Zone F fuzziness is illustrated well by the extreme members of the zone which are not only clearly autonomous, but also do not belong there entirely as immediate sister languages to the core group. These non-members are F10 (KiBende/KiTongwe), F23 (SiSuumbwa), F25 (ICIWuUngu). F33 (KiiRangi) and F3-4 (KeeMbutve). Two common attributes are shared by this group of languages first, a long list of unique innovations, either as loans or lexical creations not found in the rest of Zone F members, and secondly, being at the edges of the zone, although F33 and F34 are closer than the others.

It is also interesting to note that if 5 out of the 10 members of Zone $F$ do not taily with the other 5 lexically, indicating a weak grouping, then it follows that the zone cannot be called by the same name when half its membership from the original is missing.

Within the remaining 5 members, namely F21 (KiSukuma), F22 (KINyamweezi). F24 (KIKIImbu), F31 (KInILaamba) and F32 (KIRImi) and their dialects, oniy one word can be called a unique imnovation of the 7 words which isolate them (example 167). In the Zone F node, one word appears to unite them. But even this one word mu-nampalar 'old male' is doubtful, because it suggests borrowing from Southern Nilotic in one of them, then spreading to the rest, shown in (169) and in the footnote in that section. In addition, the validity of

Zone F as a linguistic unit is further challenged because $m m-m m m p a i a$ is not mentioned in 6 out of the 10 traditional Zone F members, namely F10, F22a, F22d. F24. F25. F33. F34. This indicates that the speakers of those languages did not originate from one proto-community. The multi-genetic character of the Zone F speech communities is mentioned by Itandala (1979.1983) and Batibo (1992b) when they discuss the origins of the current KiSukuma speakers. Nurse (1999) also doubts the membership in Zone F of F10. F23, F25, F33. F34. as reviewed in Chapter 2. Such multi-genesis as reflected by the ditferent sources of vocabulary parallels the notion of Zone F as a geographical Ahfluss/oses (iehterti, an area into which various linguistic 'rivers' emptied their vocabulary, never to come out again. It is an area where rivers flow in and the water has no outlet to tlow out because it is blocked. probably because of the safety the area offered in the past. This makes Zone F a real Ahfluss/oses (iehict calling for a proper grasp and interpretation of both its history and the phonological and lexical data yielded in this study, a theme treated in Chapter 5.

[^110]
## CHAPTER FIVE

## CONCLUSION: LANGUAGE AS A TOOL OF HISTORY

### 5.0 INTRODUCTION

This chapter closes our study by synthesizing the results of Chapter 3 and 4 in relation to the aims spelt out in Chapter 1, given the gaps identified in the literature review, Chapter 2. The reference point involves phonological and lexical innovation focusing on Bantu Spirantization (BS), seven to five vowel reduction ( $7>5$ ), Dahl's Law (DL), glottalization and voiceless nasal formation, covering the area shown in Chapter I Maps 1.2 and 1.2. Comparison to a number of eastern African languages shown in Map 1.3 was also attempted with the aim of outlining the linguistic history of SSN and Zone $F$ from the last millennium BC to the present

As Ehret ( $2000: 273$ ) cortectly observes, change of society and its culture is mirrored in the histories of words in the languages spoken by people who express the various aspects of their lives. These words and their behaviour become historical artefacts especially when they show up as reflexes in several languages, indicated by some regular sound changes. The evidence from the phonology and lexis in both SSN and Zone F suggests that they are not unified linguistic entities internally, aithough the individual languages have been adjacent for a long time. The evidence also suggests that the intermediate nodes in the Zone F hierarchy are not historically valid because the smaller units forming those higher levels are not historically supported by the phonology or vocabulary (See Figure f. I and 4.16, Chapter 4 in relation to the lexical evidence). The interpretation of the evidence to determine whether the facts
available suffice to justify such historical statements about the languages and their speakers permeates all sections. Without their proper interpretation, the graphs, statistics or patterns as representations of raw data may not be tools of history, since many factors operate in the generation of such raw data, rendering any direct interpretation of those representations difficult and misleading. Normally, there are interpretations which are not valid either linguistically or historically because the conclusions are based on the misuse. misunderstanding, or over-stretching of the limits of the data or models; or when the conciusions are based on false premises, assumptions, arguments, or mere hypotheses.

As objective events in space and time, languages reflect changes in peoples material conditions, although languages may lag behind in some respects. Such changes are discernible in sounds and words. When a speech community, its language and environment change or disappear altogether, the languages or words are left as traces of that temporary distant series of events.

In oral cultures, the only linguistic evidence of that past is obtained through the synchronic study of languages. On the one hand, if isolated evidence from the phonological, lexical or any other linguistic component is used alone, yielding some results, it does not necessarily mean that such evidence furnishes necessary and sufficient proof giving an accurate interpretation of a complete historical event which was not under our direct observation. The contribution of components such as phonology alone, may not have the same explanatory
impact as the overall effect of the language taken in its totality

### 5.1 LINGUISTIC EVIDENCE: THE RESULTS

### 5.1.1 Evidence from Phonology

### 5.1.1.1 BS and 7>5

Bamtu Spirantization is an important phonological process because it takes advantage of a particular context: superclose vowels $/ / /$ and $/ \mathbf{u} /$. There are particular, general and universal changes in languages, three metaphors used by Andersen (1988:8) BS is a particular process which has both phonetic and historical significance. Only historically related languages will have this process in Bantu, and when the process is anomalous in a specific language, then some historical explanation can be posited, either in terms of imitation or adaptation. BS could not take place independently in different languages for one reason. BS requires that features of a plosive consonant be deleted by consonantal features of a vowel, the superclose PB *i or *u In regular assimilatory processes like palatalization, front vowels generally can also spread their features to neighbouring consonants, although the results of BS and palatalization may be identical. Zoll (1995:542) differentiates between BS (which she calls 'Bantu mutation') and palatalization and the distinction highlights the uniqueness of BS as a process which could only occur in related Bantu languages. An independent occurrence would suggest that BS could be found in Indo European, Algonkian, Afro-Asiatic or indeed in ail language families of the world.

### 5.1.1.1.1 BS and 7V 5V in KISukuma2, KINyamweezi and SiSuambwa

In these three linguistic groupings, only SiSuumbwa underwent Bantu Spirantization. To strengthen this argument, in this group, only SiSuumbwa is also 5 V , like the J languages. Due to an implied lengthy contact between SiSuumbwa and KiSukuma2/KiNyamweezi speakers, facilitated by constant interaction because of geographical proximity, any traces of BS in KISukuma2 and KINyamweezi are a result of words borrowed from SiSuumbwa. This is further strengthened by the continued 7 V presence in F21 and F22, with the occurrence of words which appear to have undergone BS under the same phonetic context in SiSuumbwa, and others which did not in the same context. Such an anomalous exception to the general rule of BS within Bantu languages, and in KiSukuma2/KINyamweezi in particular, can only be explained in terms of borrowing by imitation rather than a result of an inherited process from a common parent language. Neither is it plausible to posit a process in progress or a frozen one which ceased to operate at one point in the past, implying an adaptation was in progress and then stopped. The presence of double reflexes in KISukuma2/KINyamweezi as shown in Chapter 3 can be explained quite adequately by imitation borrowing, as a process of imperfect reproduction. Since not all words in a language can be borrowed, a process like BS does not spread to all words which fulfil the conditions of the occurrence of BS, because those loan words are only imitated poorly without being adapted into the whole system of the recipient language. in SSN F21, F22 and F23. only F23 shows complete BS with 5V, except in a few borrowed words, while F21 and F22 show an anomalous pattern of BS and non-BS within the same contexts, with solid 7 V .

Thus, BS within KISukuma2, KıNyamweezi and SiSuumbwa is a good classificatory criterion which manages to isolate SiSuumbwa from KiSukuma2/KiNyamweezi as languages which have different histories.

### 5.1.1.1.2 BS and 7V 5V in Zone F

Within the wider Zone F area, full BS is found in F10 and F23 only, part of the same group of languages whose vocabulary does not fit well with the other Zone F languages. Of these, F10 and F23 have also 5 V, while F25 shows only traces of BS, with the retention of 7 V (Labroussi 1999). This is indicative of separate histories within the zone.

## 5. I. 1.2 Dahl's Law (DL)

Dahl's Law, the dissimilation of voiceless stops when two occur in consecutive syllables, is realized slightly differently in each language where it occurs. In Chapter 3, it was shown that only KISukuma (F21) and KINyamweezi in the whole of the 10 Zone F language groups had consistent and active occurrence of DL. The rest showed traces only likely to have been inherited from their proto-language or borrowed from outside. As a marked feature, DL is unlikely to be inherited from Proto Bantu by KiSukuma and KiNyamweezi, or from intermediate nodes by others, for three main reasons. Firstly, it would not be confined to eastern African languages only, showing up in Proto-Thagicu/Central Kenya (E50), ProtoChaga (Kilimanjaro)-Taita (E60/E74), Proto-J (also called Great Lakes) (DJ60, EJ10, EJ20, EJ30, EJ40), Proto-NEC (Sabaki (G40 and E71, E72, E73); Seuta (G23, G24, G31, G34), Ruvu (West and East as shown in (141) and elsewhere); Pare (G21, G22); Proto-West

Tanzania (Zone F, including F33 and F34) and Southern Tanzania Highlands (G60) (Nurse (1980, 1999). Davy and Nurse (1982), Nurse and Hinnebusch 1993). Secondly, it could not occur in $\mathrm{F} 21 / \mathrm{F} 22, \mathrm{EJ40}, \mathrm{E} 50, \mathrm{E} 60$, etc by spreading because they are not adjacent today nor, as far as we know, in the recent past. So, these languages with DL are likely to have split up from a once unitary community because of the restricted distribution of the process. Independent innovation is suspect when pockets of languages with DL in distant zones are not attested. The languages without DL were not part of that speech community. Thirdly, any highly retentive language which retains Proto-Bantu consonants very faithfully as does F24, but does not show significant traces of DL, makes DL inheritance from its immediate proto- language unlikely. If it were a feature of Proto-Bantu or any other proto-language of Zone F, it would show up with some consistency in phonologically and lexically conservative languages such as KIKIImbu (F24) and KInILaamba (F31), just as the feature would be distributed more widely and evenly within Zone F if one linguistic node joining them was responsible. Because of this anomaly, the likely possibility is inheritance by only a few languages from an intermediate node, a proto- language from which all languages with DL in eastern Africa descended, as Nurse (1999:21) observes. This intermediate node source explanation of DL is better than any other so far, because it is unlikely that an inherited feature from PB in languages like F24 or F31 can be lost without a trace, while much earlier phonological features from Proto-Bantu continue to exist. What that absence of DL in KiBende (F10), KiKirmbu (F24), IcrWu0ngu (F24), KInILaamba (F31), KiRimi (F32), KiiRangi (F33) and KeeMbuwe (F34) suggests is that some of those languages with DL
inherited it from one ancestor, while the others might have acquired the appearance through borrowing some words with DL. Since it was only imitation borrowing, few words showed up with DL. In Zone F, DL distribution is an essentially KrSukuma2 (F21/F22b) phenomenon, excluding core KINyamweezi (F22a, F22d, F22e). Due to contact, intermarriage and geographical proximity. KINyamweezi speakers might have adopted DL in some borrowed words, while in the majority of the vocabulary. DL does not operate because it was not adapted

### 5.1.1.2.1 DL in KJJukuma2, KiVyamweezi and SiSuumbwa

DL exists in SiSuumbwa only in a few words, as pointed out in Chapter 3. The most telling aspect of the process is in KINyamweezi, where DL does not show up in more than $50 \%$ of the words it is expected to occur. This DL status in SSN is recapitulated in Table 5.1

Table 5. I Percentage of DI candidate words which do NOT undergo DL (From 58 words used)

| F21a | F21b | F21c | F22b | F22a | F22d | F22e | F23a | F23b | F23c |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 | 13 | 4 | 22 | 56 | 71 | 52 | 89 | 87 | 71 |

[^111]From Table $3 . l$, it is apparent that the lower the number of exceptions, the more natural is DL in that language or dialect. The higher the number of violations leading towards a $100 \%$ rate of exceptions, the more unlikely DL is native in that language or dialect. F21 and F22b have the lowest exceptions, implying that most native words, including all loan words, undergo DL productively, whereas F22a and F22e show only half of the words with DL. Interestingly, F22d behaves as though DL is actually absent in the phonological system. because most of the words are not dissimilated. DL is unlikely to be a graded process, it is either present or absent. Anything less than fuil DL implies two things: loans of words with full DL or the resultant intermingling of speakers from different speech communities, some of whom originally spoke or had adopted a language with DL but failed to adapt DL words properly and ended up imitating incorrectly. The phonotactics in the recipient languages might not have allowed complete DL, and the speakers then passed on the 'poorly imitated' words to the next generation. Of these two explanations, loan words with DL is the most reasonable account for partial DL in KINyamweezi.

On the other hand, when a DL language like F21 has words which violate the DL principle, then, the most likely explanation is that such words are loans. With this in mind, it is only F21 and F22b which are DL, 4 dialects or languages out of 22 from the whole of Zone F. In KINyamweezi (F22a, F22d and F22e), DL is probably a result of close contact with F21, among other DL languages. This is strengthened by the SiGalagaanza case (F22d) which is currently geographically farthest from both F21 and F22b. The effect of DL fades in F22d
as the DL violations expand to $71 \%$, suggesting less borrowing from F21/F22b as the distance from the centre of DL increases

### 5.1.1.2.2 DL in Zone F

Zone F is not characterized by DL, since the dissimilation rule as a consistent process is confined to F21a, F21b, F21c and F22b only, that is, in KrSukuma2. Out of the 18 remaining dialects surveyed in the study, 12 show more than $90 \%$ exceptions to DL, while the other 6 . which are adjacent to KiSukuma2, show more than $50 \%$ exceptions. This is shown in Table 5.2.

In other words, DL is a good diagnostic tool which isolates KISukuma2 from the rest of Zone F as a historically different group. The remaining languages are not necessarily related because of that negative feature, since many languages have the same negative attribute, and they are not Zone F members.

Table 5.2 Percentage of words violaing DL in Zone F (From 58 words used)

| F21a | F21b | F21c | F22b | F22a | F22d | F22e | F23a | F23b | F23c | F10 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 13 | 13 | 4 | 22 | 56 | 52 | 71 | 89 | 87 | 71 | 100 |
|  |  |  |  |  |  |  |  |  |  |  |
| F24a | F24b | F25 | F31a | F31b | F31c | F32a | F32b | F32c | F33 | F34 |
| 91 | 98 | 100 | 100 | 100 | 100 | 98 | 100 | 98 | 98 | 95 |

In historical terms, two groups constitute Zone F: those whose ancestor had DL, and those from a proto-language without DL , suggesting strongly that Zone F is a group created by a convergency of different speech communities rather than by linguistic affiliation from common ancestry. By combining DL with BS, what is obtained is a highly fragmented KISukuma2. KINyamweezi and SiSuumbwa, a group which is traditionally assumed to be cohesive linguistically. The group is actually composed of three independent languages whose genetic closeness is highly questionable, although KISukuma2 and KINyamweezi share the absence of BS, with SiSuumbwa standing alone because of it. At Zone F level, after F10 is removed because of having complete BS, the remaining ones are not touched by cither BS or DL, making such an absence of a feature a linguistically poor unifying criterion.

## 5 1.1.3 Glottalization and Voiceless nasal formation

While glottalization is widespread in other languages, in SSN only SiSuumbwa glottalizes consistently, as shown in Table 3.36. In Zone F, KiBende (F10) and KiiRangi (F33) show consistent glottalization, while the rest show none

Another important phonological process is the presence of voiceless nasals in Zone F in a limited number of languages, namely F21 and F22b. The configuration of these nasals in the zone is further evidence for the genetic unity of KiSukuma2 (F21 + F22b), a unit which further excludes core KINyamweezi as an immediately valid sister language. Voiceless nasal formation in E71, G24, G30, G60, parts of G50 and Kisukuma2 shows a restricted process
not found in other Zone F languages, nor widely distributed in other Bantu languages, suggesting that such an areal distribution may be a sign of some genetic affiliation rather than a purely phonetic accident. It is not a productive process in KiNyamweezi or SiSuumbwa In fact, in these two, it is found only in loans or in imitations of KISukuma2. These nasals are illustrated in (188).

| abdomen, belly, stomach grasshopper | गुuumbr < N-kuumbr <br> ற̊UUmbí < N -kưmbí |
| :---: | :---: |
| thar which scoops (nom-h | juumbi < N-kuumbi <-kuumba scoop, dig' |
| kidney | magoso N -pigo |
| polygamy | malí < N-pali < PB *-padr 'polygamy' |
| apprenticeship or medical fee | meéla <-peela 'pay apprentice or medical fees' |
| rumming | meela -peela <-peela 'run' (cf meela 'chaff') |
| pig (wild) | noumbá< N -tuombá |
| ball of food | noongě < -toongě |

The common characteristics of the above words are two: first they are composed of word initial voiceless nasals which are homorganic with the initial voiceless stops of the underlying roots ${ }^{3}$ of those words, and secondly, they are unique morphophonological creations or innovations not found elsewhere in eastern African Bantu languages and possibly in the whole of Bantu in such a regular way, as a phonetically motivated, but idiosyncratic feature.

[^112]When the nasal prefix is $/ \mathrm{mu} /$ and is followed by a voiced stop in the root, then, the $/ \mathrm{u} /$ is deleted, and the $/ \mathrm{m} /$ becomes homorganic with the initial stop of the root, without forming a voiceless nasal, because there is no voiceless feature in the word, as shown in (189). This pattern is also found in KiMatengo ${ }^{4}$ and other Rufiji-Ruvuma languages (N10, P10, P20) in general

```
back y-goongo <* mu-gongo
ground (cultivated) j-gounda <*-mu-gunda
stranger, visitor, guest ŋ-geni <*mu-geni
tronk (of elephami) D-koondo < mu-koondos
```

Another important pattern connected with nasals occurs when the prefix/mu/ is followed by a semivowel or liquid sound. The $/ u^{/}$is first deleted, and the $/ \mathrm{m} /$ assimilated to the place features of the semivowel or liquid, as in (190).

| burclenload, | nigo $<$ mu-ligo < PB *mu-digo |
| :--- | :--- |
| mouth | nomo <mu-lomo < $\mathrm{PB}^{*}$ mu-domo |
| work, activity | nimo <mu-limo < $\mathrm{PB}^{*}$ mu-dimo |
| young man | flaanda <mu-yaanda |

${ }^{4}$ Joseph Mbele, p c.
${ }^{5}$ The pattern of this word violates the KISukuma2 nasalization principle, suggesting that it is a loan word because the expected form is joondo because of $/ \mathrm{k} /$. The word is also not found in Proto-Bantu, indicating that it might be a non-Bantu word, probably originating from languages like Hadza or Sandawe

### 5.1.1.4 Phonological evidence for SSN and Zone F: conclading remarks

The violation of the phonological principles of relatedness and regularity illustrated in Chapter 3 and 4 in the phonology and lexis of KiSukuma2, KiNyamweezi and SiSuumbwa (SSN) suggest that they are not closely related for the following reasons.
(1) As sister languages in such close proximity, it is genetically suspicious for them to differ in the important phonological processes of DL, BS, $7>5$, glottalization and voiceless nasal formation. This points to a significant assumption, for instance that when a language shows only some traces of $B S$, then it is not $B S$ in its strictest sense. The traces are likely to be from borrowed words from a BS language. The evidence against BS in such a language can be explained in two ways. First, the continued existence of the 7 V system weakens any claims of BS, since as Zoll (1995) notes, the close vowels triggering BS must have as their essential feature [ + syllabic, +consonsantal] in order to make Bantu Spirantization possible. Secondly, $7>5$ is not a result of BS alone since there are two sources: BS and non-BS $7>5^{\circ}$
(2) The phonological differences of KISukuma2/KINyamweczi cannot be explained only in terms of the continuum hypothesis either, since DL and voiceless nasalization divide them significantly. They are both suspicious in KINyamweezi (F22a, F22d, F22e)

[^113]By extension, if the smaller units like F21, F22 and F23 do not cohere internally, since F10 with its BS and $7>5$; F25, F33 and F34 do not fit well within the remaining Zone F languages, then what remains is also open to doubt, at least phonologically. The lexical aspect was expected to shed some more light on whether SSN and Zone F could stand as valid linguistically genetic groups. It did, but not in favour of SSN or Zone F.

### 5.1.2 Evidence from vocabulary

As shown in Chapter 4, two aspects of vocabulary were analyzed, namely, quantitative evidence using lexicostatistics and qualitative evidence by examining lexical innovations. The aim in lexicostatistics is to approximate numerically the extent of relatedness between a pair of languages or group of languages using lexical retention from a proto-language, in percentages. It is assumed that the higher the quantity is shared, the higher the level of relatedness between the languages is suggested, and vice versa. On the other hand, qualitative measures examine the type of similar lexical values or traits shared by a pair or group of languages to determine whether those traits are genetic or not. In this study lexical innovations in any one group are divided into two: unique inventions and areal innovated vocabulary as borrowing or creation (which can also be inherited in some special cases)

### 5.1.2.1 Quantitative evidence: Lexicostatistics

As a quantitative measure, lexicostatistics tells a story of relatedness, even if it is fragmented, since all second-hand stories cannot match the completeness of first hand experience before,
during or after languages split. For a fuller treatment of a larger geographical area covering more languages using lexicostatistics, see Nurse and Philippson (1980). In both Chapters 3 and 4 , it has been observed that Zone F as a linguistic entity is not supported by the phonology and vocabulary. Only smaller units form coherent patterns, corroborated by the intuitions of native speakers of those languages.

### 5.1.2.1.1KISukuma2, KINyamweezi. Sisuumbwa and Lextcostatistics

The lexicostatistical figures for this group of three languages cast doubts on SiSuumbwa's membership. For instance, whereas the shared retention rate between KiSukuma2 (F21/F22b) and core K1Nyamweezi (F22a, F22d, F22e) is 81\%, SiSuumbwa shares 71\% and $76 \%$ with them respectively, as shown in Table 5.3.

Table 5.3 KLSukuma2, KiNyamweezi. SiSuumbwa and other Zone F languages' retention rates

$$
\begin{aligned}
& \text { Bc } \\
& 52 \text { Lo } \\
& 6458 \text { Sd } \quad \mathrm{Sd}=86 \quad \mathrm{Sk}=89 \quad \mathrm{Nk}=90 \\
& 705881 \mathrm{Nz} \quad \mathrm{Nz}=84 \\
& 63567881 \mathrm{Kn} \\
& 6255767682 \mathrm{Ks} \\
& 676571766968 \text { Sy } \quad \text { Sy }=84 \\
& 56517671757467 \text { UI UI }=83 \\
& 5652797476726978 \mathrm{Ha} \\
& 585875727471687174 \mathrm{An} \\
& 57567672747269727680 \text { Rw } \\
& 5553726770676469717977 \mathrm{Mu} \\
& 565371707270616766716969 \mathrm{Mb} \\
& 51426563676454596062626164 \text { Ra } \\
& 6153656971705963646462606356 \mathrm{Wu}
\end{aligned}
$$

Abbreviations used in Table 5.3:
$\mathrm{Be}=\mathrm{KiBende} ; \mathrm{Lo}=$ KiLoongo, $\mathrm{Kn}=$ KıKımbu North; $\mathrm{Ks}=$ KIKımbu South;
$\mathrm{Ha}=$ KInIHaanzu, $\mathrm{Ah}=\mathrm{GiAhi}, \mathrm{Rw}=\mathrm{GIRwana} ; \mathrm{Mu}=\boldsymbol{\gamma}$ nyaMunyijanyi, $\mathrm{Mb}=$ KeeMbuwe;
$\mathrm{Ra}=$ KiiRangi; $\mathrm{Wu}=\mathrm{ICrWưngU} ; \mathrm{Nk}=$ GInaNtuzu + JinaKrrya
$\mathrm{Sk}=\mathrm{Nk}($ GInaNtuzu + JinaKiIya) + KımunaSukuma
$\mathrm{Sd}=\mathrm{Sk}(\mathrm{Nk}($ GInaNtuzu + JinaKirya $)+$ KımunaSukuma $)+$ KıDakama
$\mathrm{Nz}=\mathrm{KINyanyeembe}+\mathrm{KIKonoongo}+$ SiGalagaanza
Sy $=$ SiSiloombo + SiYoombe
$\mathrm{Ul}=$ KInaUshoola + KInILaamba
$\mathrm{Km}=$ KIkirmbu North + KIKirmbu South
$\mathrm{SN}=\mathrm{Sd}+\mathrm{Nz}$
$\mathrm{Ar}=$ GiAhi + GIRwana
$\mathrm{NM}=\mathrm{SN}+\mathrm{Km}$
$\mathrm{Lm}=\mathrm{Ul}+\mathrm{K} \mathrm{InIH}$ Haanzu
$\mathrm{RI}=\mathrm{Ar}+\gamma \mathrm{In}$ aaMuryipanyi
$N L=N M+L m$
$\mathrm{NR}=\mathrm{NL}+\mathrm{RI}$
This is a difference of almost $10 \%$. KiSukuma2 shares the same percentage with KeeMbuwe, although there has been no claim that KeeMbuwe forms part of the KiSukuma2 and KINyamweezi group. On the other hand, shared vocabulary with KiSukuma2 is higher in the following varicties than it is with SiSuumbwa (F23): KInIHaanzu (F31c) (79\%), KIKIImbu North (F24a) (78\%), KIKIImbu South (F24b), KInaUshoola (F31a), GIRwana (F32a) (all $76 \%$ ); GiAhi (F32b) (75\%); and YmnyaMunyinanyi (F32c) (72\%). The only figures with lower percentages are from four languages, namely, IcIWUungo and KiiRangi (both $65 \%$ ), KiBende (64\%) and KiLoongo (58\%). The use of lexicostatistics to detect the effect of contact as noted by Hinnebusch (1999:177) in 1.3.5.2.3 provides a useful explanation.

The doubts of the validity of SSN are strengthened by other reasons, among them, the naming tradition of the dialects/languages themselves in the first place, since, as words, language
names reveal the history of groups (see Chapter 2, 2.1.f.8). The use of directional names is misleading when used to suggest that any languages so named from the point of view of one language are automatically genetically related. In the KISukuma2 and KINyamweezi context, the four cardinal points of the compass refer to the following dialects/languages in the literature stikuma 'north' (F21 and F2la), dakama 'south' (F22b). preeli (F23 and/or F22d) 'west' and krya (F2Ic/F22c) 'east'. Abrahams (1967:11-2) gives an excellent summary of this naming probiem with plenty of bibliographical details which support the observations from GInaNtuzu in this study.

In GinaNtuzu, for instance, 'north' is not sukuma but shaashi. The name shacashi reters to KiShaashi (EJ44|), a language spoken north of the GinaNituzu speakers. For any groups of people living west of them, the GinaNtuzu speakers call them Banarfweeli westerners'. who include some KiSukuma, SiSuumbwa, KiLoongo and other speakers of other languages or dialects who simply happen to reside on that side, using a different language from theirs, however slightly. They only mention particular names if a group has special characteristics like the KiLoongo speakers who were famous hoe manufacturers and itinerant sellers in the past (Odner 1971). Likewise, for people living in the south, they also include speakers of any language, although they are mostly those speaking some form of KISukuma with some slight difference, because no other people using different languages lived there as their immediate neighbour.

The same insight on the misleading connotations of language names is made by Brock (1968:59-61), dealing with ifiNyiha, that common names which group a number of people often do not imply homogeneity of language and culture. The problem lies in the fact that other people who did not know those cultures well named them in the past. The ifiNyiha case is not isolated, since it is convenient and easy practice to classify and name entities by the easiest way of reference possible where no other details are available or relevant to the person giving a name

For other groups, the same naming tradition applies, indicating a non-linguistic reference. For example, in the eyes of the KISukuma speakers who live on the west, eastern speakers, BanaKrfya, include any group or language variety that is known to be different from theirs. These include JinaKIIya, GinaNtuzu and KInILaamba speakers The major problem with these dialectal names is that they are not precise linguistically nor old in usage. For example, Kasele (p.c) is quite convinced that in reality there is no such language as 'KINyamweezi' In the present day Tabora Region (See Map 1.1, Chapter 1), there are people who are known to speak specific languages or dialects rather than the abstract 'KiNyamweezi' which is a socio-political, rather than linguistic entity. These concrete dialects include KiNyanyeembe (from lgalula' in the east to Ndono in the west, as well as in the South to Ipoole, Sikoonge): KIKonoongo (from Ipoole southwards), KIYuumbu (the speakers of which moved from

[^114]Ndono and $\beta$ Osooke in present day Tabora to the south, in Mpanda, Rukwa Region, in order to avoid sleeping sickness): SiGalagaanza (of Mabama, Ndono and $\beta$ Usooke), KISaaguzi (of Kaliua), and KiStisya (west of $\beta$ usooke). KINyamweezi is essentially a political or social group identity. It is 'a language' which no one speaks. According to Kasele (p.c.), the name 'KiNyamweezi' therefore, was only a label given by the SiSuumbwa speakers to refer to their neighbours. But those SiSuumbwa speakers did not clearly know them either, and they coined the name $\beta$ aNyamweezi. 'people who come where the moon sets' or simply, 'people of the moon'. Other scholars have offered various ideas on this naming tradition. It was during the slave trade in the 1860 s where the slaves normally stayed together in their respective families or clans in the slave markets in Bagamoyo and Zanzibar before being sold to customers. The SiSuumbwa speakers could communicate well due to their better experience in long distance trade, and they were the ones asked about their neighbours.

Lexicostatistically therefore, KiSukuma2 and KINyamweezi form a possible linguistic group based on genetic heritage, whereas it is uniikely that SiSuumbwa belongs there. On the other hand, even this apparent KISukuma2 and KINyamweezi genetic affinity can be questioned, since it is based on retention only where groups like KIKırmbu share with KıSukuma2 and KINyamweezi a rate of $78 \%$, which is a difference of only $3 \%$, at the rate of $81 \%$ between KISukuma2 and KINyamweezi, as indicated in Table 5.f. This doubt is also indicated by the qualitative analysis of the vocabulary. The areal vocabulary is not shared exclusively by SSN as a single genetic group as indicated in Table 4.23 (Chapter 4) and (192).

Table 5.4. Percemages of retention rates of KDisukuma2 KINyamweez (SN) in relation to other Zone IF languages

```
Bc
52 Lo
675B SN
63 56 78 km
676574 69 Sy
56 51 74 75 67 Ul
    SN=81 Nk =90
    Sk=89
    Sd=80
Km=82 Nz=84
    Sy=84
    UI=83
565277 74 6978 Ha
585874 73 687174 Ah
575674 73 697276 80 Rw
555370 696469717977 Mu
5653 71 7161676671 6969 Mb
514264 66 545960626261 64 Ra
6153677159636464 626063 56 Wu
```

(192) Affinities in areal vocabulary for $\mathrm{F} 21 / \mathrm{F} 22 \mathrm{~b}$ and $\mathrm{F} 22 \mathrm{a} / \mathrm{F} 22 \mathrm{~d} / \mathrm{F} 22 \mathrm{e}$

| KISukuma2 (F21, with F22b) | (1)M10/M20, E50, EJ40 |
| :--- | :--- |
| KINyamweezi (F22, without F22b) | (1) M10; (2) F23a/b, F24, (3) F10, M20 |

### 5.1.2.1.2 Zone F languages and Lexicostanistics

Languages which have evolved from a common history are expected to behave in as similar a way as possible. Any slight divergence is an indication of a different path, and therefore a different history. Within Zone F, the languages tend to be conservative phonologically and to some extent, lexically, with only slight variations obtaining in each individual language (Nurse 1980:47; 1999:10). Lexically, the retention of Proto-Bantu words is relatively high. with many words appearing as they do in Proto-Bantu. With such a scenario, all Zone F languages are expected to behave that way if they indeed belong in that group.














Table 5.6. Resufts of lexicostatistical groupings in Zone F

| Guthrie's scheme |  | This study |  |
| :---: | :---: | :---: | :---: |
| Code/Group ${ }^{3}$ | Languages/Dialects | Code/Group | Languages/Dialects |
| F10 KiTongwe | F11 KiTongwe | F10 | $\mathrm{F} 10$ |
|  | F12 KiBende |  | Kibende/Kilongwe |
|  |  |  | F21a KımunaSukuma |
|  |  | F21 KıSukumaz | F21b GinaNtuzu |
| F21 KiSukuma | F21 KiSukuma |  | F21c JinaKırya [ $\mathrm{F} 22 \mathrm{C}^{9}$ ] |
|  |  |  | F22b KıDakama |
|  | F22a KıNyanyeembe | F22 KıNyamweezi | F22a KıNyanyeembe |
|  | F22d Mweri |  | F22d SiGalagaanza |
| F22 KıNyamweezi | F22c Kiya |  | F22e KıKonoongo |
|  | F22b Takama |  |  |
| F23 SiSumbwa | F23 SiSumbwa | F23 SiSuumbwa | F23a SiSiloombo |
|  |  |  | F23b SiYoombe |
|  |  | F23c KiLoongo ${ }^{\text {to }}$ (Rutara) | F23C KiLoongo |
|  |  |  | F24a KiKrimbu North |
| F24 KıKImbu | F24 Kikimbu | F24 KıKimbus | F24b Kikirmbu South |
| F25 icrßongo | F25 rcrionge | F25 rcrWoungo | F25 ICIVVuOngo |

[^115]|  |  |  | F31a Kinaushoola |
| :---: | :---: | :---: | :---: |
| F31 Kinilamba | F31 Kinilamba | F31 Kinxlamba ${ }^{\text {a }}$ | F31b KiniLaamba C |
|  |  |  | F3ic KıniHaznzu |
|  |  |  | F32a GiRwana |
| F32 KıRımi | F32 KıRtmi | F32 KıRımi | F32b GiAhi |
|  |  |  | F32c <br> yınyaMunyinanyi |
| F33 KiRangi | F33 KiRangi | F33 Kirangi | F33 KiiRangi |
| F34 KeeMbugwe | F34 KeeMbugwe | F34 KeeMbuwe | F34 Keembuwe |

The other schemes for SSN and Zone F by Bryan (1959), Doke (1961) Cole (1961), Guthrie (1959, 1967), Nurse and Philippson (1980a) and Nurse (1999) are reviewed in Chapter 2. 2.1.4 Those works were produced when gaps in knowledge in both SSN and Zone F generally were more numerous. This study therefore represents a step forward.

### 5.2 RESULTS: DIVERGENCE SINCE PB AND GROUPINGS

### 5.2.1 Areal influences

Areal vocabulary normally implies either descent from the same origins, contact and spread or borrowing from a common source at the same or different time and place. In our study, this is illustrated well by both phonology and lexis.

[^116]Areal phonological features being recycled within Bantu languages make it difficult to detect whether a word is a result of later contact or inheritance from the same proto-source. This is more so if the word is cognate and it has not undergone any significant phonological change. One such case is Dahl's Law. In Zone F, the process is clear in F21/F22b. In F22a/F22d/F22e the picture is very confusing because the majority of the words do not undergo DL A strong areal influence is suggested where intermingling, intermarriage and cross-migrations are common. The words with DL suggest borrowing through speakers from F21/F22b speech communities who intermingled with F22 speakers as adults with established speech patterns.

This also applies for BS-like features in F21, F22, F24, F25 for borrowed words. The process of BS seems partial because of the same reason of diffusion from centres of BS like F10 and F23 within Zone F, and other surrounding and outlying languages in DJ60, EJ40, E60 G30 and G60 (Hinnebusch and Nurse 1981)

While glottalization is widespread in many areas outside Zone F, within F, only F10 and F23 show consistent glottalization, whereas the widespread occurrence of PB * $\mathrm{P} \rightarrow / / /$ is a resuit of outside influence in F21, F22 and F24. Glottalization is absent in F31, F32 and F34, as illustrated in 3.1.2.1, 3.1.2.2 and 3.1.2.3. In 3.2.1.2, Table 3.25, the example refers to SSN. The mixed picture of the reflexes where PB *p is both $/ \mathrm{h} /$ and $/ \mathrm{p} /$ shows the effect of contact, borrowing and areal spread of words. In some contexts in F21 and F22 the reflexes are all
/h/, emphasizing the great impact in the past of languages like SiSuumbwa (F23). Such a mixed picture of glottalization in F21 and F22 is very similar to the partial operation of BS in these languages and Chaga noted by Hinnebusch and Nurse (1981:59, 72-73) It is a situation which can be explained in terms of heavy borrowing argued by Thomason and Kaufman (1988:53) where features are transferred from speakers of languages in contact regardless of the typological fit with the features of the borrowing language. Such borrowing results in apparent anomalies in the recipient languages' phonological or lexical structure, as demonstrated by anomalous BS and glottalization in F21 and F22, and DL in F22 from F21.

In lexis, areal influence from one source to others is exemplified by a word like -gulaati/gulaata 'he-goat', from Southern Cuhitic, as in Iraqw gurta (sg), gurtaawee (pl) (Maghway (1995): Burunge gwerati, Kw'adza gulata < Proto-Southern Cushitic *-Pogur- (Ehret 1980:293) (See (170)). While F21, [F22], F23a,b, F24, [F31] have -gulati or -gulyaati and G35 vulati on the one hand, and ([F32], F33, F34) -gulaata and Seuta-vulata. -vuata, on the other, it seems that the borrowing and adaptation process of this word depended on the particular route the word traveled, as indicated by the differences in Southern Cushitic between the singular and the plural forms, for example. When borrowing is outside Bantu, detection becomes relatively easier. For instance Nurse (1979b 350-51) posits that the Southern Cushitic speech communities were all over East Africa from Lake Victoria to the Southern Highlands, Ruvu to Central Kenya. The loans in all those areas, especially related to domestic animals attest to that. Batibo (1992b) and Ehret (1971, 1980) examine
vocabulary and its distribution in related and/or surrounding areas across time. In their surveys, lexical diffusion points to some form of contact, although the historical correlation with genetic classifications need more work and water-tight evidence of the sources and direction of borrowing.

### 5.2.2 Classification by areal vocabulary

In this study, areal vocabulary joining groups is more numerous than unique lexical creations, indicating that the central words most relevant for genetic classification are the shared unique creations as a more reliable type of innovation. Areal vocabulary points to a past connection which may not necessarily be genetic, but only be the result of contact and borrowing, either directly or through second- or third-hand sources.

One hint suggested by the areal shared vocabulary is that the languages involved were closer linguistically and geographically in the past (See Table +.23 ). This is true of the connection between Corridor languages (M10/M20), East Nyanza (EJ40) and Thagicu (E50) in relation to KISukuma2, or Corridor, SiSuumbwa (F23a/b), KIKIImbu (F24) and KiBende (F10) for KINyamweezi. On closer examination, all such areal influences are mainly contact induced due to proximity rather than being strictly genetic. The only possibility of affiliation occurs between K1Sukuma2 (F21/F22b) and Thagicu (E50) for two main reasons: presence of DL as an innovated phonological feature in both and some significant shared vocabulary KINyamweezi shows only shared vocabulary without any other phonological connection

The comparative method shows clearly the extent of divergence from PB Languages which share a common history also show the regular phonological changes uniting them, proving their close relatedness. In SSN and Zone F, the principles of relatedness and regularity are violated significantly. These principles were introduced in 1.1.3 as pillars of the comparative method. If these languages were really related, bound by their regular sound correspondences, they would not be so different in salient and diagnostic innovations like DL, BS, $7>5$, glottalization and voiceless nasal formation, in addition to having lexical stocks from different sources. Diagnostic innovations for groups and subgroups are indeed not always based on regular sound changes as Ross and Duric (1996:6-7) point out Other peculiar innovations can be examined. In our case, the dialects as low-level units of language groups and families necessitate strict application of analyses to avoid similarities due to contact and subsequent borrowing.

### 5.3 RESULTS: INDIVIDUAL LANGUAGES AND DIVERGENCE FROM AND SINCE PB

### 5.3.1 Areal influences

Although the Zone F languages are known for being phonologically and lexically conservative, processes like DL and BS have made some of them diverge from PB . affecting even the most conservative and stable languages such as F24. Another influence is witnessed in F32 with the regular change of PB *p to / $\phi /$. F24 and F31 for example have deparred very little from PB, especially phonologically Others like F21 and F22 departed a bit because of the massive interference from many contacts with different languages, both Bantu and non-

Bantu. This can also be said of F25, F33 and F34 which retain reflexes more or less close to PB. Apart from $7>5$ and other interferences from other Bantu and non-Bantu languages, F34 is not very far from PB

On the other hand, many of the divergencies in these languages can be traced more to adjacent languages than to internal innovation, especially for those languages spoken by smaller speech communities and surrounded by other, relatively bigger speech communities speaking other languages. This can be said of F10, F23, and again F34.

### 5.3.2 Classification

After minor adjustments, it is the traditional, individual groupings which are confirmed $\mathbf{F} 10$ : F21 (F21a, F21b, F21c (also labelled F22c by Guthrie), F22b); F22 (F22a, F22d, F22e), F23 (F23a, F23b) F23c, F24 (F24a, F24b), F25, F31 (F3la, F3lb, F31c), F32 (F32a, F32b, F32c), F33, F34. The divergence from PB in each individual language or language group is not significant, especially because of the generally conservative nature of the languages. This relative conservatism does not make them automatically genetically related.

### 5.4 RESULTS: CONVERGENCE AND CONTACT MODELS

While the elements of divergence in Zone F are mainly a result of contact with other languages which influence them through borrowing some items which trigger some changes. convergence in the group is even more pronounced. However, this is mainly confined to
languages such as F21, F22 and F24 in the area of vocabulary. Their individual phonologies remain distinct.

This lexical convergence can be said to have contributed to the attribution of Zone $F$ as a valid grouping, not only referentially, but also linguistically, validating the contact model by Thomason and Kaufman (1988:51), especialiy that characterized by casual contact with little bilingualism on both sides. The lexicostatistical effect of contact on retention counts as noted by Hinnebusch (1999) is also valid as an explanation here. Lexicostatistically, there is a reflection of this convergence, indicated by the family tree (figure +./), which seems to imply various epochs of separation at different levels from a common ancestor.

Closer examination reveals however that the ancestor of these languages is not immediate although there are some substantial lexical similarities between the Zone F languages as shown in the sample vocabulary in +2.2 .2 .16. The words they share, though innovations. are not unique to Zone F in the first place. The phonology supports the lack of unity of the zone by indicating that each had a different history, exemplified by F23, parts of which belong to DJ60 (F23a/F23b) and other parts to EJ10 (F23c). In addition, F22b does not belong genetically to F22. F24 does not share the same history with F31 and F32 because only one doubtful word joins them.. The histories of F10, F25, F33 and F34 are also separate. The evidence is furnished by the phonology of each language which displays either retention of the PB system, or separate innovations in terms of $\mathrm{BS}, 7>5, \mathrm{DL}$, gloualization and
voiceless nasal formation. Since the evidence from lexis and phonology does not match. phonological evidence tends to take precedence as older, and lexical similarity more recent. This analysis of non-genetic similarity is also supported by the shared innovations in lexis Apart from the individual languages known traditionally, the other traditional groupings in Zone F, SSN, F24/F31/F32,F21/F22/F24/F31/F32 are suspect, because the evidence is shaky. based predominantly on areal features.

### 5.5 LANGUAGE, ARCHAEOLOGY AND HISTORY

What do these phonological and lexical details tell us about history in the area? The following historical and archaeological works are surveyed briefly in order to compare their results with the linguistic ones. especially in relation to the methods used. The linguistic contributions were dealt with in Chapter 2, 2.1.1 a summary of which is not necessary here. But as a rule of thumb, the interpretation of objective historical events is normally determined in large measure by the methods used and type of facts available to inquirers, among other things This is due to the fact, for example, that artefacts whether material or linguistic (words) do not necessarily overlap or correlate with biological, genetic, racial, linguistic, historical. cultural, ethnic or other institutional grouping (David 1980:612, Lwanga-Lunyigo and Vansina 1988.146). In short language and culture do not always correspond. Facts and their interpretations are therefore as good as the methods employed in obtaining the data in the first place. With this in mind, our brief overview takes into account the insights of language contact and the consequent evolution of those languages (Thomason 1983, Thomason and

Kaufman 1988, Nurse 1997, Hinnebusch 1999, Mesthrie and Leap 2000). In addition, most of these works did not have Zone F or SSN as their primary focus, and hence they may address only small sections of the zone.

### 5.5.1 Soper and Golden (1969), Odner (1971)

Most of the archaeological sites Soper and Golden (1969:53) examined south of Lake Victoria did not show evidence for Early Iron Age occupation. Archaeological evidence in the area is therefore inconclusive with regard to human activity during that era because there is none. But absence of such evidence says nothing of human occupation since iron-making is a cultural innovation, not a precondition of life.

On the other hand, Soper and Golden (1969:76) contribute some understanding of KiLoongo (F23c) speakers whom they hypothesize as originating in Buha. Rwanda or Burundi because of their cultural and linguistic affinity to KiLoongo. This information was obtained from informants as oral traditions rather than a result of archaeological finds. According to the informants, the Rongo ${ }^{12}$ or Longo were smiths who were also first called Kamba, then Geji and finally Rongo (Soper and Golden, 59). Taylor (1969:144), like the rest, mentions the Rongo as a tribe distinct from the Sumbwa (F23) and Zinza (EJ23). Commenting further, he quotes a legend, saying that the Rongo occupied the forests while the Zinza lived on the

[^117]shores of Lake Victoria. Chronologically, the Rongo are said to have been the first to occupy the area. The Rongo or Longo are mentioned also in the F31 area and they predated the KInILaamba speakers. When the KinILaamba speech communities settled in the area they now occupy, the Alongo left peacefully and went to Usukuma (Odner 1971:154).

Although the picture is not clear, some affinity to DJ or J languages generally was observed earlier on, although no formal linguistic research was conducted. This study supports in part the general gist of the hypothesis of SiSuumbwa and KiLoongo belonging to $J$ languages.

### 5.5.2 Itandala $(1979,1983)$

Using oral sources gathered by the interview method and written original documents from museums and libraries, Itandala (1983:16) emphasizes the multi-clan nature of $\beta$ aSukuma, using the $\beta$ aßiinza clan history. The $\beta$ aßiinza themselves arrived between I200 AD and 1600 AD , the exact dates are unknown since various sources using genealogies differ, but falling within that range. They found other clans and Bantu speaking people in the area whose arrival is also not known, although some dates have been suggested, ranging from 500 BC to 1000 AD (Itandala 1983:33-35). These earlier inhabitants spoke proto-KISukuma (KINyamweezi) which formed a base language for incoming groups. Other immigrants such as the $\beta$ a $\beta$ iinza were absorbed and adopted proto-KISukuma(KINyamweezi) (Itandala ibid) From the examples of recent history (shortly before or after 1700 AD ) when the $\beta$ a $\beta$ iinza met the Datog, Itandala (ibid:188) mentions that later interactions between them became
more imense. This intensity of social networks was facilitated by the intermarriage of various ethnic groups interacting in the area, evidenced by the example of the Datog proper and place names still in use, especially in eastern $\beta$ oSukuma, among other remnants (Itandala 1983. 189), as mentioned in t.2./.2.16. Such an interaction of many Bantu and non-Bantu cultures suggests a complex multi-genesis of KiSukuma as a base around which substrata clustered (Itandala 1983:34).

### 5.5.3 Ehret (1994 ${ }^{13}$. 1999)

The basis of analysis in Ehret (1994 6-8) is linguistic testimony, specifically vocabulary based. The testimony also goes on to establish some groupings among which is Mashariki, comprising the languages in zones DJ, EJ, F, G, M, N, P and S located within eastern Africa, hence the name mashariki 'east'. This larger grouping is a combination and modification of both Guthrie (1967-71) and Bastin, Coupez and de Halleux (1983) who do not agree with the idea of a division of Bantu between Western and Eastern Bantu (Ehret ibid:9-11). Within Mashariki there is Kaskazi (north(ern)) from which Proto- Takama emerged Proto-Takama was the ancestor of present day F21, F22, F23, F24, F31 and F32. Excellent lexical data is provided in terms of unique innovation or loanwords. However, we do not use the vocabulary fully in our study because, first, Ehret's work covers several zones, including Zone F (Takama), and therefore only a few words are given as examples. Secondly, the basis

[^118]for obtaining both the years and linguistic affiliations and hierarchies of relationship is not explained explicitly, although it is stated clearly that Mashariki and its subdivisions are not based on genetic linguistic divisions but rather they are geographical distributions of people (Ehret ibid: 10). It is difficult to draw linguistic conclusions from a geographical distribution of languages, although some linguistic statements like those of contact and mutual borrowing can be made. Thirdly, the reliance on vocabulary to draw historical correlations is a drawback which is mentioned elsewhere. Words normally spread easily, and their significance is weakened especially when they are not unique to one group. And finally, the distribution of the vocabulary is not analyzed to see the extent of sharing between the different levels of relationship. Without such a breakdown, it is difficuit to reach conclusions of genetic affiliation, which is our main focus. For instance the following words are claimed to be Proto-Bantu by Guthrie (1967-71), although Ehret (1994) suggests that they are loans from eastern Sudanic: Proto-Lakes -tebe 'stool' from *tē.b 'to stay, dwell, sit' (cf PB *-tebe 'stool'); Kati *-kolo 'sheep' from *kol 'goat wether' (cf PB *-kodo 'sheep'). It would be more comparable with this work if it were clarified and justified why a certain choice of word origin was preferred over another. That would be possible if the exact distribution and extent of lexical spread was shown, enhancing the great potential of the work in combining history and linguistics

### 5.5.4 Other sources: etbnography, oral history and linguistic history

Apart from written linguistic, archaeological or historical sources there are other documents which are based on oral accounts recorded from the speakers of some Zone $\mathbf{F}$ languages. These explain mainly the origin of people according to collective memory. Some are confirmed by other well-known academic disciplines while others await more evidence for confirmation or refutation. Where knowledge gaps are common, it is not a good idea to privilege some sources of information by inclusion and leaving out others without rigorous academic scrutiny simply because they were not written by professional linguists. archaeologists or historians. Important insights can be gained in examining them with an open mind. However, these sources are few, as shown in 2.1.1

### 5.5.1.1 History of SiSuumbwa

According to Abrahams (1967a:25) the origin of F23 speakers is not certain, although he quotes earlier writers as saying that Usumbwa might have been controlled from Karagwe, by Tusi rulers, although he found no evidence to support that claim of imported rulers. Sutton and Roberts (1968:64) quote oral sources as saying that the history of western Tanzania communities is the history of their chiefs, and that some of the Sumbwa chiefs trace their origins in Rwanda. Who the aboriginal inhabitants were, Sutton and Roberts do not say, although the connection with Rwanda is borne out by both the phonological and lexical evidence.

Shorter (1972 xix) introduces his research findings about the Kimbu in the following way
'I have received no specific linguistic training. However, during my fieldwork in Ukimbu I was obliged to work out an orthography for the Kimbu language which I was recording. Since virtually no language recording had been done in Ukimbu before I went there, there were no existing orthographies to follow, and literate Kimbu vary considerably from each other in the way they write the sounds.'

Shorter's observation was true then, as it continues to be so even today for many of the language varieties in Tanzania. Statements and informal observations not based on research continue to be made. For instance, Shorter (1972.33) compares the opinions of various scholars who mostly relied on informants without any analysis of linguistic data as a backup mechanism, and get confused results, such as Kimbu and Bungu being almost identical, both dialects of Nyamwezi; Kimbu related to another language of Zone G. (G62), the Hehe; or Kimbu as a distinct language but closely related to Nyamwezi, which is contradictory

### 5.5.5 Conclusions from the various sources

The works on the linguistic and general history of Zone F and SSN surveyed above share one important thing: they are all hypotheses trying to account for the phenomena, using synchronic data and facts. Guthrie (1967-71) also used synchronic data to draw conclusions in relation to linguistic affiliations in Bantu languages.

The survey of the folk history of some of the Zone F languages shows that some of these folk
histories do actually have historical validity. This study shows traces of evidence to substantiate these mythologies of contact, although the constant movements suggested cannot be handled by the vocabulary since the spread of words does not imply movement of people. On the other hand, lack of evidence only means more research, possibly with a multidisciplinary approach. involving all branches of linguistics as well as evidence from other areas. This will help unearth more interconnectedness or lack thereof of the Zone F languages.

### 5.6 DIRECTIONS FOR FUTURE RESEARCH

Several improvements could make studies such as this in the future even better. These are in the areas of method, researcher attributes and source of information.
(1a) Improving method: The lists of words used were not pretested to determine if they were suitable. The problems encountered in 1.3 .4 would be reduced or eliminated if this were done. Some items were unusable because they were ambiguous, polysemous, or irrelevant because the list was not given in a trial to a preliminary small target group where the word-list would have been tested and edited to improve its quality before given to the final informants.
(Ib) In analyzing the relationship between languages, the focus should not be just on the phonology and lexicon as in the present study. Evidence of morpho-syntax (tense/aspect, noun class (nominal) and tonal systems) would go a great way to supplement lexical and phonological studies as noted by Nurse (1995:72)
(1c) A multiplicity of methods should be employed in these complex historical problems rather than sanctifying a few and ignoring the potential contributions of other approaches. This calls for changes in the training of linguists, historians, archaeologists, and others in related disciplines. This weakness has been observed when scholars adhere to various schools of thought, and they are not interested in employing the approaches of other schools by assuming that their school's approach is the best or the only one worth of attention. A similar point was raised by Nurse (1995.72) This is illustrated by archaeological approaches where German, British, American, continental Europe generally, and Russian historians and archaeologists have had their own schools of thought (Härke 1998). The rest of the scholars and researchers have followed any one of those, depending on who was influencing them at that moment. East African archaeology has been a testing ground for various approaches, although the processualist paradigm of the 1960 s and 1970 s moulded those East African archaeologists of the 1980s and 1990s (Robertshaw 1990.93) (also see 2.2). As a balance in the search for truth and facts, wherever they led the scholars, a multi-disciplinary or multiapproach focus would imply taking optional courses like historical linguistics for palaeontologists, historians; or statistics, especially probability theory for linguists for application in lexicostatistics. Many scholars assume incorrectly that scholarship is bias-free, not influenced by ideology, self-interest or the politics of the day (Bunge 1983: Harke 1998.23). It is important to recognize this fact rather than suppress it or pretend it does not exist.
(Id) Equal emphasis should be placed on the intermediate levels of reconstructed languages from which the daughter languages are postulated to have emerged Many of these levels are only hypothesized without being subjected to rigorous scrutiny. Historical linguistics is not only about reconstruction of ever distant proto(-proto-proto) systems (upstream), but also about historical trajectories (downstream).
(2) Native speakers of these languages should be encouraged even more to do research in their languages so as to inject their intuition and insights.
(3) Other sources of knowledge, especially in oral cultures should be included. For instance rituals like matambiko (ancestral offering customs) make it possible to know a people's roots by observing what artifacts are used in the tambiko (singular), eg, bamboos, canoes for $\beta \mathrm{aHa}$ which indicate how they earned their living, built their houses, etc (Chubwa 1979:8, 9). Elias Manandi Songooyi ${ }^{14}$ In turn, such sources could be compared with others describing the history of a people in oral traditions, written records, archaeology, history and linguistics.
(4) The stakeholders in the knowledge process, including researchers, funding bodies and society at large should encourage and scrutinize all alternative views, approaches and explanations of phenomena so that enquiry or funding do not prescribe and proscribe areas in which they are only interested. Such approaches of biased interest thwart genuine progress

[^119]of knowledge in a situation described by Harke (1998) in which what happens is not necessarily what is told because of interests tied in reporting history. In Bantu studies for instance, some languages have not been described because nobody is interested in funding the research there
(5) Future phases of research in Zone F should concentrate on F10, F25, F33 and F34 to clarify their histories, especially to look for more evidence for Musso's (1968) claims of the connection he makes between KiiRangi and ICrWuUnge F23 is clearer than previously known, although some more work is needed to ascertain its linguistic history even more precisely. Other languages with questionable histories can be handled in the same way to resolve any fuzzy areas

### 5.7 CONCLUSION

### 5.7.1 Answering the research questions

Four questions were posed in Chapter 1 as research questions.
(1). What are the concrete criteria for the classification of Bantu languages into zones? Do we need linguistic zones in the first place? Are they historical, areal or typological? Only unique linguistic criteria should define linguistic zones. Purely linguistic criteria do not support the idea of a Zone F they either fragment the zone and destroy it, or they are shared by other zones, making them trivial for classification.
(2). How many of the criteria mentioned in mumber (1) above should a latguage or variety possess in order to qualify for membership into a zone? If an entity is claimed to be historical, then all the defining criteria should match. Within Zone F, the languages hardly share anything. In SSN, F21, F22 and F23 are separate, unless those features: BS, 7>5, DL, glottalization and voiceless nasal formation are not significant and can be ignored. If they are ignored, which features make SSN, or even F21/F22 one entity?
(3) What rigorous features clefine Zone $F$, excluding all other zones? This study has found none, apart from vocabulary, innovations which are easily spread and shared, making Zone F only a referential one without any historical validity, except that of convergence by long contact.
4. Within Zone $F$. what features distinguish one group of languages from others in exclusion of all others, justifying the isolation of those groups? For assumed sister languages, unique innovations are the only relevant criteria for classification. The distinct status of each traditional language group is the defining character of Zone F. In combination or isolation, BS, $7>5$, DL, giottalization and voiceless nasal formation effectively fragment the zone. In addition the behaviour of PB *d in F33 and F34 isolates them from Zone F, while PB *g takes F25 away. Vocabuiary and how it is shared are also peculiar to each group

### 5.7.2 Concluding remarks

The following are general methodological and theoretical observations based on the analysis of SSN and Zone F in this study
(1) Cultural and core vocabulary reveal different things if the time of separation from a protolanguage is long. Cultural vocabulary reveals either both custom and geographical distance, or only one of them, whereas core vocabulary maintains the genetic relations even when both the cultural and geographical distances are large. For instance, KiLoongo or SiSuumbwa do not belong to F20 genetically, although they are adjacent to F20. The closeness to F20 is revealed in cultural vocabulary, which is easily acquired Similarly, genetic and cultural affiliations do not always overlap, as in the case of F23 in relation to F21/F22 and DJ60/EJ20 Cultural vocabulary explains contact, technological acquisitions and their sources, cultural influence and domination. Core vocabulary reveals genetic heritage. For instance, F23 is predominantly F20 culturally, but DJ60 genetically, as shown by the phonology and vocabulary
(2) The rates of lexical retention, high or low, are relative rather than absolute, depending on whether the word-lists used are $100,200,400$ or more. It also depends on the reference group. If one language is compared to languages with high retention rates, its individual high rates may be low with such languages, as in the case of KeeMbuwe ( $70 \%$ ) or SiSuumbwa (69\%) with NR (F21, F22, F24, F31, F32), since the retention rates there are even higher,
and a cut-off point has to be made. In some contexts, taboo words in social relations lead to vocabulary loss
(3) In adjacent languages, inter-comprehension depends largely on shared culture, facilitated only by cultural vocabulary where the rules of communication and the changes in material culture are encoded. This can be demonstrated by the Bantu languages, which belong to one family, but where speakers may not communicate if their cultures are different. When cultural distance is great because of geographical separation, communication begins to be difficult or impossible, although the core vocabulary retention rates may be high between any pair of languages. This applies in continua where distance between the furthest dialects of a language makes communication difficult. In other words, inter-comprehension between dialects tends to diminish as distance increases with a concomitant or proportional increase in cultural divergence. Both the distant and adjacent languages or dialects normally share the same core vocabulary Inter-comprehension therefore cannot be a measure or proof of genetic affiliation between speakers of two languages from the same family since genetic affiliation is a fixed fact, whereas cuitural acquisition is not ${ }^{15}$
(4) Linguistic trees (Figure +11 and Figure +16 in Chapter 4). frequency graphs and shared retention percentages are all simplifications and generalizations. They are meant to be

[^120]descriptive. Their interpretation can be historical even when the methods of deriving a certain set of conclusions are different.
(5) The oral history of iron workers in Buzinza refers to Longo as specialist ironsmiths living there and who came from different clans related to the BuKereße clans (Hartwig 1971). Buzinza is the south-western part of southern Lake Victoria. This oral version of history is corroborated by our data since linguistically, KiLoongo fits well within Rutara. both phonologically and lexically
(6) The statements made about similarities or differences about languages in the zones, especially as suggested by Guthrie (1948, 1967-71), have often been taken for granted. Only anecdotal accounts are sometimes given without any rigorous evidence to ascertain the status of entities sufficiently and necessarily. For instance, the cohesion of core Zone F (F21. F22, F24, F31, F32) or SSN (F21, F22, F23) was based on evidence which was not sufficient.
(7) It is important to recognize the advantages and limits of disciplines and their methods, as Vansina (1995b: 396) observes with regard to their theory and/or practice. For instance, in archaeology he notes the advantage of producing concrete evidence. But its limitations include the tendency to adhere to particular paradigms or to have a free range of the imagination (Vansina 1995b 396). In history, one problem in both written and oral testimonies is the privileging of some sources, especially favouring the testimony given by leaders and ignoring the versions of common people (Nurse 1979b 384). One advantage with
such testimony is the limitation on the free range of the imagination because the events are narrated by others, minimizing the subjectivity of the historian
(8) Guthrie's (1967-71) classification was mainly synchronic. It did not include the historical dimension when classifying the languages into zones, although the consonantal reconstructions and the vocabulary were historically grounded. The effect of language contact and the resuiting areal influences were not considered. The phonological and lexical analysis in this study has shown that $\operatorname{SSN}$ and Zone $\mathbf{F}$ are not valid linguistically.

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| Appendix l. Zonic f word-fist: f:3 amitlolo |  |  |
| :---: | :---: | :---: |
| No | English | Si-Súùmbwà SiSiliòómbó |
| 133 | abdomen, stomach, belly | ndà |
| 495 | abscess, boill | ihute |
| 786a | abundam/abound | kwȯókàlà |
| 786 | abundant | kwóòkȧlà |
| 571 | abuse, insult | kolùká |
| 252 | abuse, reproach | kotuká |
| 809 | accustomed (gel) | kòmànìitià |
| 274 | act (vi) | kògèmà, kößėėzyá |
| 229 | add up | kwöng ${ }^{\text {ajzzyà }}$ |
| 927 | adjacent (be); borde (vi) | kößá hiihi hifhi |
| 662 | adze, carpenter's | mbiizó |
| 254 | affair | igààmbó |
| 1002 | afraid (be) | kwȯôßảhả |
| 168 | agriculture | ilima |
| 926 | all | -oóná |
| 248 | alter, change | ku̇pilòsyà |
| 595 | animal | ndimú |
| 617 | answer a call | kûzùmyà |
| 782 | answer, reply | kojibù ? |
| 664 | ant (reddish-brown biting) | mpàzi |
| 122 | ant-hill | makenyi |
| 663 | ant (small) | màkèzi, ßusiinsi |
| 586 | anvil | ibààmízyó |


| No | English | Si-Sủưmbwả SiSilỏómbó | SiSúùmbwà SiYóómbè | Kiloongo | KiBende/KiToòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 989 | apply by stretching. spread over | kưtiindiila | kưßàambà | küßàambà | kùbáamba |
| 976 | appoint, set up | kuchààgùlà | kưchààgùla | - | kwimiká |
| 55 | arm, hand | küfókó | kùßòkó | mùkȯnȯ | kùßókó |
| 771 | armpit | kwàảhá | kwààhá | kwáăhà | ఇ̧kwàáhá |
| 203 | arrange, put in order | kupaànga | küleézyà | kùtưumbikà | kùpààngá, külyohélesyà |
| 204 | arrange, put right, repair | kúpeėzyȧ | küßeėzyả | kùkòlà | kúlyơhélésyà |
| 478 | arrive | kuhika | kühika | kühikà | küfikà |
| 665 | arrow | mwààmbi gwè bútȧ | mwààmbì | ißảnỏ | mwààmbi/myààmbi |
| 666 | arrow (head of): spear head | mutwe | mwàambi | mwàambi | mwăambi, isúmó |
| 337 | ashes | màvu | ivư/màvủ | izù/mazu | ifúûndù/màfứnđủ |
| 199 | ask for | kùsȧbà | kusȧßà | kussàßȧ | kủsèèyà |
| 89 | assemble, collect ( vt ) | kơlùndikà hàmwi | külüundikà | kùsȯozá | kúlyóhélésyà, kwisà hárriwi |
| 789 | aunt (father's sister) | séengi | seéngi | seėngi | sėengè |
| 148 | avoid, dodge | kwibáánzyá | - | kwiifuùndả | - |
| 688 | awe, fear of God | ßoóhà | kwoóßahà | - | ßoóßá |
| 667 | axe | mpàsá | mpàsá | nseénya | mpàsá |
| 364 | baboon, ape | $\eta$ kòbe | пkòße | èènkóßè | ijáándà |
| 634 | back of (at the) | nùmà | númà | nyưmà | kunyùmà |
| 297 | back | mùgȯȯngò | mugoóngó | mugoongo | múyóngó |
| 297a | backbone | igưfa lyả múgóòngò | igúfwá lyá mùgóòngơ | múgoóngo | múyòȯngó |
| 27 | bad | ibi | $i \beta i$ | -ipi | ibi |
| 37 | bad (become), rotten <br> (vi) | kuß̧olá | kưßolá | kullollà | kưßolà |
| 87 | bait | syààmbo | syàambo | wàambó/vyààmbo | fyàambó/syàambo |
| 398 | banana (plant) | ntoóke | lưtóȯkè | lügèma | ikóóndè |


| No | English | Si-Süümbwa SiSiloombo | SiSủumbwà SiYöómbè | Kiloùjgo | KiBèndè/Kitöòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 397 | banana (fruil) | itoókè | itookė | itȯȯkè, ihiisè | ikóóndé |
| 399 | banana (for cooking) | itỏakė lyé kùteékà | itơokè | htockè | - |
| 1005 | baobab | - | - | . | - |
| 1022 | bark (of tree) | iguàa | igựà | igưlà ißáảngwà | - |
| 313 | barren (of living being) | mu̇gúủmbá | múgüùmbá | mu̇güùmbà | - |
| 314 | barren (of land) | nsi yè bó | $\beta$ wȯòmé | chikámó | insij jikamile |
| 376 | base of tree-trunk | iziingà | iziingà | iziingà | isiindô |
| 650 | bask (in the sun), warm oneself | kwiikoònta | kwiikoònta | kwóotá | kùgóntélà |
| 576 | basket of open wicker-work | sikààmpu | isáànzȯ | isâanzó | m(u)sèjè |
| 577 | basket (plaited) | sikààmpú | sikảpó | chikapo | sikàpu |
| 643 | bathe | kwooga | kwoógá | kwòogá | kùnyááà |
| 498 | be fitting, behove | kưfwàay ${ }^{\text {a }}$ ? | -sogá | kùhikà | külyóóhà |
| 1 | be, become | kùbà | kùßá | kùßà | küßà |
| 955 | beach, coast, shore | mpwààni | mpwàani | mwààlò | mpwáanyi |
| 827 | bead(s) | ßüsalıú | ßusalo | bükwȧànzi | ßükàsi |
| 416 | bean, kind of bean (from Phaseolus vulgaris) | mfèèli | Øjkuùndè | lükȯoléthkoolè | mùnyȩ̂à |
| 417 | bean, small (from bean plant) | màhàlàgé | mảhàlàgè | màhàlàge | mùnyéyà |
| 844 | bean (runner) | mfèeli | mfwèèli, qkuündè mảküủkù | lưkòolè | kábálàmá |
| 1037 | bear child | kübùta | küßùtá | kùzààlà | kưfyàalà |
| 147 | beard | kàsàkù, nsaku | kàsàku | bilèzù | kàlèfùtùlètu |
| 768 | beat | kühưulà | kưhùùlà | kituélà | kühuúlà |
| 759 | beautiful | -sȯgá | -sȯgá | izimà | -sóyá, lyoòhile |


| No | English | Si-Sùùmbwà Sisitoòmbó | SiSùùmbwà SiYóombè | Killòòngo | KiBèndè/Kitoóngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 162 | bed | bùlilili, sitaándà | sitàándà | chitáándà | $\beta$ Bưilit, sitàla |
| 161 | bedstead | ßòkààngàgà | - | inchiinzi | Butilii |
| 653 | bee | nzòki | nzoki | enzóchi | nsùsi |
| 775 | beer | bùsélè | buisele | máálwà | maalwá |
| 497 | befin, suit | kübéezyà, kübėėgėzyà | kôßeela | kusèmézà | kulyȯònelà |
| 101 | below, underneath | mùunsi | hàànsi | hàànsi | hèèóó |
| 186 | bend, twist (vi) | kwiligóonda | kügòonda | kugoonda | - |
| 468 | bend (v) | kwihinà | kügòòndà | kügoòndà | - |
| 193 | bewitch | külȯgà | külȯgà | külogà | külò ${ }^{\text {aja }}$ |
| 930 | bifurcation, cross-roads | màzilà sààngwé | - | ndèkàànilo | màhààndà nsiliá |
| 222 | bile | ndưlwe | ndülwe | nđùlù | nyôòngȯ |
| 262 | bind up, splice | kưuàgùlà | kùlàgùtà | külàguilà | kühàámbà |
| 658 | bird-lime | bwilfeembo | - | wileémbwả | büliimbò |
| 811 | bird | nòni | nòni | nyônyi | inyònyi, kànyónyi |
| 46 | bith (give), to a child | küßùtá | küpûtá | kùzàálà | kufyáálà |
| 125 | bite | kultumá | kúliumá | kiutumà | kuistáá |
| 221 | bitter | -kàí, bilùlù | -kài | kusaatila | sikali |
| 223 | bladder | lùhàgó | lühàgỏ | ènsàkȯ | - |
| 482 | blind person | mưtơfù | mừơfù | münofù | múhơfù |
| 669 | blood | màgàzi | màgȧzi | $\beta$ wáámbà | màlásó |
| 496 | blow on. blow up | kưfưulà | küpùugả | kühuiuhà | kupuùsyà |
| 238 | blow bellows | kùvùguta | küvùguta | kuzưqûà | kufùkutà mufüßà |
| 463 | blow away | kùhėhá | kùhèhá | kühėhèèzà | kühèhémüsyà, kühèhémulà |
| 776 | boast, brag, praise oneself | kwiibȯná | - | kutáámbà | kwitèhá |
| 676 | boat | $\beta$ wảatò | $\beta$ wààtó | bwàảto | Bwààto |


| No | English | Si-Sùùmbwà SiSilòòmbo | SiSưùmbwa SiYoombe | KiLoòongo | KiBèndè/Kitoòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 670 | body | mubili | müpiti | múbili/mibili | sitàambō/fitàambò |
| 581 | boil up | kusisèba | küseßßa | küpilà | kưtòkòtà |
| 30 | boil (vt) | kưsèvyà | kissėvyá | küsėßyá | kutuékà |
| 433 | bone | igífuà | igưfwá | igưtwà | ifùhà/màfühà |
| 564 | bore a hole | küdülà | küduta | kufưmulà | kutußủáa |
| 1008 | born (be) | kübutwà, kùzyàalwà | küßutwà | kuzáálwà | kưfyâalwà |
| 910 | barrow | kükopà | kükópà | kutiizà | kükopá |
| 872 | bottle | nsupà | nchupa | eeenchúpa | insüpà |
| 928 | boundary | mpákà ? | Hùvüùmbà/mvüùmbá | lüvưừmba/mvíưmbà | múpákà, ipipi |
| 671 | bow, bending | kwiihiná | ßütá | búlà | kwinàmà |
| 508 | bow | bưtá | $\beta$ Butá | bưta | butá |
| 953 | bowstring | lùgė | lögė | lügòhi | kajjè kà bùta |
| 58 | brain | ßwoònko | Bwoóngo | Bwoòngo | - |
| 509 | branch | itảbàzi | itàßázi | itâßàzi | Haßi |
| 375 | bread | Øikààté | mùkảaté | mukkảtè | mukàtè ? |
| 831 | break wind* | ku̇nià müfùzi | kùnià müfuzi | künyáampà | künià ipùsi |
| 77 | break, snap | kùvùná | kùvùná | kühéendà | kufưnáyá |
| 1036 | break wind | künià mùfüzi | kùnià mùfüzi | künyáȧmpà | kunià ipùsi |
| 17 | breast (of a woman) | màbėélė | màßėélè | màßéélè, itưtü/matừtù | màbéélė |
| 489 | breath, breathing | múheèmó | müheémó. kühèerna | müheèmó | - |
| 490 | breathe, rest | kunièermà | küheèmà | küheèmükà | kưhééméta |
| 138 | bridge | idàȧazyà | idàlajà ? | Witionde | dàtajàà |
| 139 | bridge (wooden) | butâalé | - | lutionde | bulatio |
| 885 | bring, fetch | kùtèetá | kùtééla | külèeta | küléeta |
| 171 | bring to light | kütúólà hėèpė | kümàniisyà | kümànyis ${ }^{\text {aja }}$ | külààngiisyà |
| 882 | bring up (a child) | kùlèlà | kulièlà | kưlèlà | kulielà |
| 660 | brook, stream | mwiligà | ihơolá | múgèla | móóngà |
| 942 | broom | tòhyààgizyó | lühyààgito | İ̛hyáágizó | syèesó |

KiBèndè/KiToongwè
kúfümà ikobà, küfùlàlikả



|  | SiSúủmbwá SiYóónbé |
| :---: | :---: |
|  | mùfwà |
|  | mưlàmú |
|  | mùkùlò |
|  | mudügú |
|  | künôhölả |
|  | mbógó |
|  | kwobombekà |
|  | nzàgàambá |
|  | misasi miinki |
|  | múligó |
|  | kwààkà |
|  | kühyà, ku̇zigá |
|  | ku̇zyìkà |
|  | ikùùngư |
|  | - |
|  | thèendè, itakó |
|  | kùgùlà |
|  | sisààßò |
|  | múfüundò |
|  | ndàmá |
|  | külààngà |
|  | Bwààtó |
|  | ßwàato |
|  | küheeekà , kutegul |


| No | English | Si-Su̇ùmbwa SiSilóómbò |
| :---: | :---: | :---: |
| 113 | broth | múfwa |
| 381 | brother-in-law, sister-in-law | mùlȧmu |
| 341 | brother (oider) | mukulus(üy ${ }^{\text {( }}$ |
| 673 | prother, relative, fellow-tribesman | Pảdugú |
| 874 | bruise badiy, take the skin off | kwinào lưdili |
| 71 | pulfalo | mbogó |
| 807 | puild | kwoombeka |
| 674 | bul | กzàgáámbà |
| 80 | bunch (of hair) | ùmusasi |
| 890 | burden, load | muligó |
| 645 | burn ( VI \& vi) | kwààkà, kwoosyà |
| 231 | bumt (become) | kühyá |
| 179 | bury | ku̇zi̇ıà |
| 555 | bush | isala, ipoolù |
| 21 | buttermilk | mutiboto |
| 514 | buttocks | ¡hèéndè |
| 301 | buy | kügula |
| 873 | calabash | sisyàabo |
| 857 | calf of the leg | mfưữdo |
| 877 | calf | ndàmá |
| 31 | call | kùlààngá |
| 675 | canoe (dug-oul) | Pwàato |
| 602 | canoe | ßwȧato |
| 993 | carry a child on the back (in a blanket) | kciheèka |







KiBèndè/KiTò̀ngwè






| No | English | Si-Süùmbwà SiSitóòmbó | SiSủurnbwà SiYóombé | Kiloongo | KiBènde/Kitoongwe |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 52 | corpse, carcass | mútüumbáangà | mùtuumbi | mitúumbi | múlaàmbò |
| 1001 | corpse (human) | imaiti ? | mütưumbi | mutưumbi | mulààmbó |
| 383 | cough (vi) | kükỏlólà | kükòlólà | kukololià | kủkósólȧ |
| 4 | count | küpèèta | küpėètà | küpeètá | kupààndà |
| 100 | country (our) | insi yitui | ast yitus | eensi yeetu | insi |
| 14 | courtyard | lübúugà | sißáànzá | lüßugȧ | ibảảnjá, sibáanjả |
| 852 | cover (up) | ku̇fündikila | kùfüundikila | kưfưundikilà | kufiimbila |
| 285 | cow | ךóómbè | nóombe | èente | inórmbé |
| 1003 | coward | mwȯòßá | mwȯòßá | mutioi | mwoóbá |
| 335 | crab | - | - | - | - |
| 520 | crawl, creep | kwàảvủulà | kwààvu̇ula | kwázzừla | kusyèelèká |
| 612 | cricket | sifưulà/bisituaula | nàanzėlèlé | nyèenze | nyeénsé |
| 153 | cripple | mülèmà | múlèmá | mưlèmà | mislèmá |
| 803 | crocodile | máamba ? | nsăambi | ènsaàmpi | ngwèènà |
| 319 | cross (a river) | kưtààmbòkà | kutààmbukà | kutáámbùkà | kưyàmbùkà mwóóngá |
| 846 | crow ( n ) | mbàgá | ßảagà | Baágà//àagà | - |
| 308 | crown of the head | lùtóótò | ßwȯotoótó | Iwȯdtoto | lutoóósi |
| 79 | crumple | Kuhnináátrinà | - | - | kubbulunggányà |
| 370 | crush by pounding, pulverize | kusèkülà | - | kusiginà | kutwa |
| 393 | crust | Øjkòkotwwá | nkókótwà | eenjkógòtó | - |
| 160 | cry, wail | külilà | külila | kulilà | kullità |
| 966 | cucumber, small | mààlimbe | màhiti | maliimbè, ßơliimbè | mutànả |
| 736 | cudgel | $\beta$ ühili | ßühili | @ühili | i¢óóngo |
| 165 | cultivate | külimá | kùlimả | külimả | kưtimà |
| 950 | cure, cool, heal | kusiinsyà | kùnozyá | kuhoza | kusisyá <ku̇sitá |
| 355 | cut | kùkàtá ? | kutèmá | kunógólà, kítémà | küpùtá, kủpútùlá |
| 98 | cut, lop | kupùùngúsyà | - | kưtưutuùlà | kuputưlà |


Kiloóngò


| No | English | Si-Sủúmbwa Sisinóómbó | SiSúùmbwa siYóòmbe |
| :---: | :---: | :---: | :---: |
| 117 | cul to shape, sharpen $k$ | kubèènyà k | kưsòòngỏlà |
|  | to a point | kwigààmbà |  |
| 365 | dance (of men, to show courage) | kwigàmba | kütúuma nquomà |
| 53 | dance | kwis yinià ๆquma | \|yéépi |
| 622 | dark, black | - | giuti |
| 481 | darkness | 12 | kȯsyá |
| 824 | dawn (vi) | kusya | ikeessi |
| 359 | dawn, daybreak | kusya | màzướli |
| 744 | day after tomorrow |  | lósikú |
| 130 | day |  | mwizyóǫßá |
| 682 | day-time | mwizyouba | izyóößá dwi |
| 869 | day (all) | mázùòli | mazetuli |
| 751 | day before yesterday | mazoou | mutwile |
| 423 | dead person |  | lòtư |
| 424 | dealn | 10 |  |
| 931 | decorate | kupaamba | kùnià |
| 446a | defecate |  | mukèmó |
| 631 | denial | kukema | ku̇kémà |
| 821 | deny |  | kusiisà, küplitya |
| 648 | destroy, spoil | kusnisa | lùme |
| 437 | dew | lume | kwiltả |
| 219 | die (cause to); put to death* | kwita |  |
| 1027 | 7 die ${ }^{\text {- }}$ | kùfwá |  |
| 425 | die | kùfwa | kuzyôtà |
| 504 | dig up, dig out | kusimbouta, kutukdor | kusiumba |
| 503 | dig | kissimpa |  |


| No | English | Si-Suiumbwà SiSilóómbó | SiSưunbwà SiYóòmbé | KiLooóggó | KiBèndè/KiTóórgwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 466 | diminish, grow less | kwoòndà | kúpủùngúlà | kùkėhà | kùpúüngúkà |
| 635 | dip | kusoofya | kusooornvyà | kùkózà | kutwéésyà |
| 49 | dirt | matàkalà, bùcháfù ? | matakàlà, ßücháfù ? | ükó/màkò, bitảkala | buıcháafù? |
| 680 | district, province, country | nsí (yítü) | nsi | èènsi | sihủjó |
| 245 | divide | kugabaanula | kugàßà | kügaßa | kưjaßaánya |
| 512 | divorce | kubiingá, tallákà ? | kußiingȧ | kủlèkáànả | külèkànà |
| 367 | do, complete, finish | kumàlà | kùmálà | ku̇màlà | kủhwá |
| 366 | do | kugemà | kugèmà | kùzilà | kwiilà |
| 60 | dog | mbwá | mbwá | éémbwà | iimbwá |
| 292a | donkey | ndògòbė | nzòße, mpúúndà | eendogóßè | - |
| 685 | door | muzigó | muzigó | mùlyààngó | Iwiißi, múlyàȧ̇gó |
| 415 | dove (red-eyed) | 7küundya | 7kuundya | enküundyà | ๆkuúnda |
| 188 | doze | kưgònà | kùgỏnà, kủtiindilà | ku̇tiindilà | küsiònsilà |
| 529 | draw water (from well) | kưtàhà (miinzi) | kùtàhá (miinzi) | kùtáhá miinzi | kutàhá máànsí |
| 215 | dream (vt, vi) | kủloottela | kưloòtėlà | külóota | kuılóota |
| 328 | dream ( n ) | kùlósta, mulosotélȯ | múlóotélo | chilooto | - |
| 448 | drink | kùnwa | kùnwa | kủnywà | künywà |
| 196 | drizzle | tònảảnảgálà | mànàànàgálà | lunnyàànyàgàlà | ku̇nyáyàlà |
| 780 | drop, throw down | kơgwlisyà | kuhàangùùla | kütaßßülà, kunaangưừa, kwáánả | kügwilsya |
| 284 | drum | 7gómà | 7gòmà | èèngòmȧ | iingòmà |
| 598 | dry (vi), set out to dry | kwȧanikilà | kwàanikilà | kwáánikila | kujañika |
| 346 | dry | noommú | Iyôomú | bwôome | -gúmilė <kùgùmá |
| 954 | dry up, ebb | kwȯoma | kwȯòmà | - | kùhwá |
| 345 | dry up, become dry | kwóòmà | kwóómà | kwóormà | kühwá |


| No | English | Si-Sùúmbwà SiSilòòmbó | SiSùủmbwả SiYóombè | KiLodongó | KiBèndè/KiYóȯngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 289 | duck | mbàatà | mbảata | émbààtà | ißảàtà/måßààtà |
| 243 | dust, cloud of dust | Iubuubu | lußßủuß | lüßüßu | lưfüundü/mafüundù |
| 628 | dwell | kwilikàlà | kwiikàlà | kwiikàlisà | kwilikàlà |
| 492 | eagerness, zeal | bwààngủbwà àngủ | $\beta$ wààngu̇ßwảàngủ | mėelù, kühúlügủtà | bwààngùbwáángủ |
| 491 | eagle, bird of prey | mbeesi | mbeeesi | Tkóonà | ipuingoú, lisáànsá |
| 563 | ear | kùtwi | kùtwi | kutwi | itwi |
| 70 | earth, land | nsi | nsi | ensi | bùlóñgó |
| 44 | earthenware vessel for serving up food | tulààngảhé | - | chisėmè/visémè, ènyüùngú | silitilo |
| 156 | eat | kulya | külyà | külyà | kulyà |
| 900 | effort, exertion | ngùzu̇ | ๆ̧uzù | kủhátiká | kúkảlàȧmbảnả |
| 273 | egg | igi/màgi | igi/màgi | iyȧáyi/màyááyi | iji/màjf |
| 443 | eight | munààné | münáanè | munáanè | munàané |
| 705a | elbow | ikoókólà | lưkỏỏkỏola | lùkỏkoòlà | kàsu̇kúúmpà ? |
| 329 | elephant | nzòvú | nzovù | ènzȯzù | insófù |
| 336 | embers | ikalà lyè múlilò | ikàlà lyé múlito | ikàlà lyȯ múlilo | ikàlá lyá múliliò |
| 842 | embrace | kübuùmbililà | kübưùmbililà | kübúmbilà | kukúkútilà |
| 384 | end (come to an). cease | kuthika mwiisyó | Kümàa, kütèka | kuliekeià | kühwà |
| 952 | escape, recover | kusità | kủsila | küchila, küpülủgùka | kusita |
| 899 | examine, measure, test | kúpiòmà | kügėma, küpiimà | kúpiima | kuplima ? |
| 45 | excrement, dung | mààmvi | mảàmvi | màzi | ifi/màfi |
| 958 | exorcise, drive out a devil | kukuùnguúlà | kùß̧ingấ, kukuùngủưlà | kukuúngưula | kupuùngà |
| 784 | explain | kwilyeléézyà ? | kútėembúusyȧ | küteembuutucha | küảàngisya, kulaansyà |
| 620 | eye | liinsó/máasyó | lìnsó/miinsó | liinsò/mèėnsó | liinso/méensó |
| 828 | eyebrow | nkôhé | - | màsigà | - |


| No | English | Si-Sủủmbwá SiSilómbò | SiSúủnbwà SiYóómbè | KiLȯóngỏ | KiBèndè/Kitoóngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 838 | eyelash | nkohe | \#kohe | ènkóhė | ךkóhé |
| 587 | face downwards | kàvùmà | làambalatà | küßuundaàlà | kuláala |
| 686 | face | $\beta$ usyõ | $\beta$ üsyó | $\beta$ úso | busyú |
| 940 | fade, disappear | kwèèlơkílwà | . | kühwééėlà | - |
| 891 | taint, lose consciousness | kuthotu | - | - | - |
| 298 | fall | kūgwà | ku̇gwà | küwa | küwa |
| 549 | fall short | kủpúóngùlà | kùlêßà | külèßá | kupóóngúká |
| 462 | fan, wave | küpėpéelà | kủpèpèela | kühúùhila | kühéhémúlà |
| 764 | far | hàlè | nảlè | nale | kulè |
| 921 | fat (be) (of animals) | kủginà | küginà, kùnòlà | kunula | kutiamà, kunòna |
| 922 | fat (of animals) | inòné | -nòté | -ànuzzilé | inónilé, -hàmú |
| 531a | father | Bāaßa | Bäáßa, dàáda | táàtà | tààtà, tààtà bűsyà, tảảta |
| 382 | father-in-law, mother-in-law | bàà-/màá bùkwè | tàatà-/màả ßòkwè | sinyizàlà, máhȧzàlà | tảatá/màamà búkwè |
| 531 | father (my) | ßảáßà | ßàáßà, dàảdà | táătà | tàatà, lààtà |
| 687 | fear | kwoóbảhà, ßoóßá | Booßa | $\beta$ utini | bóoba |
| 652 | feathers, fur | mȧzòzà | màzoózà | §wooya |  |
| 848 | fence, enclosure | lugoó | lùgó | lùúßà | tưûßà |
| 858 | ferment, turn sour | kùgàasa | ku̇gảàsà | kugàgà | kusasà |
| 762 | few (a), not much | tùdó | ndó | bichè, bikè | -sé |
| 757 | fierce, sharp | mullààmbė | $\beta$ ßusooòngòké | $\beta$ wȯȯgi | -kali |
| 421 | fig-tree | - | - | - | - |
| 422 | fig-mulberry tree | mủkúyú | - | mukuiyu | - |
| 216 | fight | kussoola, kwiihúúlà | kủsoóla | külwànnà | kusoolà |
| 804 | fill | kükàzyá | kwȯȯkȧzyȧ | kwizuza | kübúưmbà |
| 176 | fill a hole, stop up | kuzißila | küzißilà | kuzißilà | kwiiyàlà |
| 583 | filter, strain | kuswiizà | kuswiiza | kuswiizà | kusuusà |


| No | English | Sì-Sừmbwà Sisilóombò | SiSúùmbwà SiYóómbè | KiLoòngò | Kibèndè/Kitóngwe |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | filth | màtàkàlà | màtàkàlà | bitàkàlà | bùchááfù ? |
| 516 | final, decisive | kulaàmúla | - | - | -à ha mwilsyó? |
| 760 | fine, excellent | -sȯgá | -sògá | kủzimà | sỏyá |
| 447 | finger | mùnwè | mùnwè | lükúmu̇ | kàkúmó/lừkúmó |
| 323 | fingernail | lyàalà | Iyáala | lyààlà/mààlà | lüsàlà/nsålà |
| 474 | fire | múlilo | mùlilo | múfilo | mùlilo/milito |
| 280 | fiseplace, hearth, kitchen | izilkó |  | inigà | iliyamadiya |
| 970a | firewood (coilect, cut) (vt) | kúsėèna | kuseènả | küsèenyà | kütèmá $\ddagger$ kwi |
| 413 | firewood | 7kwi | ךkwi | eenjkwi | Økwi |
| 191 | fish up, pull out | kúlößóólà | kwiihủtà | ku̇zòmóòlà | kưsààßưlà |
| 126 | fish (old Swahili nswi) | mfwi. nsàmaaki ? | mfwi | eemfwi | iséembé/màseeembé |
| 190 | fish (vt), trap fish | kutega | kutegà mfwi | küḑ̧ȧ, Kutega | kutópa |
| 400 | fist | ๆgu̇umi | 7gưumi | eèngưủmi | ךgúmi ? |
| 525 | five | itaánó | itảánó | itaàno | Itàánȯ |
| 493 | flap wings wildly, flutter | kúpèpèélà | küpàpȧmíla | kūpāpámilà | kủpủpùmúkà |
| 832 | flatulence | kùvimbéélwa | kuvimbèélwả | kùziimbeèlwà, kùhihà | kùfiimbiilwà |
| 384 | flavoured (be properly) | kùkwàatá | kùkỏlėélà | kühikà | kủjóyá |
| 907 | flower | ทủà? | luà? | iláßo/malápo | iùà/maủa ? |
| 278 | fly (house) | nsààzi | nsààzi | ènschèlả | lussaasi/nsàasi |
| 1028 | fly (vi) | kùgùlùkà | kùgùlùkà | kùgùlủkȧ | kủyülükà |
| 1032 | foam * | ifulō | ifülo | ifulo | ifưlò/màfülò |
| 502 | foam | ifúló | ¡fütó | ifùlo | ifùlófmảfüló |
| 143 | follow (in order) | kwiloòndėzyà | kùloóndà | kùkúiàatitila | kủlóóndèlà, kühėlékèlà, kühétékésyá |

 mpàámbà
isàlà kủlaß̉itilà ihàándà
iinè kàsaßa iyáßo/mayápo kùkàlààngà
kùkiulả kübưumbiká bùsitááni?
kusèsá?
kwīsá hámwi
mbảßàà ? kasyá likéjè, lifùùngò kùpata isyüùkà, mùsyuuuká ntwiliyà
 $\stackrel{5}{3}$

| SiSuúmbwà SiYóombè | Kiloóngó |
| :---: | :---: |
| kulòóndezya | kưkülảàtità |
| mpààmbà | èmpààmbà |
| iku̇ùngú | intingu |
| ku̇vůguta | kühéésà |
| kưlàßílà | kwėèßwà |
| nsagà ipààndá | ensaga |
| inè | ine |
| lyȯȯlà | ikelye |
| - | isumó, Büsumó |
| kükalảátgà | kưkálàangà |
| kühyà, kùkòmèelá | kùkóméèlà |
| kwoòkáta | kviinzulà |
| - | Büsitaáni? |
| küyàhà | kwàahà |
| - | kükȯßèlà |
| nsyà | èėnsà |
| mpàlàhálà | èmpalàhala |
| ntüùngó | ètừùngó |
| küpààndikà | kupàảndikȧ, kupionà |
| mủsáàmbwà? mủzưưkả ? | - |
| ntwiigá | entwiiga |
| kühà | kúsȧàmbà |
| kưhá, kùfùmyà | kưhà |


kàsyà
mu̇kósè
ntüüngò
kúpáándikà
isáambwà
ntwigà童

| $\quad$ English |
| :--- |
| follow |
| food supply for a |
| journey |
| forest |
| forge |
| forget |
| fork, bifurcation |
| four |
| frog |
| fruit |
| fry |
| fully developed, be |
| full (become) |
| garden |
| gather (flowers, fruit) |
| gathered (be), |
| assembled |
| gazelle (Grant's) |
| gazelle, small |
| (impala) |
| genet (kind of |
| speckled civet cat) |
| get, obtain |
| ghost, sudden |
| apparition |
| giraffe |
| give away (present) |
| give |

2


| No | English | Si-Süümbwà SiShoómbò | SiSùùmbwà SiYóórnié | KiLoò̀jgò | KiBèndè/KiTơongwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 916 | give light to | ku̇mwȯȯlèkà | kúmólèkà | kủmòlèkà | kümùnikà |
| 815 | glide, trickle | kùsėlèmà | . | kùgèlà | ku̇sȯóßà |
| 269 | go | ku̇zyâ | kuzyà | kügèendà | kujuà |
| 639 | go in, come in, enter | kwiingifà | kwiingílá | kwiingilà | kwiingilà |
| 63 | goat | mbuzi | mbùzi | embúzi | mbúsi, imbúsí |
| 694 | goat, (he-) | ngùlààti | П̧ưlàati | entùlàgè |  |
| 695 | god | misảàmbwà | misảambwa, münģa | nyamùhàangà, muúngù | tißwèteelo |
| 758 | good | mfülà | nsògá | màzimá | nsógà |
| 388 | goshawk (East African) (Astur tachiro) | sùngusėélyà | màlè̀lé | inààndà | lisâánsà |
| 68 | grain (of cereal) | kàzümo | nzüma, lùzuıma | lüzùmá | sisáká, mbutó |
| 696 | grandfather | goúkù | guıúku | gùúkù | kúúkủ, sò/tààtȧku̇fú |
| 697 | grandmother | mảama | màámà | kàakà | küủkù, nyȯkȯkúlư |
| 432 | grasp, nold in arm | kùkwatitua | kukwathila | kupuumbila | kưfưumbata |
| 698 | grass, reeds | mànàánsi | mànàánsi | mȧnyȧȧnsi | máßánȯ, bwààsí |
| 406 | grate | kòkwàatólà | kùkwààlùla | kùkwáálùlà | - |
| 409 | great, powerful, big | mùkülu | ๆkưừ | ihãàgoò | -külủ |
| 164 | grief, sorrow | - | - | kùhóloblòka | ฤkúümbú, nyúúmbú |
| 371 | grind (grain with a millstone) | kùsyà | ku̇syà | kùsyà | ku̇syà |
| 372 | grind coarsely | kùsiginà | kủhàlàlà | kühàlàgà | künalàlà |
| 212 | groove, furrow | ihisyó | $\eta$ kólóómbilwà | - | - |
| 801 | ground, cultivated | mủgúundá | mugùundà, ilaàlé | ensáambó | iBàlà |
| 405 | grow up, get large, become great | kùkùlá | kükùlȧ | kùkúlà | kükùtà |
| 913 | grow (of plants) | kúmėlà | kumèlà | kùmela | kủmèlà |
| 461 | grown (be fully) | kùkómèèlà | kúkòmèéla | kùkòmèèlá | kükülà |


| No | English | Si-Sủümbwa SiSilóòmbó | SiSùùmbwà SiYöómbè | Kiloòngo | KiBèndè/KiTooòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 373 | aruel, light porridae | nkoómbá | nkaómbà | ènkóómba | mpàná |
| 358 | grunt, grumble | kògưùnà | kùküünȧ | kükùumà | kükiimà |
| 205 | guide aright | külàảnzyà | - | kühánà | kúlòmbòla |
| 351 | guinea-fowl | 7kàànga | Økaànga | ènkáànga | ikäȧngȧ |
| 701 | gun | 7góohó | ngóóhó | engoóhò | mùndúúsi |
| 702 | hair | mủsàsi | músàsi | isokè | nyèlé |
| 977 | hair (long straight- of animals and Europeans) | mu̇sàsì m(i))lèèlé | mu̇sàsi m(i))léélé | èmbüusi | ßujáámbá, nyèlé, ßooosá, ßúsiingá |
| 75 | hair (white, grey) | mvi | mvi | èènzwi | $\eta k$ òtė |
| 703 | hand (flat of) | ikoofi | ikoofi | ikoófi | küßókó |
| 157 | hand, right | kùlyó | kúlyò | külyó | kweènė |
| 439 | hand (left) | kùmȧsó | kùmàảnso | kùmàsô | 10 Onsó |
| 476 | handle, haft | mühini | mühini | mühini | múhini |
| 779 | hang in mid-air | kwillingà | küsùngèena | kulieléemba | kừèia |
| 655 | hard | qgùmé | igùmé | kügưmà | ikàkȧ |
| 377 | hardship, distress | màkỏyé | màkòyé | èqkưutè | - |
| 294 | nare | nảkȧmi | nakàmi | nyàkámi | súngúlà ? |
| 781 | haste | bwààngưbwààngú | ßwàànguipwàảngú | $\beta$ wààngơ | $\beta$ wàángư |
| 795 | nate, detest | kügàya | kügaya | kügaya | küaja |
| 700 | hay | mảnȧȧnsì mòùmú | mảnàảnsi móomú | ßùnyàasi | - |
| 678 | head, chief person | mùkùlós | mùkùlú | mukùlus | mükùtư |
| 356 | head | mùtwé | mútwé | mútwè | múlwè/mitwe |
| 352 | head-pad | 7katá | Økatà | èngatá | $\dagger \mathrm{Tk}$ àtả |
| 561 | heap | küli indikà (v) | itưumbi, ilưundô | iluündo | mu̇siinkú, isyàalà |
| 391 | heap up, ready/set on fire | kühéèmbà múliló | kúhèèmbá múlió kwàasyá | küheémbà | küüündikà |
| 623 | hear | kwiimvá | kwȯòmuwá | kühưlita | kúhùlika |


| No | English | Si-Suùmbwà SiSiloómbó | SiSúùmbwà SiYóȯmbé | KiLóȯngó | KiBèndè/KiTȯòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 543 | heart | mwilizò | mwiizȯ | mu̇gzányà | mwėȩ̀ólmyėèyó |
| 944 | hearthstone for putting pots on | ihigà/màhiga | inigà/mànigá | ihiga/màiga | ifiyà/mafiya |
| 893 | heavy, serious, dull | itiimbé | itiimbė | -limbá, itiimbé | inywalamu |
| 705 | heel (of foot) | nsiinsiilò | sisiinzilò, lùgèlé | chisiinsilò | kásiinsilàtusionsila |
| 681 | heifer | ndógóòsyà | - | ndògỏȯsà | - |
| 418 | hem, make a border | kủhina | kuhina | kùgóonda | kủlààndà |
| 690 | hen, fowl, chicken | 7kȯkó | 门kòkó | ènkòkó | inkookó/ךkókó |
| 766 | here | àhànó, èyóno | áhó, èyó | àhà, uku | àảhà, úkơ |
| 863 | hiccup | kủsėefúúlwà | kusilitüulwà | ènsikinyà | 0kwiigkwi |
| 800 | hide (vt) | kübisá | küßisá | kùsèlèka | küfisá |
| 38 | high, be (of meat) | küvüunda | kuvùùndà | kùzu̇undà | kùfưundà |
| 326 | highway | nzilá | ibàlảbálà ? | ikweesi, ikuulwà | nsila |
| 309 | hill | luggùù | luggàus | kảßàang ${ }^{\text {à }}$ | mu̇sȯsi/misosi |
| 925 | hip | múkiṫŋgitili | - | - | - |
| 317 | hippopotamus | ךgügüma | ๆgügủmà | èngủgu̇mà | ntòmóómbó |
| 396 | hit with a hammer | kùkómààngilà | ku̇kȯmȧangilà | kùtèèà | kùsùtà |
| 706 | hoe | mfùká | mfùká, igèembè | èmfükà | mfüká |
| 990 | hold, arrest | kükwààtà | kùkwààtȧ | ku̇kwáảtà | kủni̧à |
| 575 | hole, nest | idúlólò | idùlúlú | chàali | siisà/fisà |
| 836 | hollow out | ku̇kòómbȧ | kùtèèzà ? | kùkȯgòtà | kùsàßà |
| 816 | home | kảayá | kảàyá, wititủ | wèètu, múkà | külüyó, ku mwèetus |
| 654 | honey | bwôosi | [iwoosi | [jwoochi | buüsi |
| 150 | honour | kúhiisimà? | - | kùkuzà | kùkóonka |
| 797 | hook (for pulling down branches in plucking fruit) | inànüuzilo | inȧnủuzilò | ndóßàno ? | - |
| 189 | hook (fish) | ndóbảno | ndòßáno | ndókàno | nđỏß̧ßáánò ? |


| No | English | Si－Süumbwà SiSilóombó | SiSưủnbwà SiYóómbè | KiLloòngò | KiBèndè／KiToòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 707 | horn，ivory，tusk | iheèmbė | ihèèmbé | iheémbé | ¡héèmbé lyá nsootù |
| 288 | horse＊ | mtalaási ？ | － | － |  |
| 708 | house | núưmbà | nủumbà | êenzù | Inyuùmbá |
| 263 | how many？ | nì ziingà | ziingà | ziíngá | fiingáá |
| 572 | hump（of hunchback） | － | － | lutưurnbi | － |
| 573 | nump（of cow） | ibààngo | ißaàango | ißaààngó |  |
| 756 | nundred | igànà | igànà | igãnả | imyà ？ |
| 320 | hunger | nzàlà bùtȧmò | nzàlà，ßütàmó | ènzàlà | nsâla |
| 33 | hunt | kühiigá | kühigà | kühiigà | kùhiiyà |
| 34 | hunter（professional） | mühiizi | müthizi | múhrigi | mùhiiyi，fưundi hà nyàmà |
| 35 | hunting | bühiizi | kưhiigà，mùhiigoo | ßühigigi | kùhiiyà |
| 227 | nusband | muluame | mulume | ß⿰亻⿱亠凶口 | ibá，ibàne，ißaló |
| 808 | nut | núúmbà | sißaándà | kàßảảnzà | nyưu̇mbà，mu̇yààndá |
| 709 | hyena | mfisi | mfisi | èmpisi | Itàná |
| 1016 | ， | one | one | inye | ùune |
| 1013 | idleness，sloth | bủzobé | ßüzoße | $\beta$ ßugósè | búfilà |
| 901 | ill（be）；groan | kòlwàálà | kưlwàà | külwááà | kùlwáálà |
| 902 | illness，（crippling） | builveèlè | Bülwèelè | Piowéelè | Pülweélé |
| 275 | imitate | kwilbilà | kwiigèméékèzyá | kưtóolèlà | kujijiingányà |
| 16 | in front of | bưtơonzi | küßȯtoónzi | $\beta$ Butoongi | kưumbèlè |
| 353 | in the middle of | hakati | hàkati | hàgati | hàkati |
| 118 | incite | kugàngúósya | kusàmilifizizyà | kusàmilizà | küsȯonsyà |
| 206 | increase，make greater | küku̇zyá | kwóóngézyà | kwóóngėzà | kügùngilisya |
| 155 | increase | kùkilà | kükilà | küchilàãnà | kükuúmbikà，kükùlà |
| 426 | inheritance | isaâló | － | － | kuhyâanà，visaànso |
| 542 | inside，in | mükàti，múnưu̇mbi | múkatf | mưgàti，müùnzủ | múkàti |
| 353a | inside，middle | mükati | hàkảtí | hàgáti | hàkàti |

KiBèndè/KiTóòngwè
malà
kủkòlwà
ijètàimàjela jèlàmajela
mãandà (Kifipa)
kubăbá kưhàgàmá ibupa ibupa
Wèendo/nyeèndo küjáàngúlả kùgùfükà mfigó?皆




 $\frac{6}{6}$

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\begin{aligned}
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& \frac{0}{E} \\
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\end{aligned}
$$

| No | English | SìSủumbwà SiSilóómbó | SiSùumbwà SiYóòmbé | KiLȯóngò | KiBèndè/KiTòòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 761 | large, great, big * | †kòlò | ukù̀u̇ | ¡hààngò | ikùló |
| 94 | laugh | kusèkȧ | kusékà | kuseekà | kusèkà |
| 792 | lay over on one side | kwàãikila | kusèendàmikả | kühéngeka | kwiinàmisyà |
| 1000 | lazy | muzobé | muzóbé | mu̇gósè | mfilà |
| 699 | leat, blade of grass | màtivitu | ituotu |  | lyáanyi/máányi |
| 1025 | leaf (tree) | màtuutus | itūutu | ißàßi/màßàßi | lyáanyi/mȧányi |
| 911 | leak, ooze out | kuvwa | kủvwa | kùwà | kusobofa |
| 96 | lean, bend down, slope | kwiinámȧ | kwînȧmà | kưgỏorngòmàla | kwiinàmà |
| 536 | lean on, rely on | kwiizigizyà | kwiizigizyà | - | - |
| 796 | lean, become; grow thin | kwòòndà | kwơȯndá | kwȧȧnukà | kựóóndá |
| 535 | leaning (be) | kweegamilà | kusèendàmà | kusėéndàma | - |
| 613 | leam | kwiliáánzyȧ | kwillàánzyà | kuėgèsà | kwiifüúndiisyà |
| 546 | leave, permission | fühusà? | - | külàgà | lûhúsà |
| 1011 | leave over | kusảázyà | kusàázyȧ | ku̇sáagyà | kùlèkètà |
| 547 | leave, go away | ku̇zyà | küzyà, küßuúkà | kügėèndà | ku̇búúkà |
| 544 | leave (off) | külèkà | killékà | kúlekà | külekà |
| 975 | left over, (be): remain over | kwiikàla, kùsiigálà | kusiigala | kusààgyà | kusiißà |
| 310 | leg. foot | kugulù/màgúlù | kügulù/màgùlù | kugulu/màgùtù | küyulù/mả yùlù |
| 774 | lend, borrow | kukỏpà | kùtiizyà | kưtiizà | kutiilà |
| 107 | leopard | ngwe | ngwe | ènzùmúlà | iingwe |
| 878 | lick (vt) | kulàamba | kulaàmba | külaambà | kưláámba |
| 134 | he down | kugònà kulàalà | kügònà | kulyáàmà | kuláálà |
| 250 | lie on one's back | kusáàngàlàlà | kusàgàlálà | kugàlàmà | küláálá kànságà |
| 791 | lift up, pick up | kubuutisyà | kußßuúsyà, kwiinulà | kwiimùchà | kubuusyà |
| 467 | light in weight | mpuupe | ipuope | -puüpè | ilèlè |



| Kiloóngó |
| :---: |
| igưlù |
| eènkußa |
| chook ${ }^{\text {áa }}$ ? |
| musitảali |
| mühúzo/mihu̇zó |
| ėėngàànzà |
| mùnwâ |
| kunulikizà |
| killemburukà |
| itimà |
| kituciungà |
| - |
| èenzigè |
| kưlèeha |
| Heele |
| kùlééßả |
| küliisa, kudiemá |
| kultèeßá |
| kưlèeßà |
| ku̇lyàámililả |
| kùlėmbǜkà |
| kübulà |
| cendà |



| No | English | Si-Sủủmbwà Sisílóómbỏ |
| :---: | :---: | :---: |
| 304 | light, sky | itưundé |
| 805 | lightning | bùmémè ? |
| 65 ? | lime, whitewash chat | chòkà ? |
| 213 | line, row | músitaáll ? |
| 659 | line, fishing mind | msuipi ? |
| 103 | lion | ntaale |
| 198 | Iip | mulomo |
| 956 | listen | kưwobkilizy |
| 972 | listless (be) | butote |
| 1024 | liver | itimá |
| 429 | livestock (keep) | kutüunga |
| 819 | lobster | - |
| 794 | locust | nzigè |
| 1553 | long (become) | kúbuleéte |
| 144 | long | bulieèlé |
| 131 | look after, care for | kulèla |
| 871 | look after grazing catle, help a sick man on the road | kudioma |
| 354 | look at, examine | külinga |
| 354a | look around | kùlingá |
| 200 | look for, hang around (to get sometbing), pursue | d kuseeßjeela |
| 973 | loose (be); faint, weak | kudeda |
| 181 | lost, get | kupula |
| 1023 | louse | nda |


| No | English | Si-Süumbwa SiSilöombo |
| :---: | :---: | :---: |
| 769 | love, want | küsimà |
| 934 | lung | mảhảȧhȧ |
| 713 | magic * | bülòzi |
| 714 | maize | múhiindi |
| 521 | make offerings to the dead | külàßlùùlůlà |
| 226 | male | igóosyà |
| 10 | mamba, green (kind of poisonous snake) | nyalatuutitu |
| 793 | many | -iinki |
| 1019 | many * | -iinki |
| 897 | marriage | ku̇sweélà, kütóólà |
| 895 | marry (of man) | küswèéla |
| 896 | marry (give in marriage-of parents, priests) | kusweézyả |
| 814 | master | mwàȧmi ? |
| 888 | match, harmonise (vi) | kwiigànìlà |
| 935 | mature | kùkȯméélà |
| 596 | meat | nàmà |
| 259 | medicine, remedy | bùgảangà |
| 260 | medicine (art of medicine man) | butumù, kulàgula |
| 261 | medicine-man | müfùmú, mùlágùzi |
| 90 | meet | kủsảànià |
| 861 | mell | kùyéyúna? |
| 845 | midwife | - |
| 859 | migrate, move away | kúfülu̇ùkà |


| SiSùùmbwà SiYoombé | Kiloòngo | KiBèndè/Kitoòngwè |
| :---: | :---: | :---: |
| kussiimá | kusilimả | kunyómwa |
| iháhȧ/mảhảhá | iháhà/màháhả | ípóómbȯ/mápóómbȯ |
| bùlòzi | Bùlỏgi | ßulósi |
| mùhiindi | ipo | sisàka/fisàka |
| kùtààmbika | kutàambiika | kupeéla |
| igơósyá, múgoósyá | iseèzà/máséezà | ๆgòosi |
| - | eenkóßókó | Пkóßógó |
| -iinki | nyïingi | -iingi |
| -iinki | nyíngi | -iingi |
| ßùswèėzi | Bweènga | bútoosi |
| kusweéla | kuswéélà | ku̇tóóla |
| kủswéézyà | kusiigà ? | kütỏósyà |
| - | - | mu̇jáango |
| kwiingànà, kwiingànilà | kwiingànà | kùliìjgàná |
| ikóméèlė | -kòmeèzile | nkùlủ, inyhe |
| nȧmá | eènyámȧ | inyàmá |
| Bưgààngả | müßazi | büyààngà |
| Bưfumu | ßülảgủzi | $\beta$ Butumù |
| mủfümú | mưfúmú | múfùmú/bàfùmú |
| kủsààngà | kùsàảngà, küßúgànà | kusȧảngà |
| - | kuhwèeèlèlà | - |
| - | múfúmú | - |
| kùfúlúka | küfülükà | kùtóúlókà |


| No | English | Sì-Sùùmbwà SiSilòómbó | SiSu̇úmbwà SiYỏómbé | Kilióóngó | KiBèndè/Kitòòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1030 | milk (n) | mabeélè | maßeelè | àmatè | maßeélė |
| 20 | milk (curdled), curds | múlibôto, mülimbȯòtó | - | mbóßȯto | - |
| 19 | milk, (fresh) ( n ) | màbèélè, masùkà | mảsüúngà | àmáte | maliéėle |
| 903 | millet (bulirush) | busigá | ßüsigá? | luß̧ere | nsảka/màsákà |
| 290 | millipede | igóơngoólwa | igȯóngólwà | igòlóngólyỏ | - |
| 73 | mix (ingredients, 'season food') | kütüngá | kúlưòngá | kutúlàảnizà | kusàànsyá |
| 72 | mix, put together | ku̇sàànzya | - | kưtütáanizà | kusảảnsikảnya, kùsàànsyả |
| 363 | monkey (small lightish-coloured) | ŋjkẻéndé | ŋjkėéndé | èènkèendè | liáảndà/màjaàndà |
| 362 | monkey (colobus(with long black silk hair, white on shoulders) | Øjeèndé | - | - | - |
| 361 | monkey (small, dark-coloured) | ๆkėéndé | Øjėéndé | ėènkėèndè | - |
| 716 | moon | kweẻzi | kwèézi | kweezi | mweensi |
| 609 | moonlight | kwėėzi | kwèèzi | kwèèzi | kurnweènsi |
| 59 | mosquito | múßü/mißu | múßú/mißú | múpu/mißù | kàlààmbà/tưlààmbà |
| 436 | mother | yàáyú/màáyù | yààyù/màáyù | mááhà | máajó/bàmáajo máámà |
| 65 | mould (pottery) | kübưưmbá | ku̇vùúmbá | kü̧úmbà | kưbúúmbá milooondè |
| 717 | mountain | mùgàlà | mu̇gàlà, lùgủlù | ißààngà | mussosi/misȯsi |
| 163 | mourning | nảku | nàkú | lifus | sibitolftilo |
| 1026 | mouth | mülómó | múlómo | munwa | múlomo/milomo |
| 272 | movement | kàziilô | tưgéendo | lùgèendó | kàjlilo |
| 979 | mud, mire | màlòlò | mảloblo | èntómè | ntòpèmảtópe |
| 642 | mushroom | Bwóoßà | ßwóß ${ }_{\text {coi }}$ | Bwoóßa | bóbà |
| 152 | mutilated (be) | kúlèmààlà | külèmaálà | kulèmaàla | külemálá |
| 281 | name | iziiná | iziiná | Iziina | isiina |


| No | English | Si-Sùùmbwà SiSilòòmbò | SiSủùmbwà SiYòòmbè | Kilȯòjgò | KiBèndè/KiTóongwe |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 539 | namely | òti | óti | - 3 ífmwà | ókúlééndà |
| 403 | nape (of neck) | Bukkosi | - | eéŋkomó | ikósi/màkósi |
| 256 | navel | ikoondo | 7,küủnwi | mủküundi | műnyónyóminyorlyó |
| 765 | near | hiihi | hiihi | hiíhi | hèehi |
| 379 | neck | Økiïทgó | 7kiing ${ }^{\text {¢ }}$ | bichà | ikȯsi//màkȯsi |
| 843 | need, request | shiida ? | - | Bweenzi | - |
| 962 | new | nyhàanya | nyhyadaya, ihyaáhyà | enymyàmyá | nynyá |
| 718 | night | bwiile | willė | chitò | büfúku |
| 755 | nine | syeenda | syeendà | mwèenda | kėendà |
| 484 | nose | niindó | niindó | ènyiindò | inyiindó |
| 211 | number | mùlòongò | - | - | - |
| 237 | oar | - | - | èèngàhi | Økàhi |
| 939 | obstruct | ku̇kèmá | kùkèmá | - | küpiingá, küplingámá |
| 48 | offspring | mwàana/bàanà | mwàànà/ßàanà | lüzȧàlô | büfyảési, mwààná |
| 66 | oil (from plants) | mȧsảnả | - | màzútà | bùto, mafûtá |
| 435 | oil | mảfütá | màfütá | màzútà | màfùtá |
| 818 | old times, the past | nà kâtè | kalle | hàlè | kâtè |
| 411 | old person | múnàmpala, múkeèkülu̇ | mùnȧampalȧ, mùkiikülù | mu̇nyààmpàlà. mükẻèkủtù | mùkèèkúlùlbàkėèkúlư |
| 410 | old | ndảàtà | ilàalá | -áá kàlè | lyà kàlè |
| 214 | one-eyed (being) | nsóóngó | nsoóngó | ènsóójgò | chóóngȯ |
| 440 | one | imwi | imwi | imwe, kàmwé | imwi |
| 590 | open mouth wide | kwààsámà | kwàasȧmà | kwȧsȧmȧ | kủgảsâmá |
| 984 | open | kwiigùlà | kwiigülà | küchiinguulà | kwiiyülȧ |
| 829 | open (set ajar) a door k | kwìgùlà | - kis | kúchiingưlà, kùhègà | kwii̧ưlà, lyàangò ßwiyưlè |
| 876 | order, direct | ku̇tùmá | kűtümả | kưtümà, külagiila | kúlagisyà |
| 961 | ostrich | mbưùni, binyónyi byáá hèèlà | nóòmvwi | enyóónzó | - |


| SiSủumbwá SiYóombė | KiLȯóngò | KiBèndè/Kitoòngwè |
| :---: | :---: | :---: |
| yitiú | yéétu | fyéétú |
| kưfùmá, kùpưuná | külugato | kuja, ku̇fùmá, kùbúúkà |
| hėelú | héelu | küunsė |
| kưkiindá | kusiingà | kùyola |
| kưtòlolgwà, küdàaiwa ? | $\cdot$ | kùbá nė dééni |
| -- | $\cdot$ | - |
| küvigà hamwi | kùhiingikà | kảbáámbá |
| kusindilila | kusiindagila | kưtutiká |
| idàalé | bitùutá, idàalé, bilùundò | mùleya |
| müligó | - | mu̇tưưmba |
| - | eengáhi | $\eta^{\text {kähí }}$ |
| - | - | mülȯmò múkàti, hėègutù |
| - | - | mưtèendè ? |
| - | - | màalwà |
| sigàanzà | chigàànzà | küßòkó |
| - | - | - |
| - | mùhàmà/mihàmà | mùhàmà/mihamà |
| - | - | màßẻsè |
| küzu̇gúmà | kùzügúma | mwégó kùpàlàlà |
| müßùsi/ßàßüsi | mủzeèle | müfyási |
| kàsúúkù | - | - |
| kùnitá | kühingùla | kühità |
| nzilà | mùhảándà | nsila |
| külihà | külitica | kùlihà |

Si-Sưumbwa
SiSilóombo



küdaàiwà?ku̇vilingà nánwi
kübilíngà
idàáé

múligó, kàamúligo| English |
| :--- |
| our(s) pl. 1st person) |
| out (go), go away |
| outside |
| overcome; win, |
| vanquish |
| owed by, be |
| oyster |
| pack (luggage) |
| pack, press together |
| pack, flock, group |
| pack, bale, bundie |
| (n) |
| paddie (n). |
| palate |
| palm (date) |
| paim-wine |
| paim (of hand) |
| paim (raphia) |
| paim (borassus) |
| paim (oil) |
| palpitate, flutter, |
| femble |
| parent. s/he who |
| begets |
| parrot |
| pass, surpass |
| path |
| pay |



| No | English | Si-Siumbwà SiSilóombó | SiSùùmbwà SiYóómbè | KiLoòngò | KiBèndè/KiTodngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 600 | pay attention, take care | kwàmvülikizyà | külèlà, kùtùùngá | kwiitoòndà | kùyàngálilà |
| 820 | peel, shell | kúpàlȧ, kusỏondóólà | kusėėnà, kủsỏóndoólà | kùtỏóndòlà | kùkỏongà |
| 12 | peg | lümàȧmbó/mààmbó | - | èembàgó | - |
| 11 | pegs (tent) | tumaámbó/màambo | Sumaùmboimámbo | limáambó | imáambö/máàmbó |
| 494 | penetrate | kühitilizyà | kwiòngíla | kusyėepá | kwing ilat, kưtúßúnkanyȧ |
| 721 | penis | mbòló | lóßòló/mbóló | mbỏtò | ißỏoó/mảßótó |
| 884 | penknife, lancet | kaküumbi | mwààmbi | kasyo, kahyò | kaambi/twàambi |
| 558 | person | mừntú | múu̇ntù | mùuntü | mùuntù |
| 638 | pestle | mwiisi | mwirsi | mwiinsi | mủùnsi/miinsi |
| 312 | pig | Пgülùßė | mpúnù | eempunu | $7 \mathrm{gưtüßè}$ |
| 414 | pigeon, kind of | ๆkuı̉undyà | - |  | $\eta$ ku̇ùndà |
| 579 | pile up, pile loads on head | kutwiika, kütikà | kwiitwika | kühiongikà | kutwiika |
| 479 | pinch, make narrow | kusinà | kusina | küsünả | küsina |
| 357 | pipe (tobacco) | kànüúngú | - | isékė | ikủùnkà/mikuửjkà, mútèèmbà |
| 552 | pit, hole | liinà | liinà | liinà | liiná/mèèná |
| 974 | place, put (vt) | kủtüúla | ku̇túúlà | kủ tăho | kubiikà |
| 722 | place ( n ) | hààntù | hảantù | hàảntủ | hààntü |
| 892 | place of the dead | kuzimu | - | kuzimu ? | kusimu |
| 225 | plait | kusukà | küsu̇kà | kusùkȧ | kusủkà |
| 932 | plant, sow | kühààmbà | kùhààmbà | kuhààmbà | kubyáálà mbưtó |
| 510 | platform | Ioteèßeezyo | lwàànzá | lußßalázà | hèègưlui |
| 834 | please, satisly (Vt) | kütȯosya | kütóosyà | kuhichà | külyóohya |
| 93 | pleased (be) | kusiimà | küsiima | kunulililwà | kunyòmwá |
| 13 | plot of ground | lu̇ßóúgá | lujprigá | lùßúgà, lüßaánzȧ | - |
| 647 | plunder (a town) | kübàdà? | - | - | kutèkả ? |


| No | English | Si-Súùmbwà SiSilòòmbó | SiSúùmbwả SiYòómbè | Kilooongó | KiBėndè/KiTȯȯngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1014 | plunge into, cause to sink | kưduùmbùkizyà | küduùmbủkizyà | kútoplèlà | - |
| 114 | poke | kukuüngàania | küküüngaania | kweendègèzà | kusóorjkà |
| 737 | pole, thin | ißázi/màßȧzi | ißàzi/máßàzi | lußßázi | - |
| 111 | polish, clean by rubbing | kusiigà | kusiigà | kùhàlàgùtà | - |
| 177 | pool, pond | ilààmbó | Ulaámbó | ilaàmbó | kasißà |
| 923 | porcupine | lifógóté | inógotè | ènyógoté | nu̇ùggúli |
| 374 | porridge (stiff) | Bugàli | Bùgàli | ¢ß̧úlò | Büyàli |
| 42 | pot (metal) | ikopó | ikopó | ikopó | ifülila/máfùlila ? |
| 41 | pot, vessel | sisèmè/visèmè | sisèmè/visėme | chisėmè/viseme | Øjoònó |
| 39 | pot, mug | mukebè | mukèbe | mukebe | - |
| 40 | pot, cooking (earthen) | nưủggù | nùungu | ènyüüngù | Пkònó |
| 749 | patato (sweet) | maziizi | izizizimázizi | encismbis, lunsumbui | sinuombu |
| 646 | potter's kiln | - | -- | - | - |
| 369 | pound (grain in a mortar to get off the husks) | kuseèkúla | kükủuzư̇ùlà | kusėkùlà | kutwá |
| 441 | pour away | kusèèsa | kusèesa | kúsėèsa | kùyónà |
| 641 | pour | kúfùkả | kukènénà | kủlòòngèlà | küyónà ßu̇sėèßuısé |
| 748 | pregnancy | ndà | ndà | èendà | indà/ndà |
| 636 | pregnant, be | kutwààlá noda | kutưungà ndà | küpà nèènđa, kùtéelwá èèndà | küpà nè nđà, kunywaảmà |
| 599 | prepare | kutȧyààlisyȧ ? | - | kúlìngànizá | kulyơohèlessya |
| 553 | press out (oil seed. sugar cane) | - | kuthàmúúlà | kukȧánzà | kukàmá |
| 986 | produce, put forth. display | kupüùnià | kufümyȧ | kwihaho | kufümyá |


| No | English | Si-Sùumbwà SiSilòòmbo | SiSùumbwà SiYȯómbé | KiLȯòngó | KiBèndè/KiTȯòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 909 | prominent (be): put out | kùpúunà | - | kütùlùkà | kümanyikà |
| 518 | pronounce | kùtètà | kütèta, kùyoómbà | - | kütèendȧ |
| 340 | protect by charm (medicine) | kủgùừqưừlà | kủkàgá | kúkàga | küliisiimpả, kùsiimpà |
| 947 | protect by charms (target) | ku̇gu̇ùngúưlà | kùkàgá | kükágà | küliisiimpà, kủsilmpà |
| 475 | puff-adder | kipfil | ißàambahili | ¡ȧàmbahili | impili/mpili |
| 244 | pull | kủkweẻsa | kùkweèsà | kükwèèsa | kùbwità |
| 173 | pull up, come to a halt | kwil̀milila | kwilimilila | kwèémètėlà | kwìmilità |
| 172 | pull up, root up | kusiimbuùla | küdübülà, kùsiimbừlà ? | kùnyùkúlà | kümoólà |
| 833 | pull, drag | kübwėègà | kúkwèesà | kükwèesa | kübwiltà |
| 57 | pump | ibóómbà | ißóómbà | ifoómbà | - |
| 548 | push | kusukumà ? | kusiindikả ? | kusiindikà | kutèenkà |
| 992 | put, place, set | kütùúlà | kùtùulà, kùßưka | ku̇ßioká | küblika |
| 887 | put together for comparison | kúliingànisyà | küliingànisyà | kwïngànisà | kúliingàànyà |
| 969 | put a pot on the fire | kwàalikilà | kütèlèkà | kùtèlèkà | kütèlėká $\ddagger$ kȯnỏ |
| 981 | put together, compose | küliingá | - | küliingà | kütùủngá |
| 862 | python | nsàto | nsato | eénsatoò | nsató |
| 656 | quarrel (vi) | kusoota | kusoólà | kwiizùmàgúlà | kussóótà |
| 180 | quench, extinguish | küzimá | ku̇zimya | kuzimyà | kúsipya, kuhwâ |
| 485 | quiet (be) | kưlèèmbéèlȧ | külėèmbėėlà | kutėkàảna | kùhúúmbúlà |
| 76 | rain | mvülà | mvúla | eènzulà | (i)mfütȧ |
| 917 | rain (vi) | kutùlà (mvůlà) | kügwà (mvülà) | kugwa nzula | kugw' emfulá, kituóonyà |
| 1006 | rains, the lesser | kàswȧàlȧzì | - | - | mútusyó ? |
| 197 | rainy season | syàandà | itủumbà | itúủmbà | kusòyó |


| No | English | Si-Sùùmbwà SiSilóómbó | SiSủùmbwà SiYòómbè | Kilȯòngò | KiBèndè/KiTòòngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 580 | rumble | ku̇tùtùmà | kwàànà, kühììndà | kuzziimbà | küjòßöòlà |
| 26 | rat, kind of | $\eta \mathrm{k}$ esi | ๆkeżi | eènkėzi | nsėensi |
| 488 | rat (field) | ŋkososo múdolo | - | eembépa | ikosō/màkoso |
| 24 | rat | ŋkȯsó | \#kossó | mudolo | ikosơ/màkosoo |
| 25 | sat- \{very large, long-tailed) | nkesi | - | muadolio | tùunkȯ |
| 883 | razor | lügèèmbé | lügeèmbè | wèèmbė | kàyèembé |
| 949 | read | kùsóma | küspoma | küsoma | kusoma ? |
| 1007 | reap, harvest | kwwimbùlà, kúsôlà | kwilimbùlà, ku̇kėsà | kúsưưndüla, kügèsa, kútônà | kúsüùyừà |
| 523 | receive | küpôkėèlà | kwàảnùkütà | kwàànủkưlả | küpókeèlá |
| 537 | reed | lübìngóbiingó | itèté/mảtèté | idètè/màdètè | itėte/màtėte, iswé |
| 632 | refuse, say no | kükèmá | kükèmà | kwàngà | kütüná |
| 633 | reject, refuse, dislike | ku̇kèmà, ku̇kàànà | kùkèmá | kwàànga | kùtùná |
| 545 | remain, stay behind * | kwiikàlà nùmà | kwilikàtà | kwiikàlà | kusiißa |
| 1035 | remain. stay | kùsàagà | küsiigálà | kwilikàlà | kusiißà |
| 840 | remember | kwiizükilă | kwiißùkila | kwipüukila | kwisukilà |
| 499 | resemble * | kwwikotả | kwilikotá | küstuxsànà | kưüingáàná |
| 879 | resemble (very closeiy) | kwiikỏ̇lá | kwilikòlá | kùsùsà | kưliingàànả |
| 1031 | resemble * | kwiikora | kwilkolá | küsusa | küliingàànả |
| 149 | rest heavily on, be burdensome | kùßùná | küleméèla | kutiombilwa | küßäàndà, kùßäandikiisyà |
| 964 | rest the cheek on the hand (in brooding mood) | kwlikwaátà kàtàmà | kükwaâta itama | kühololokelwa | kuniyiga itàmà [kùnyig etama) |
| 957 | rest, take a holiday | kwiifưữà | kwiifúúlà | kühúmủlà | kútàmùkà |
| 249 | return, go back | kủsuıpá | kùsüpá | kuisifß | küheltélà |
| 1004 | return | kủsüßá | küsùßá | kusufia | kühètélela |

KiBèndè/KiToöngwè




$$
\begin{aligned}
& \text { Sì-Sùùmbwà } \\
& \text { SiSilòombo }
\end{aligned}
$$

| kuzoookola |
| :---: |
| mpèlá |
| lùßàvù |
| yà ßưhyé |
| kúhyà |
| kùhyá |
| mweingà |
| kühùurnà |
| kùkàànzyȧ |

mwâàmbá gwi ßảảlè
 пkiuingülüme
muzi mbilingè kùpilimá




| No | English | Si-Süúmbwà SiSilóȯmbó | SiSùùnbwà SiYòómbẻ | Kiloongó | KiBèndè/KiToòjgwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 788 | satisfy | kütỏosyà | kütỏosyà | kühichà | kwuliku̇syá ? |
| 251 | say to, tell to | kübwiilà | küwîla | kügaàmbila | kưbalilà |
| 783 | scorpion | ๆgè | kâmiina | kàmìnà | kàaminà/tưumina |
| 453 | scrape | kưkwààlùlà | kùpàlá | kupalȧ | - |
| 855 | scrape, grate | kiskwàtula | kükwâalưtá | kukwàaluta | hupala |
| 856 | scratch, grate * | kwiliyààgúlà | kúsinààgùtà | kưkwảalùlà | kupàlà |
| 668 | scythe, sickle | lwiihyò | mùhȯòlȯ | mùhòló | mpüpó <kùpủpá |
| 84 | search for | kükóßß | kükoòßȧ | kúloónda | küheénsá |
| 85 | search diligently | kükulà | kükulà | kükủla | küheénsá |
| 738 | seat, stool, chair | itèßé | itèßé | itêpe | sitèßé/fiteß |
| 770 | see | küpòná | küßòná | kúlèéßà | ku̇lola |
| 67 | seed | mbưto, mbègù | mbutó, $\beta$ ơtưungá | mbîßo | mbútó |
| 404 | seize | kükwȧátà | kùkwàátà | kükwààtà | ku̇nyiyà |
| 611 | self | -ènèkili | -enikili | yơónyènè | mwèèné (-èèné) |
| 302 | sell | kuguzyà | kuguzyà | kuguza | kủyưlà, kủgu̇syà |
| 570 | send | kutùmá | kùtùmá | kutürnà, külàgizà | kưtùmá |
| 451 | separate, sel apart | kulèkàànià | kulè̀kàànisyȧ | külèkảànisà | kùbliká hàajéháajjé |
| 450 | separate, leave each other | kutàangána, külèkảana | kutàagànà, kullekaànà, kwiliéka | kulekānà | kulekkanà |
| 534 | set a trap | kưtègá | kütègá | kutégà | kutèyá |
| 868 | set (of the sun) | külòká | külòkà | kulookà | kúsyáȧmà |
| 971 | settied (be): be in good order | kuleembeèla | kulteembeeta | kusémèlà | külyóóhȧ |
| 754 | seven | musȧàmvü | musàarmvù | musȧanzù | mpu̇u̇ngati, ndvi |
| 1033 | sew* | kusóna | küsùmá | kusona, kusumá | kullànda |
| 589 | sew | kusona | ku̇sủmá | kusònà, kusủmá | kulààndà |
| 135 | sexual intercourse with (have) | kùswíkà | kügèmà | küchùgànà | kùtoómbà, kuswàảnà |


| No | English | Si-Sủủmbwà SiSilòòmbó | SiSưùmbwà SiYoómbė | KiLoòjgò | KiBèndè/KiTòòngwe |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 691 | shadow, shade | mùtâkà | mutâkà | mwiinziizi, müßėhò | bülèlo, siinsimwi |
| 867 | shame, disgrace | nsooni | nsȯni | eensoni | nsonyi |
| 116 | shame | nsooni | nsòní | èensóni | nsonyi |
| 724 | shame, modesty | nsóni | nsooni | èensóni | nsonyi |
| 386 | sharp (be) | kưuginà | kuùgina | kùkàlà | kùkảlinà |
| 920 | sharpen | kùnóȯlá | ku̇nȯȯlá | kùhyootar | kütyàsyà |
| 915 | shave | kussùnzuoúla | kussumzưulà, kùmóoggà | kùsȯsôla | kübépá |
| 603 | she, he | àwene | awe | wenyené | üpo. yoyoli |
| 287 | sheep | ntààmà | ntâàmà | èntààmà | 刀kȯndótó? |
| 1009 | shell, cowrie | nsiimbi | nòòngà | ènsimbi | mpási, mààmbà |
| 822 | shell | - | nóorgá | enssingo | Пkombetélée |
| 725 | shield | п¢äßó? | - | - | - |
| 712 | shin (bone) | mütüundf | mülüundì | mütündi | mülündi |
| 968 | shiver, shudder* | kùzưgùmà | kùzùgùmà | kùzùgùmà | kùtėtermà |
| 528 | shiver | küzùgùmà | küzu̇gùmà | ku̇zu̇gúmà | kütètèmà |
| 434 | short | niiht | niihf | -gùfu | ntotu |
| 430 | shoulder, tip of | ißegaà | - | - | - |
| 588 | shoulder | ißėgả | ißėgá | ißėgà/máßèga | ibéyà/mabeyà |
| 839 | shout | küyơgá | küyơgá | kưtélà yòombȯ | kưtàángiilià, kwiilá bülààngà |
| 946 | shrivelled (be); wrinkled | - | - | kwriisùna | - |
| 763 | sick | kưlwààả | ilweere | ßưlweètè | Iweèté |
| 870 | sift | küycùùnga | kȯyoùùgaa | küyüùngà | kùsảàgùlà |
| 615 | sing | kwiimbá | kwis̀mbá | kùzinà | kwiimbà |
| 3 | singe | kübàbuilà | küßảbula | kwoocheela | kübábưlà, kugosyà |
| 980 | sink, be drowned | kùnùbisà | kưtüßilà | kütơtà | kùsyààmà, kùnyàànyà |
| 170 | sink | kùnwibilà | kừưßilà | kütùßilà | ku̇syààmả |

KiBèndè/KiTóóngwè
kưhúừ é kơofi (kưhưưià) kùpupá kúsiinsá
m(u)sya
m(u) syà
m(u)sya
küyơnà, külaála tülo
\%
bulilili, hà kúlààlà
kùtè̀èsyà ?
-nsé, -sé
ndüßi ?
kùnyünkililà
kùnyuüñkà
kủnyúúņkà
lyóónsi

| KiLoongo |
| :---: |
| munyâan ya |
| kwilikalisà |
| múkáágà |
| twiamó, chéemó |
| ikoßà |
| isúswà/màsůswa |
| igừù |
| kúßééhèlà |
| kútėelá ikoòfi |
| kütémá |
| kùßȧàgá |
| mủzáànà |
| múzàànả |
| múzàànà |
| külyàmà |
| tulo |
| ßừààló |
| ku̇tè̀èlà |
| iké |
| - |
| kümóta, kurnootéèlà |
| künùinjkả |
| kùnùùnkè |
| múhilinkà |



| No | English | Si-Súùmbwà SiSiloòmbó |
| :---: | :---: | :---: |
| 726 | sister (his)/ (hen) brother | kâlưưmbúa |
| 627 | sit | kwilkalisya |
| 753 | six | mu̇kààgá |
| 785 | size, measure | ßừừtư, ßưdàázi |
| 123 | skin (of person) | ndili |
| 124 | skin/rind (of fruit) | igưuà |
| 303 | sky | ilüùndè |
| 865 | slander, accuse faisely, often secretly | küchỏòngètelà |
| 470 | slap | kühúưlà ikoófi |
| 970 | slash | kưtèma |
| 220 | slaughter | kúsiká |
| 727 | slave, bond servant | mu̇zyàànà |
| 728 | slave (female) | muzzyàànàkàzi |
| 729 | slave, (male) | múzyàànà |
| 136 | sleep (vi) | kùgònà |
| 731 | sleep ( n ) | tulóo |
| 730 | sleeping-place, accommodation | $\beta$ ßülàalo, hà sigoono |
| 967 | slip, be slippery | kùnènėtà |
| 1021 | small | ndb |
| 332 | smalipox | ndübi |
| 241 | smell (sweel) (vi) | kùmoota |
| 242 | smell ( bad, of fish) <br> ( n ) | kühùgútá |
| 240 | smell (bad) (vi) | kùnúùnkà |
| 629 | smoke ( n ) | lyoonsi |

KigèndéKitoòngwè

| kưừmyá lyơonsi |
| :---: |
| － |
| － |
| nsóká |
| － |
| kunisila |
| kùnùùnsyà |
| kükòlòmé |
| bừơóngó |
| Iwiimbó |
| nyiembó |
| másisi |
| mưōs |
| sillòònda／filoondà | mweèyo mbủyà

nsésé
kutténdá
isùmó
kwisyyá
iswá，isėyà䍖要昜 Kiloorgos
 （u）OuOb itàkà lưzinà／éènzinà éenzinà iviilà́máviilà mulogl mügànyà
ilàkà
Buêèlà éensase kùgàambà ichúmú水桱 lupupi mùzimú múzimu


 510 Si－Suùmbwà


KiBèndé/KiTòỏngwè
 kupàká?
kusààmbáà
sisimá? kügüùnsà
kusuúnsumalá
kühisyà
kùkàmà
kùkàmà
-
kútütikà, kupaangà
kwiimilita

| SiSủủmbwà siYóombe | KiLdongo |
| :---: | :---: |
| màswàànté | máchwaante |
| kùtààndütà | kuthalaguta |
| kùhòfùsyà | kùhòfưlà |
| külèmàȧzyà | - |
| küßiihyà | küßlinyà |
| mwionko | mwilinkò |
| ¿ßala/ma̧alá |  |
| kumyóólà | kùláßưla |
| kusààmbàazya | kùsàambààlà, kwààlá |
| kwàanzá | kwààlà |
| kümàni̇jkà | kukumůủka |
| kusiliga | kusiiga |
| kúsààmbàalà | kusàámbàala |
| - | eênsoko |
| . | màsinè |
| küpélélèzyà ? | kúßüliliza |
| küsukumala | kúsikumàlà |
| kưhisyá | kwithégà |
| kükamoulà, kuviga | kuvigà |
| kükamoulà kusjéémá | kukàmá |
| - | * |
| küsóozzyà | kusooza |
| kwitmitila | kwèémèlèlâ | 511

kwihitisyà

$$
\begin{aligned}
& \text { (iN) puiq 'Iods } \\
& \text { (in) yonn 'uds }
\end{aligned}
$$

$$
\begin{aligned}
& \text { spoil (a chidd) } \\
& \text { spoil }
\end{aligned}
$$


 against a wall (e.g. to allow another to pass)
squeeze out squeeze. milk squirrel $\frac{0}{3}$
$\frac{0}{3}$
$\frac{3}{6}$ English

$$
\frac{\varrho}{\overline{\#}}
$$

(o^) yoen'uds

C
spoon
spot. speckle apyue ue uiesds spread out (be)
spread
'aq 'peouqe peards become generally known
spread, smear on spread, scatter (vi) spring (of water) spring. machine spy out squat (on the

凡


$$
\begin{aligned}
& \text { kùtaàmbưừlả } \\
& \text { mügoùmbà }
\end{aligned}
$$

kügoloòlà
KiBèndè／KiToongwè kưtùùmbưlà mèènsò kủfùmyá
kủgùndùmùlà ku̇sisüká嗏
¡ßààlé
litáángwà／màángwà ijèlà

intüßà要
 múnyényi／ßányenyi móógga先
 $\begin{array}{cc}\text { English } & \begin{array}{c}\text { Si－Sùùmbwà } \\ \text { Sisitòombó }\end{array}\end{array}$
kuvyooolà miinsó

$$
\begin{aligned}
& \text { küsitùlá ? } \\
& \text { kwißá } \\
& \text { syưùmá }
\end{aligned}
$$ kúsóma ne sùmò kájè／téjé $\stackrel{\pi}{8}$

nkōni
kütóßà
külúùndikà
kưtàaßúlà
múyùùmbà ¡ßwè／mảbwè kükoónkáanyà kwiliyótótả
kùhúúlà
Kilóóngó

$$
\frac{\pi}{8}
$$

$$
\frac{5}{5}
$$

mugèni ngùzủ
kwiigolóólà kúbààmizyà külàsá



| No | English | Sì-Sùùmbwà SíSilỏòmbó | SiSùùmbwà SiYóombé | Kilòongo | KiBèndè/Kitoojgwe |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 487 | strip off (e.g. grains | küku̇u̇zu̇là | küku̇ùzùlà, kùhùtùlà | kùkùùzulà | kukóngà |
|  | of corn) |  |  | ku̇táámbà ? | kwitėhá |
| 519 | strut proudly | kwipona |  | küküumpa | kükuintuaká |
| 407 | stumble | kwilikuumpa |  | kùkȯmá | kütònà |
| 997 | stunted (be); be spoilt | küsisà | Kiguigimita | kưtithàzȧ |  |
| 948 | stutter | küßa nâ kalimi | kigugumia ? |  | ku̇yóópká |
| 594 | suck (the breast) | kwoonnkà | kwoonka | künyu̇únya | kùmimá |
| 480 | suck (vt) | - | -kumima | kütiondá úmùgányà | . |
| 912 | suffer, bear patiently | kwigigumilizya | igúpa | igưpà | igupà'mà ¢úprà |
| 802 | sugar came | igupa | izyóobá | izőo̧ßà | ìsyúúßà/màsyeúßȧ |
| 333 | sun, light | izyoopa | kupilimà | ku̇zóngololká | küsyúùngúlúkà |
| 184 | surround | kupioma | kürnilà | kümila | ku̇milà |
| 438 | swallow | kurnila | kulahilià | kulàhila | kùlàhilà |
| 777 | swear | kulaniua | tuody | èmpüta | kàfità |
| 905 | sweat | mpita | ludy | kuzoólà | kühyảhila, kükóór]káănyà |
| 392 | sweep up, collect in heap (rubbish) | a kumiinga, kuzyoota |  |  | kunyâáhila |
| 843 | sweep | kuthyàagila | kủhyàagilà isėemé | kunyáagina <br> ßùnủzi | -lyóohilté |
| 517 | sweet, pleasant | nseeme | kùvilimbá | kuzziimpa | kuffimbá |
| 51 | swell |  |  | - | lyàambè |
| 608 | sword (short) | lupaanga | upàánga | lùpàángà | lupaàngà |
| 933 | sword | upaanga |  | mu̇chilà | músilá/misitá |
| 360 | tail | mústia |  | kútàahyả | kùtààhyâ |
| 875 | take leave of | kutą̇hyá |  | kwiigėmá ėenzillà | kưkitimà mfûlà |
| 778 | take in (from rain, etc.) | kuhisyà | kwingemá | kùtwààlà | kútwáálả |


| No | English | Si-Süùmbwà SiSilòòmbò | SiSüumbwà SiYóombè | KiLoongo | KiBende/Kiroongwe |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 233 | take off (clothes). undress | kwààmbòla | kwàambôlà | kùzưulà myêènda | kưfưưtà |
| 530 | tangle | - | - | küßúlàgizà | kưjòbàànyà |
| 898 | taste (v) | kùlàpòzyà | kölàßòzyà kußoonzya | küpooonzà | kúbòãjà ? , küliingisyà |
| 985 | teach, instruct | külàànzyà | külàànga | kwėégèsà | kưfüundisyà ? kưaànsyà. külaàngisyà |
| 621 | tears | miisozi | minssózi | màlila | naililo |
| 412 | ten | ikùmi | ikòmi | ikúmi | ikúmi |
| 121 | termite | itèmi | itini | itémi | múswátmiswá |
| 739 | testicle | ivyà | ivyà/mavyà | igosi/màgòsi | itừù/màtừu |
| 1020 | that | èbyó, èyó | iyó | élyó | -lyêlèli |
| 455 | thatched roof | kàno | - | mpatato | - |
| 767 | there | àhà, èyènó | ánàlyà, iyilyả | àhô, ơkü | kơkòli, ưùkȯ |
| 54 | they | àßė | àe | ßönyėnė | Pėèné |
| 44.4 | thick, fat | muginé | -iginé | liginitè | ihàmú |
| 86 | thicket * | isala/masàlá | isalà/màsala | isakà/masaka | Inúúmpù/măhúủmpú |
| 854 | thicket | isalà, ipóolù | isàlà, sisákà | isàkà/másàká | ihuúmpú/màhúúmpú, isigo |
| 619 | thief | mwiivi | mwiivi | mwipi | mwiifi/bèèfi |
| 23 | thigh (of human) | sißiètò | - | ißèlò/mảßèlȯ | itààmbá/màtààmbá |
| 22 | thigh (of animal) | sitààmbó | sitààmbò | chiluùmbü/ßilùùmbù | itààmbá/màtààmbá |
| 559 | thing | siintü | siintu | chiintü | siintüffiintü |
| 987 | think, imagine | kwilgànikà | kwiligànika | kutheèékùzà | kưtàảngàànyà |
| 651 | thirst | nỏótà, ఫ̣kèlò | nôótà | ilihỏ | \#kkáng ${ }^{\text {a }}$ |
| 740 | thorn | liigwà | liigwȧ | lihwai/máhwà | liimfwà/méémfwa |
| 689 | threaten | kittisyà | kituisyà, kwooßßanyâ | kutiolinisa | küyoßahyyà, kükà ya |
| 532 | three | isatu | isátư | isatu | Matú |
| 115 | thrust into | küsòmà | küsómà | küchùmità | kusoomà |
| 420 | tick (cattle or dog) | Пkùhà | ŋkuıuà | eèmbâlâßála | . |


| No | English | Si-Sưumbwa SiSilóombó | SiSưùmbwà SiYoombè | KiLoȯjgȯ | KiBèndè/KiTóóngwè |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1034 | tie (fasten) (vt) | kưßôhá | kußona, kudaliga | kùßohà | kủháámbá, kừháàmbilila |
| 258 | tie up | kùßỏhá | kưßohà | küßohà | küháambà nè ๆkùsà |
| 978 | tingle with excitement | kwiyóólà | - | kwilmúka | kùjilimùkà |
| 119 | tip, point | hà wüu̇gi | Busȯòngȯkė | mühélò | kànsóóngététê |
| 741 | tobacco | itaàßé | itaáße | itaảße | nsuùinkȯ |
| 146 | today | Bülèèló | $\beta$ ưleèló | leélò | bwâalélo |
| 742 | 10e | mùnwè | inóỏnȯ | lùkümù | kàkünó |
| 445 | tomato | nyàánya | nyàanya | ènyȧȧnyà | inyáányà ? |
| 105 | tomeat (half-wild) | siimbưúlù | simbúvóo | mùgóomba | - |
| 743 | fomorrow | igȯlȯ | igȯlò | лėéncà | isoneka |
| 166 | tongue | lừìmi | lòlimi | lùlimi/èendimi | lùlimi/ndimi |
| 120 | tooth (canine), tooth filed to a point | minó | - | - | liinȯ/méeno |
| 267 | footh | binó/mi ${ }^{\text {a }}$ | lino/miinó | liino/mėénó | liinó/mėénó |
| 306 | top, peak | - | - | kàsù | kànsóongélélè |
| 293 | tortoise | fulwe | fuùlwè | sȯgógótè/ mảsỏgógỏtė | - |
| 277 | town | müjini ? | - | ihata | lügóngó |
| 378 | tramp of feet | sisiindó | mùsiindó | chisìndò/nsiindơ | - |
| 270 | travel | kuzzyà lügèèndó | ku̇yùùngà | kùyéélà | kujà lweèndo |
| 540 | tree | múti | mútí | muti | siti/fiti |
| 538 | tremble, shake (vi) | kùzùgumà | ku̇zùgúmà | kùzugùma | kutėtèma |
| 566 | trickle away | kuselèma | kùsülúlókà | kutóónyà | kusỏóßá |
| 401 | trunk (of eleptiant) | kảßikó | käßikò | kälikó | kußookó kwà nsófû |
| 604 | try | kugèmézyà | kügémèzyà | kügèmézà | kuliingisyà |
| 605 | tsetse-fly | nsảȧlé | - | eendóloßso ? | kajeémbeltujeémbè |
| 938 | furn upside down, turn over | kupilusya | küpilüsyà, kupiindùùlà | kùpilùlà | kúhìindülà |

KiBèndè/KiToóngwè

| kusyưngulusya |
| :---: |
| liinó lyà nsớú |
| ihásà/màhásá |
| kus ${ }^{\text {codótà }}$ |
| kùsủkà |
| ifioli |
| ipéelé |
| kufưùndüku̇là |
| ißisi |
| 1ßisi |
| kwiogulu, hèegulu |
| Dwifma |
| kusưßààlà | màsù kútümilà ?

 musipà ?
 $\frac{\stackrel{\text { d }}{5}}{\frac{\text { dig }}{\pi}}$ 은 $\frac{\pi}{3}$ külüka kúlyààtà


| No | English | Si-Suùmbwà SiSilóómbò |
| :---: | :---: | :---: |
| 174 | turn round | kúpilimyà |
| 711 | tusk, elephant's (middle size) * | - |
| 452 | Iwin | ihàsá/máhàsa |
| 185 | twist roll, spin with fingers | kòsumá |
| 483 | twist, esp strands | kupotà |
| 752 | two | ipili |
| 18 | udder | sinena |
| 945 | uncover, reveal | kűfùundưkúlà |
| 551 | unripe, half grown | . il indi |
| 994 | unripe, uncooked | - Bisi |
| 311 | up, above | niigulya |
| 614 | upright | ßwilmé |
| 446 | urinate/defecate | künia, ku̇su̇ßaala |
| 745 | urine | màànsù |
| 569 | use | kúturnila |
| 307 | utmost, highest point | i hiigúlya |
| 904 | vapour, gas | - |
| 380 | vein | mugisa |
| 276 | village | syàaló |
| 692 | virgin (bride), girl | mwààniké |
| 327 | vision | kủßòná |
| 330 | voice, (thunder) | múzwi |
| 224 | vomit | kúlòka |
| 524 | walk (lake a) | kuyêela |



| KiBèndè/KiTȯòngwe |
| :---: |
| - $\beta$ i |
| mùkási |
| küküunjá |
| mùsảyȧ |
| küpéépéétà |
| kưfuta ? |
| - |
| bùlòsi |
| kwiimá |
| külèkà, kwillà siintu |
| múkéémà |
| iindà |
| iyààmbò |
| kujuùßäkȧ, kùjééngả |
| mülimò/milimò, mủsiká |
| kùhààmbả |
| kúkàmà |
| kưgảjútá |
| mwààkả |
| isoneká |
| ùugwè |
| ưùmwe |
| múlüyâtùyả |
| -eenyú |
| mưlüyalüya, mún |


| SiSuùmbwà SiYoómbė | KiLoóngo |
| :---: | :---: |
| - $\beta 1$ | múßi |
| mu̇kàzi, mukké | mu̇kȧzi |
| kùgȯóndà | kưgòóndà |
| mu̇yảgà | mu̇yàgà |
| kwêelùlá | kùhéhėelà |
| kưsyààngólà | küthyágừía |
| wààyà ? | ènyèlèlé |
| Bülozi, Busu̇ni | Bülŏgi |
| kwiimá | kwiimà |
| kwiiyiimá | kwiyimà |
| mùkiòmà/ßakiimá | mùkázi/ßàkàzi |
| ndà | - |
| igàambö/magàambó | igàambò/màgàambò |
| kùzèenga | kwȯómbèkà |
| múlimô/milimó | mùlimó |
| kùgȯòndà | kùgöondà |
| kùkàmướlà | kùkàmườa |
| kwààyúlà | kwiyáyàmùla |
| mwààká | mwaảkà |
| igolo | myeénychilo |
| ópé | iwè |
| imwè | imwe |
| múyààncá, müsùumbà | músigàzi |
| yiinú | yéėnyu |


$\quad$ English
wicked
wife
wind up (thread)
wind
winnow
wipe
wire (brass)
witchcraft
withhold from
withhold from.
abstain
wornan
womb
word
work as a mason
work (n)
wrap up
wring (clothes)
yawn
year
yesterday
you (sing.)
you (pl.)
young man
your(s) (pl. 2nd)
person)
youth


| No | English | Si-Sůumbwà <br> SiSilòómbó |
| :---: | :---: | :---: |
| 292 | zebra | ntúlégé |

## SiSùùmbwà SiYòómbé

KiLòóngó
èèntùlègè
mbééyà ?

Appendix 1. Zonc fromt-list: F22

| No | English | KiDàkámà | KiNyànyèembė | Kikònòòngò | SiGalààgàảnzà |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 133 | atudomen, stomach, belly | nuta | ndà | nđà | nda |
| 495 | abscess, boil | ifliamba | ifila | ipute | iviimba |
| $786 a$ | abundantabound | -pà | -okaila | pa | kôkazyà |
| 786 | abundant | -pá | -ȯkálà | pà | kokázyà |
| 571 | abuse, insult | -dùkaná | -tùkilà | -tơkitả | kòtùkizyà |
| 252 | abuse, reproach | -iyoja | -tokità | tôkila | kutukà |
| 809 | accustomed (get) | -mȧnîla | -lèėndélela | - léndeltéla | -léndélèta |
| 274 | act (vt) | -iita | - Bėézyá | - Béézyà | -ì̀tá |
| 229 | add up | -oóngèja | -oóngézya | -óóngezya | -pomyá |
| 927 | adjacent (be); border (vi) | - $\mathrm{ilmbihánà}$ | Bùbilhi | -ihélà, <br> -ßìmbinkànà | lüßưómba ( n ) |
| 662 | adze, carpenters | mbiizo | mbiizó | mbizzó | mbilizo |
| 254 | affair | munayo | munayo | mùháyô/mihàyó | igaàmbó |
| 1002 | afraid (be) | -ȯgóhá | -ógóhà | -ogóhà | -óogóna |
| 168 | agriculture | kòlìmà | ilimà | ilima | illimà |
| 926 | all | -oósė | woose | -ǒsè | -oósè |
| 248 | atter, change | -piindùla | -galùsya | -gàlùla | -pitòta |
| 595 | animal | ndimú | nyàmà | ndimŭ | ndimui |
| 617 | answer a call | -idíká | -itaukà | -itaukà | kwitảảßilà |
| 782 | answer, reply | -shoooshá | -süßilizyá | -itaúka | -zümyà |




| KiNyànyeembè silaámbà |  |
| :---: | :---: |
|  | kigù̀ù nyưóngù ? |
|  | - |
|  | - Bàamba |
|  | -imikả |
|  | kỏßòkó |
|  | - |
|  | -pààngá |
|  | -ßégèèezya |
|  | -fiká |
|  | isoonga |
|  | isoongà |
|  | màtüundè |
|  | -lóómbá |
|  | -sangila |
|  | seéngi |
|  | -kwêèpà ? |
|  | -ogohà |
|  | mpasa |
|  | ntoumbilif |
|  | kúnyùmà |
|  | múgóngó |
|  | mùgȯȯngo |


| No | English | KìDàkámà |
| :---: | :---: | :---: |
| 664 | ant (reddish-brown biting) | shiiláȧmba |
| 122 | ant-hill | kiguiou |
| 663 | ant (smail) | súúngwa |
| 586 | anvil | - |
| 989 | apply by stretching. spread over | - Ràambà |
| 976 | appoint, set up | -ìmíkã |
| 55 | arm, hand | kikònó/mükònó |
| 771 | ampit | lyàapa |
| 203 | arrange, put in order | - Bėègélèjà |
| 204 | arrange, put right, repair | - ßeèjá |
| 478 | arrive | -shiká |
| 665 | arrow | isȯòngà |
| 666 | amow (head of): spear head | isoóngà |
| 337 | ashes | ißú'màpú |
| 199 | ask for | -lòmbá |
| 89 | assemble, collect (vt) | -lưondikà |
| 789 | aunt (father's sister) | seengi |
| 148 | avoid, dodge | -ėèpà ? |
| 688 | awe, fear of God | Bóosa |
| 667 | axe | mbàsá |
| 364 | baboon, ape | ngưkù |
| 634 | back of (at the) | - nùmả |
| 297 | back | m(i) gooòngo |
| 297a | backbone |  |


| No | English | KiDàkáma | Ki̇Nyanyèembè | KiKonoóngà | SiGalàgàanzà |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | bad | - -3 i | - 31 | - -i i | ipi |
| 37 | bad (become), rotten (vi) | - ¢òà | -pùlà | -wòlà | -polà |
| 87 | bait | chààmbú | chààmbó | càmbó | chàambò |
| 398 | banana (plant) | idoóke | idöokè | $\mathrm{m}(\mathrm{u})$ doouk | m (4) dóoke |
| 397 | banana (fruit) | idooke | idookè | idȯòkè | idơo $\mathrm{kè}$ |
| 399 | banana (for cooking) | idoòke | - | idóỏkè | màdỏỏkè |
| 1005 | baobab | †wààndú | - | mbùyủ | mbùyủ |
| 1022 | bark (of tree) | ìgúla | igóla | igưla | igưtà |
| 313 | barsen (of living being) | muguoùmpa | múgùùmbá | m(ư)güùmbà | mủgùòmbà |
| 314 | barren <of land\} | lyáa bú | hàa ywȧ | kilaang ${ }^{\text {a }}$ | - |
| 376 | base of tree-trunk | itinà | itinà | itínà | itinà |
| 650 | bask (in the sun). warm oneself | -ootá | -odotéla | -óoteléá | kwiyóóntá |
| 576 | basket of open wicker-wom | isáànzò | isảànzo | ntúùngà | itoùundù |
| 577 | basket (plaited) | kikàpú | kikàpó | Пkàpó | kikảpó |
| 643 | bathe | -oógá | -oógá | -oógá | kwòògá |
| 498 | be fitting, behove | kisoga | -fàayá? | -ikùòßôkànilè | -fààyà |
| 1 | be, become | - -1 | - $\beta$ a | - ßá | ku̇ßá |
| 955 | beach, coast, shore | Øwàáni | nwȧàni | நhwàà | mpwaáni |
| 827 | bead(s) | ßùsàlú | wàambó | wȧàmbó | wàmbó |
| 416 | bean, kind of bean (from Phaseolus vulgan's) | strifi | kàpàlà | kafưto | kàpàlà |
| 417 | bean, smail (from bean plant) | màhàlàgè | màhalage ? | mahàâgè | manàlàgè |
| 844 | bean (runner) | - | kàpala | nsilih, kapalà | kafuto |
| 1037 | bear child | -ßyảálà | -pütá | ßyáalȧ, ipékutà | -ßúlá |




| Kinyànyèembè ndèzú |
| :---: |
| -gùmá |
| -sȯgá |
| ùitioli |
| ưlizili |
| nzòki |
| wàalwá |
| -ßéézyà |
| nàánsi |
| -gȯóndà |
| -peeta |
| lơgá |
| - |
| - |
| - |
| Òtémbó |
| nyòni |
| - Bùtá |
| -lûmá |
| -10゙10 |
| - |
| mpófu |
| m(u)gázi |
| -púứà |
| -fùkità |
| -péétà |
| -ßeézyà |


| English beard | KiDałamàa ndèzư |
| :---: | :---: |
| beal | -tòlá |
| beautiful | -sȯgả |
| bed | Bùiǹl |
| bedstead | $\beta$ ßùisil |
| bee | nzùkí |
| beer | walwà |
| Defit, suit | -ßéegeja |
| below, underneath | hàasfí |
| bend, twist (vi) | -igóóndá |
| bend (v) | -igoóndâ |
| bewilch | -lȯgà |
| bifurcation, cross-roads | nzilà mȧákà |
| bile | ndoulila |
| bind up, splice | -làgùtà |
| bird-lime | shèengo |
| bird | nóni |
| bith (give), to a child | -ßyàala |
| bite | -lürna |
| bitter |  |
| bladder | chảasù̀ |
| blind person | m(ư)hớù |
| blood | m(â) gàzi |
| blow on, blow up | -fưula |
| blow bellows | -gußßà |
| blow away | -lưushá |
| boast, brag, praise oneself | -igáámbâ |



SiGalàààànzà
wààtó
mußili $/$ mißililì －sìßòkilà
－阝ìzyà
ifüpá بM，霅落呂
合 ßùta ßùtá קк06ol oxuọomg亮 эreexnus －nià ifüzi －nià ifuzi
总 idàlájà －léétà $\begin{array}{r}\circ \\ \text { 을 } \\ \text { 을 } \\ \hline 1\end{array}$ KỉKònòòngò
máshúwà？ 늘


 KiNyànyeèmbè
 m（ü）kàate
－nià ifüzi －nià ifùzi －nià ffuzzi

màßéele จкпрки －èsyéémà范 | © |
| :--- |
| 世 |告 móàngó

English
boat
body
boil up
boil（vt）
bone
bore a hole
born（be）
borrow
botte
boundary
bow，bending
bow
bowstring
brain
branch
bread
break wind＂
break，snap
break wind
breast fof a woman）
breath，breathing
breathe，rest
bridge
bridge（wooden）
bring，fetch
bring to light
bring up（a child）
brook，stream
bo


| No | English | KiDakàmà | KiNyànyeèmbè | KǐKònò̇ıgo | SiGàlàgàànzà |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 942 | broom | m(i)tėéyú | m(i)teéywe | m(u)tèyè(njè), ceèyó | - |
| 113 | broth | m(i) sùzi | m(i) sizzi | m(ư)sùzi | mùfuá |
| 381 | brother-in-law. sister-in-law | shėmééji ? | $\mathrm{m}($ u) kweelà | m(iu)kwélà | mulkwèèlà |
| 341 | brother (older) | m(u)külù | mùkotió | m(ư)kùlou | iluàmbú |
| 673 | brother, relative, fellow-tribesman | m (u) dog gó | mưdờgó | m(û) ùgú $^{\text {a }}$ | múdờớ |
| 874 | bruise badly, take the skin off | -ikulùmbùlà ? | -tyoùßùtà | -küß̧ılà | - |
| 71 | buffalo | mbogó | mbàgó | mbögó | mbógó |
| 807 | build | -zeènga | -zyeenga | -zyėngà | -zėènga |
| 674 | bull | iyàgáambà | nzàgámbà | nzàgámbà | - |
| 80 | bunch (of hair) | m(ư)sinzi, mȧywillû | müsinzi | m(ü)sinzi, màlúndò | - |
| 890 | burden, load | $\mathrm{m}(\underline{u})$ ligó | mùligó | m(u)ligo | müligó |
| 645 | bum (vt \& vi) | -ßàkà | - ßaká | -ßàkă | - -ăka |
| 233 | bumt (become) | -pyá | -Pàká | -zigá | -zigá |
| 179 | bury | -jïkà | -zyî̀kà | -zytika | -ziikà |
| 555 | bush | ipooolut | ipȯolú | ipóotú | ipóótú |
| 21 | buttermilk | chááßá | mboßóto | mbóßȯtò | . |
| 514 | butlocks | idâkó/màdàkó | idàkô/màdàkó | idakô/màdakó | itảkó/màtảkó |
| 301 | buy | -gừà | -gòlà | -gùla | -gùlà |
| 873 | calabash | nsưhà | kikööndö/ vikȯòndó | kikỏndò, ikòndò | sikơóndó/vikỏóndó |
| 857 | calf of the leg | nsaluta | - | lơsàtưtà | nsàtứlà |
| 877 | calf | kảdàmà | ndamá | naàmá | ndamá |
| 31 | call | iitànà | -itánà | -ilảnà | -itánà |
| 675 | canoe (dug-out) | lyaató | qgàlàßá? | ngàtảßá | ipààngoo |
| 602 | canoe | lyaató | lyaato | lyato | wâào |


| No | English | KiDȧkȧmà | KiNyànyèèmbè | KiKȯnȯòngò | SiGảlàgàànzà |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 993 | carry a child on the back (in a blanket) | -hèèkà | -pèèkà | -peèpá | -peèka |
| 567 | carry/ift on to head (take up) a heavy load | idwiikà | -itwiikà | -itwitika | -itwiikà |
| 97 | carry astride on the hip | -heèkà | -peêka | -ligikà | -Bucusyá |
| 560 | carry, take | -sola | -sola | -soombà | -sola |
| 578 | carry, convey | -sóombá | -sóómbá | -Sóormbá | -sôombá |
| 104 | cat | nyàaßù | nyàaù | nyáaßù | nyàaßú |
| 286 | cattle | mitügó | mitugo | - Bisáwà | miltugó |
| 486 | cease, finish | -shilá | -màà | -màlà | -málà |
| 526 | centipede | nyenzėtėelé | - | itantàßi ? | nzümaalit |
| 247 | change, turn round | -képela | -galouka | -galukà | -pilokà |
| 334 | charcoal | màkàlà | m (u) kàlá | ikàlá/makàlá | mùkàlá/mikàlá |
| 963 | charm (esp. to ensure wife's fidelity) ( $n$ ) | tùkòmóólâ | - | lùkàgó | - |
| 32 | chase (away) | -pèejjà | -pėėzyà | -pėėzyà | -liindả |
| 515 | cheek | itàmá | itàmà | itàmá | itàmà |
| 92 | cheerful (become) | -togwa | -chàngamuka ? | -zaáma | -saangaßßata |
| 106 | cheetah | imoóndó | - | ißalaßalá | - |
| 585 | chest | kiku̇ßá | kìkußà | kikußà | sifùpá |
| 672 | chest (of animals and birds) | kinitni | kidalit | kikußa, kidali | - |
| 431 | chief, neadman |  | muttémi | m(ü)tėmi | mưhányà, múkùlò |
| 431a | chief | m(t)temi | mútémi | $\mathrm{m}(\mathrm{u})$ tėmi, mwànȧángwà | mutèmi |
| 679 | chid, iminat | ŋ̧uaảná | mwàànà | mwảàa, kakèke | mwaànà |
| 597 | child, offspring | ŋwaáná | mwaảná | mwàñá | mwàãná, toputo |
| 886 | chin | kilėzù | kilèzu | kilèzù | kảlèvú |
| 83 | choose | chàagùlà | -saâgùda | -sáagòlà | -sààgùta |


| No | English | KiDàkamà |
| :---: | :---: | :---: |
| 109 | civet cat | itüùngo ? |
| 255 | clan | fùdưgú |
| 841 | climb, ascend | -fèehèla |
| 550 | clod, Iurnp | ilȯȯngó |
| 851 | close (the eyes, mouth, etc.) | -fùumba ? |
| 299 | cloth | kitaàmbảalà |
| 235 | clothe | -2witká |
| 300 | clothes, material | quèndá |
| 305 | cloud | iluiundè |
| 817 | coagulate | -gaènda |
| 941 | cobra (spitting) | swilia |
| 906 | cohabit | -itòómbá |
| 465 | cold | mbêhó |
| 624 | come | -iizà |
| 505 | come on suddenly, take in the act | -diimá, -sàngànijà |
| 230 | construct, put together | - $\beta$ èejja |
| 471 | cook | -zinga |
| 557 | cook in water or fat | -pogomyà |
| 43 | cooking pan, small | kisèmè |
| 385 | cool (become); get well | -polá |
| 265 | copper, brass | shäßâ |
| 283 | copy a pattem | Iondêlejáa |
| 894 | cork, stopper | kikùndikfió |
| 52 | corpse, carcass | $\mathrm{m}(\mathrm{i})$ zógà ? |
| 1001 | corpse (human) | màiti ? |
| 383 | cough (vi) | -kololà |


| KiNyànyeèmbe | KiKönȯóngò | SiGàlàgàànzà |
| :---: | :---: | :---: |
| - | - tüungo | - |
| Bükóo ? | igóóngó | Bukoó |
| -palamila | -línà | -kêtàándá |
| ilóóngó | iwúómbả | ilóȯngó |
| -lùgàà | -kündikilă | -tiindilà, -mùmyá |
| kitambalà | kitàambala | sitàmbàala |
| -zwikkà | -zwiikà | -vwiika |
| mwendá | mwèèndà, myèèndá | mwèndá |
| iliuinde | iliuündè | ilưundè |
| -gàndà ? | -gaàndà | -gaàndà |
| nswîilà | nswilla | nswiflà |
| -iyãánzà | -likâlà nả múhàti wàkwè | - |
| mbênó | mbètó | mbêhó |
| -ilizá | -lizà | -iizà |
| -dimyà | -sàngàníkizyà | -diimà |
| - $\beta$ Bèégélèzyà | -ßeézyà | -ßeėzyà |
| -lèekà | têèkà | -tèekà |
| -sęßyà | -pogormya | -pôtomyá |
| ifutifla | nyüüngù | nsưúmpú |
| -pȯlá | -pola | -polá |
| shàbà ? | - | shàß ${ }^{\text {aj }}$ |
| -loondelezyá | -londelezzya | -loondeézyà |
| - | m(u)fúndikizyò | kipizyò |
| - | m(ü) àmbó | mülàmbó |
| múyagi |  | mülàmbó, mùßiimbá |
| -kosola | -koiola | -kolola |





#    <br>  

## SiGàlagàànzà

 －sàápá－ààpi，ilałpólé lizimà
màkuingilimá
makingilimá
màzùáli
nsiküAùsikò múlyù̀ßßà
 $m(\mathrm{u})$ fü
lufu －nià kukaana －kàanả －
lompy
lome
䨌 －fûkừulà －poùúngókà －kozyá $\frac{\text { 皆 }}{}$高

 $\stackrel{\sim}{1}$




| No | English | KiDàkàmà |
| :---: | :---: | :---: |
| 245 | divide | -gàßula |
| 512 | divorce | ku̇lèkààna |
| 367 | do, complete, finish | -mala |
| 366 | do | -iitá |
| 60 | dog | iwà, mbwà |
| 292a | donkey | nzopé |
| 685 | door | ilügàatilo |
| 415 | dove (red-eyed) | mhùündà |
| 188 | doze | -tiinditâ |
| 529 | draw water (from well) | - dàhà |
| 215 | dream (Vt, vi) | -lóta |
| 328 | dream ( n ) | kilocóti |
| 448 | drink | -गwá |
| 196 | drizzle | màmàto |
| 780 | drop, throw down | -từngúlà |
| 284 | drum | ๆómà |
| 598 | dry (vt), set out to dry | -àànikila |
| 346 | dry | -ààbú |
| 954 | dry up, ebb | -0ùmá |
| 345 | dry up, become dry | -oùmá |
| 289 | duck | mbàatá |
| 243 | dust, cloud of dust | loßuúßú |
| 628 | dwell | -likata |
| 492 | eagemess, zeal | tàmâ ? ŋ̧holo |
| 491 | eagle, bird of prey | loßala ? |
| 583 | ear | ilwi |
| 70 | earth, land | sif |

SiGâlagàànzà nüùng̉ －lyá
nàgá
igí
m（ü）nààné
kakòonkòlà
nzóvú
ikàtàmakala
－kúmbátilà

－pèlà －pùlùgùka | －puima |
| :--- |
| －polena | máàví

－sáná
－wílà
liinsó／miinso 응
号
気
兰 ngòhé
－ßuündáala
Bùsyó
－füßá
 KiKónóóngó kisèmè／visémé，nsúmpú lyá
lyá
ngùzù
igi／màgi m （i）náané kàkőkóolà̀，tüko mشйй，nzópà е阝рэри／ерем！高皆呂 －pilima máàvi
－kiindilà
 －gwà
－dóohà

 English
earthenware vessel
for serving up food
eat
effort，exertion
egg
eight
elbow
elephant
embers
embrace
end（come to an），
cease
escape，recover
examine，measure，
test
excrement，dung
exorcise，drive out a
devil
explain
eye
eyebrow
eyelash
face downwards
face
fade，disappear
faint，lose
consciousness
fall
fall short足守 品

等

 | English |
| :--- |
| fan, wave |
| far |
| fat (be) (of animals) |
| fat (ot animals) |
| father |
| father-in-law, |
| mother-in-law |
| father (my) |
| fear |
| feathers, fur |
| fence, enclosure |
| ferment, fum sour |
| fevf (a ), not much |
| fierce, sharp |
| fig-tree |
| fig-mulbery tree |
| fight |
| filt |
| fill a hole, stop up |
| filter, strain |
| filth |
| final, decisive |
| fine, excellent |
| finger |
| fingemail |
| fire |
| fireplace, hearth, |
| kitchen | 은 足





| No | English | KiDakamà |
| :---: | :---: | :---: |
| 970a | firewood (collect, cir) (v1) | tèmá |
| 413 | firewood | lòkwi |
| 191 | fish up, pull out | -züpà |
| 126 | fish (old Swahili nswi) | ndiilo |
| 190 | fish (vt), trap fish | -zü阝a |
| 400 | fist | Øgümi ? |
| 525 | five | sàảnó, itàànó |
| 493 | flap wings wildly. flutter | -puingilà ? |
| 832 | flatulence | - -Bimbéélwá |
| 384 | flavoured (be propenty ) | feergataila |
| 807 | flower | iúwà/màuwa ? |
| 278 | fly (house) | igi/ngi |
| 1028 | fly (vi) | -làtá |
| 1032 | foam * | màtừó |
| 502 | foam | màtừo |
| 143 | follow (in order) | -loóndéela |
| 142 | follow | -lơòndèèlà |
| 823 | food supply for a joumby | màsààngú |
| 556 | forest | ipootú |
| 584 | forge | -póóndà |
| 889 | torget | - iipilà |
| 458 | fork, bifurcation | mâké, mbânhi |
| 442 | four | iné |


| No | English | KiDàkámả |
| :---: | :---: | :---: |
| 295 | fog | chuedtá |
| 574 | fruit | kisumó |
| 349 | fry | -kalaàngá |
| 936 | fully developed, be | -kùlá |
| 625 | full (become) | -ơòkálâ |
| 316 | garden | Busitáani? |
| 419 | gather (flowers, fruit) | -soogờà, -yôß |
| 91 | gathered (be), assembted (be) | -iku̇miingầ |
| 368 | gazelle (Grant's) | nshà ? |
| 454 | gazelle, small (impala) | ) móònge |
| 108 | genet (kind of speckled civet cat) | itüungó |
| 408 | get, obtain | -pȧandikà |
| 684 | ghost, sudden apparition | mizimú |
| 568 | gicafte | nhwilgà |
| 246 | give away (present) | -fùmyá |
| 443 | give | -linh ${ }^{\text {an }}$ |
| 916 | give light to | -twiirnà |
| 815 | gilde, trickle | Hidukà |
| 269 | go | -jà |
| 639 | go in, come in, enter | -iingilà |
| 63 | goat | mbüli |
| 694 | goat, (he-) | itơlàãgé ? |
| 695 | god | sėéßá |
| 758 | good | -sògá |


| No | English | KiDàkȧmà | KiNyȧnyèèmbé | KiKỏnȯȯggò | SiGàlàgàànzà |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 388 | goshawk (East | lòß ảlà | - | lûláalà | - |
|  | African) (Astur tachiro) |  |  |  |  |
| 68 | grain (of cereal) | lòpiyó, tôßèké |  | mpèsé | tüpėsé |
| 696 | grandfather | güòko | gưoukù | gưùku | gưùkü |
| 697 | grandmother | mààmá | mààmà | maámà | máámà |
| 432 | grasp, hold in arm | -kuúmbatilà | -kùmbátila | -diimà | -vùùmbatá |
| 698 | grass, reeds | iswà/màswà | màswà | màswà | mààwáási |
| 405 | grate | -kwaàlá | -kwàar)gưla | -kwànula | -kwaángula |
| 409 | great, powerful, big | ihányā | -hảnyà | nkoutơ, -kölơ | -kừư, hảnyà |
| 164 | grief, sonrow | - | misààyô | kùnywààgàtà | - |
| 371 | grind (grain with a millstone) | -shȧ | -syà | -syà | -sial-syà |
| 372 | grind coarsely | -hàalà | -pàlàzyà | -palalà | -pâàlà |
| 212 | groove, furrow | mừàlà | - | ๆkiluthit | - |
| 801 | ground, cultivated | mùgơơndà | mùgờundà | m(ü)gùùndà | múgưònda |
| 405 | grow up, get large, become great | -kùà | -küà | -kừà | -kùá |
| 913 | grow (of plants) | -mèlà | -mèlà | -mèlà | -mèlà |
| 461 | grown (be fully) | -kùlá | -kùla | -kòmėėlà | -kùta |
| 373 | gruel, light porridge | hòombá | mủntà | Øhióómbà | Økȯómbà |
| 358 | grunt, grumble | -kümyá | -siimá | -kiïmá | -kumyà |
| 205 | guide aright | -hànả | -héembékà | -löondơơtà | -lờng ${ }^{\text {ojozzyà }}$ |
| 351 | guinea-fowl | Øhhàángá | ikảángà |  | 7kàảngá |
| 701 | gun | \#goóhó | 7góóhó |  | ngoóhó |
| 702 | nair | loywdil? | lunyelènyèté | lùnyelèmyellê | lơnyèlé |
| 977 | hair (long straight- of animals and <br> Europeans) | nzwili ? | òsiiingá | usiinga | kȯsiingá |
| 75 | nair (white, grey) | mvi | mvi | muwi, mbwi | lòvwi/muwi |


| No | English | KìDàkàmà | KiNyànyèèmbé | Kikònòòngo | SiGàtàgàànza |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 703 | hand (flat of) | ipi | ikoóf ? | kigànzà | ikȯofi |
| 157 | hand, right | kutitita | kómuly yita | $\mathrm{m}(\mathrm{u})$ ¢ifilà, m (ü) y iilà | koulità |
| 439 | hand (left) | kùmósò | kúmùmósò | m(iu) mósó | kùmósò |
| 476 | handie, haff | mupini | m(u) pini | mpini | mptni |
| 779 | hang in mid-air | -ènèená | -ènèená | -nìngèèlà, <br> -ninginula | -ėènèènà |
| 655 | hard | ilààmbú | ndààmbú | ilàmbú | ilame |
| 377 | hardship distress | makòyé | màkòyé | lödüko | màkòyé |
| 294 | hare | $\beta$ Bùnáándó | kàsuguóya ? |  | - |
| 781 | haste | mààngưmảàngò | wààngù | wángù | mààngò |
| 795 | nate, detest | - chinua | gàyà | -kiliwa | -gàyà |
| 700 | hay | màswà | - | máswà màkȧzú | mâawaási màtàmé |
| 678 | head chief person | mühànya | mühánya | m (u)külou, m(u)hányà | mühànyà, m(ü)kùtó |
| 356 | head | mùlwé | mütwé | m(ü)twé | mutwe |
| 352 | head-pad | ngàtà | nzingá | \#kâta | ngâtà |
| 561 | heap | ilùòndó | ilùòndó | ilòndờ | itùmbi |
| 391 | heap up, ready/set on fire | -ßảchá | -pèèmbá | -pèmbá móotoo | -peèmbá |
| 623 | near | -iigwá | -ligwá | -dègélèkả | -iigwá |
| 543 | hear | móosyó ? holó | móoyó? | m(u)tima | modyò |
| 944 | hearthstone for putting pots on | màfigá, màtư̆gè | màfigá | ifiga/màtigá | ifigá/màfigá |
| 893 | heavy, serious, dull | itimbui | -tylimbui | -timbú | itioimbé |
| 705 | heel (of foot) | ipààndijò ? | - | kầìnzilà | - |
| 681 | heifer | mướgả | ndogoósa | ndogóosà | - |
| 418 | hem, make a border | -pitnda | -kuoúniá | -pindà | -kùónzá |
| 690 | hen, fow, chicken | ngokó | 7kokó | ฤkòkó | ך ${ }^{\text {kokó }}$ |
| 766 | here | hėėnààhá | hànó | âhà ù ùkò | àhà. ơkó |
| 863 | hiccup | kisékusėkü | - | kilsákwi | kảànsèkú |









English
hunter (professional)
hunting
husband
hut
hyena
I
idleness, sloth
ill (be); groan
ilness, (crippling)
imitate
in front of
in the middle of
incite
increase, make
greater
increase
inheritance
inside, in
inside, middle
intestines
intoxicated (get)
iron ore
iron
island
itch
jammed (become)
jaw (bone)
jealousy

荡



English
joumey
judge (vt)
jump, leap
kidney
kill
king
kite
knead
knee
kneel
knife
knife, thin, cu
broad-bladed
knot
know
lake
lame (be)
lamp
land (dry)
large, great, b
laugh
lay over on one
lazy
leaf, blade of
leaf (tree)
leak, ooze out
lean, bend do
slope
lean on, rely on





| No | English | KiDàkȧmà |
| :---: | :---: | :---: |
| 796 | lean, become; grow thin | -gȧảndà |
| 535 | leaning (be) | -inàmá ? |
| 613 | learn | -ilààjgã |
| 546 | leave, permission | -zunulja |
| 1011 | leave over | -sȧájà |
| 547 | leave, go away | -ì̀̀ngả |
| 544 | leave (off) | -lekk |
| 975 | left over, (be); remain over | - shilgarla |
| 310 | leg, foot | kùgùte |
| 774 | lend, borrow | -áàzimá, lààndà |
| 107 | leopard | nsűßí |
| 878 | lick (vt) | -lààmá |
| 134 | lie down | -làálâ |
| 250 | lie on one's back | -sàgààtàala |
| 791 | lift up, pick up | -inùù\|a |
| 467 | light in weight | mbòuhu |
| 304 | light, sky | iluundè |
| 805 | lightning | lòlápya |
| 657 | lime, whitewash | nswàákàla |
| 213 | line, row | [Joolàange |
| 659 | line, fishing | - |
| 103 | lion | nshiimbá |
| 198 | lip | mùlómó |
| 956 | IIsten | - dègélékà |
| 972 | listless (be) | -nógolékà |
| 1024 | liver | itèmá/itìmá |
| 429 | livestock (keep) | -sảßa |


| Sigalàgadànzà |
| :---: |
| - |
| nzigè |
| -tàlit̀mpa |
| ntalt |
| -tùúnzyá |
| -diima |
| -liijgà |
| -liingaliingà |
| - |
| -nógólékà |
| -làagikà |
| idá/màdá |
| - siimà, tȯgwá |
| ipùùpù/mápùòpù |
| Bulogi |
| mủhindi |
| -iseéngá |
| m(u)goosya |
| 7kópôkó |
| nyingi |
| nyingi |
| kwitoota |
| -tóólà |




| No | English | KiDakama |
| :---: | :---: | :---: |
| 819 | lobster | - |
| 794 | locust | màyigè |
| 155a | long (become) | - Hibhà |
| 144 | long | liihu |
| 131 | look after, care for | -aànga |
| 871 | look after grazing cattle, help a sick man on the road | -diima |
| 354 | look at, examine | -lölà |
| 354a | look around | -tȯlààlȯlà |
| 200 | look for, hang around (to get something), pursue | -igúúßilija |
| 973 | loose (be); faint, weak | -nógólèká |
| 181 | lost, get | -zimíila |
| 1023 | louse | ida/nda |
| 769 | love, want | -togwa |
| 934 | lung | màbe̛ópo |
| 713 | magic * | ßùlògi |
| 714 | maize | múdege |
| 521 | make offerings to the dead | -iseèengá |
| 226 | male | Goóshá |
| 10 | mamba, green (kind of poisonous snake) | kiptii ? |
| 793 | many | -ingi |
| 1019 | many * | -ingi |
| 897 | marriage | witóózi |
| 895 | marry (of man) | -tóolâ |

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541
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| No | English | KiDàkámà |
| :---: | :---: | :---: |
| 896 | marry (give in marriage-of parents, priests) | -tǒójà |
| 814 | master | mutèmi |
| 888 | match, harmonise (vi) | -lengantia |
| 935 | mature | -hanya |
| 596 | meat | nyàma |
| 259 | medicine, remedy | $\beta$ ¢ogótá |
| 260 | medicine (art of medicine man) | $\beta$ ¢ılàgさ̀zi |
| 261 | medicine-man | múfümu |
| 90 | meet | -Sàànja |
| 861 | mell | -àaßa, -nànà |
| 845 | midwife | mukúúnga |
| 859 | migrate, move away | -saárna |
| 1030 | milk ( $n$ ) | màpeéte |
| 20 | milk (curdled), curds | måßêéle gà ßog |
| 19 | milk, (fresh) (n) | máßeèlê |
| 903 | millet (Dullrush) | $\beta$ ¢ ${ }_{\text {celé }}$ |
| 290 | millipede | igóngólo |
| 73 | mix (ingredients, 'season food') | - |
| 72 | mix. put together | -sangilija |
| 363 | monkey (small lightish-coloured) | nhuúmbili |


若


| No  <br> 362 English <br> monkey (colobus- <br> (with long black silk <br> hair, white on <br> shoulders) |  |
| :--- | :--- |
| 361 | monkey (small, <br> dark-coloured) |
| 716 | moon |
| 609 | moonlight |
| 59 | mosquito |
| 436 | mother |
| 65 | mould (pottery) |
| 717 | mountain |
| 163 | mouming |
| 1026 | mouth |
| 272 | movement |
| 979 | mud, mire |
| 642 | mushroom |
| 152 | mutilated (be) |
| 281 | name |
| 539 | namely |
| 403 | nape (of neck) |
| 256 | navel |
| 765 | near |
| 379 | neck |
| 843 | need, request |
| 962 | new |
| 718 | night |
| 755 | nine |
| 484 | nose |




English
palate
patm（date）
pain－wine
patm（of hand）
palm（raphia）
patm（borassus）
palm（oil）
patpitate，fluter．
tremble
parent，she who
begets
parrot
pass，surpass
pati
pay
pay attention，take
care
peel，shell
peg
pegs（tent）
penetrate
penis
penkrife，fancet
person
peste
pig
pigeon，kind of
pile up，pile loads o
head之器の梁



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| No | English | KíDàkámà |
| :---: | :---: | :---: |
| 479 | pinch, make narrow | -shinà |
| 357 | pipe (tobacco) | ntèèmbà ? |
| 552 | pit, hole | tionha |
| 974 | place, put (vt) | -dittla |
| 722 | place ( n ) | hȧȧntù |
| 892 | place of the dead | kdŗhàlikílo |
| 225 | plait | -sùkà |
| 932 | plant, sow | -hàamba |
| 510 | platform | Iùtảlả |
| 834 | please, satisfy (ut) | -igótyà |
| 93 | pleased (be) | -tógishiwa |
| 13 | plot of ground | tôßúógà |
| 647 | plunder (a town) | - |
| 1014 | plunge into, cause to sink | -ponejà |
| 114 | poike | -sóòsèlà |
| 737 | pole, thin | tùgito |
| 111 | polish. clean by rubbing | -nêèjà |
| 177 | pool, pond | Hiảȧmbó |
| 923 | porcupine | nùùngùli |
| 374 | porridge (stifl) | $\beta$ dogàlî |
| 42 | pot (metal) | ikoópó |
| 41 | pot, vessel | kisemè |
| 39 | pot, mug | mùkéébé |
| 40 | pot, cooking (earthen) | nùinggù |
| 749 | polalo (sweet) | kàfu |
| 646 | potter's kiln | itànúlů ? |



 요 品 守品

## Imolitim 1 It turns

Imblutur himeth


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 $\stackrel{\infty}{\substack{1 \\ i}}$
品

| No | English | KíDàkámà |
| :---: | :---: | :---: |
| 1031 | resemble * | likólá |
| 149 | rest heavily on, be burdensome | -lėmèela |
| 964 | rest the cheek on the hand (in brooding mood) | -iidiimáa itamá |
| 957 | rest, take a holiday | -isciuhya |
| 249 | return, go back | -izà |
| 1004 | return | -shȯókà |
| 500 | revive | -permbúólá |
| 318 | minoceros | mhèla |
| 988 | rib | lóßazu̇ |
| 473 | ripe | lyà Bupyè |
| 996 | ripen (vi) * | -pyá |
| 472 | nipen (vi) | -Pyá |
| 209 | river | móóngó |
| 239 | roar, rumble | -hula |
| 644 | roast | -oócha |
| 350 | roast (inlby fire) | -twìmà |
| 806 | rock | iwe |
| 291 | rooster (cock) | ikutuguutumė |
| 169 | root | muzi |
| 29 | rotten | iBi, -Bolé |
| 1012 | round (be) | -igonzélá |
| 183 | round (go), fum round | d -igónzá |
| 999 | round, pecome | - Bilingà |
| 110 | rub | - kula |
| 503 | rubtish, garbage | Bèchála ? |




 English
rubbish heap
run
sacrifice
salt
sand
satiated (be); have
enough to eat or drink
satisfy
say to, tell to
scorpion
scrape
scrape, grate
scratch, grate
scythe, sickle
search for
search diligenilly
seat, stool, chair
see
seed
seize
self
sell
send
separate, set apart
separate, leave each
other
sel a frap
set (of the sun)




| KiDakama |
| :---: |
| -leèmbeéla |
| mpúṅıàtı |
| -simá |
| -sùmá |
| - 10 ómbá |
| chiniini |
| nsòni |
| nsooni |
| nsóni |
| -cougiha |
| -nòota |
| -mȯȯgà, -scuónzúólá |
| weei |
| hôlȯ, phòlô |
| nshiimbi |
| nstilimbi |
| Пki̇ígà, lù |
| $\mathrm{m}(\mathrm{u})$ tùóndí |
| -détèma |
| - détėmá |
| 7gühi |
| iguoundi |
| ißègá |
| -yògá |
| -ikúná | English

settled (be): be in
good order
seven
sew :
sew
sexual intercourse
with (have)
shadow, shade
shame, disgrace
shame
shame, modesty
sharp (be)
sharpen
shave
she, he
sheep
shell, cowrie
shell
shield
shin (bone)
shiver, shudder
shiver
short
shoulder, tip of
shoulder
shout
shrivelled (be):
winkied








品



| No | English | KiDàkáma | KiNyànyèembè |
| :---: | :---: | :---: | :---: |
| 464 | spirit (disembodied) | mùzimú | mùzimú |
| 683 | spirit (evil) | mùzimú | mu̇zimu |
| 582 | spit | -ưugà | -ưưqa |
| 533 | spittle | màté | màtyé |
| 601 | split, crack (vt) | -tàȧndùlà |  |
| 951 | spoil, blind (vt) | -hôfúshà | -pófüzyà |
| 649 | spoil (a child) | -legéla | -sènèkà |
| 998 | spoil | -Piipyá | - -3ipyâ |
| 813 | spoon | müdirinhó | m(u)tiinkó |
| 5 | spot. speckle | ibảđó, idolié, | ißalá/màßàtá |
| 959a | sprain an ankle | -tègưkâ | -lègúlò̀ ${ }^{\text {a }}$ |
| 141 | spread out (be) | -eènélâ? | -sàambazyà |
| 527 | spread | -àanzà | -ààzà |
| 908 | spread abroad, be; become generally known | -kùmướkâ, -ėenêlá? | -mànyikà |
| 592 | spread, smear on | - ̧iliá | - Fiila |
| 591 | spread, scatter (vi) | -sȧambaálá | -sáàmbala |
| 880 | spring (of water) | nzwitiô | móngó |
| 965 | spring, machine | mưtàámbó | - |
| 866 | spy out | - Bưưgilijá | -pelélèzyà ? |
| 849 | squat (on the haunches) | - Hơưndá | -sơơnzúßala |
| 991 | squeeze oneself up against a wall (e.g. to allow another to pass) | -isúmá | -pényèzyà |
| 914 | squeeze out | -kàandȧ | -minyá |
| 343 | squeeze, milk | -sheèmã | -syeemá |
| 102 | squirrel | - | linkàla |


| Kikònóȯgó | SiGàlàgàànzà |
| :---: | :---: |
| mùzimú | muzimú |
| muzimú | muzimú |
| -tuiugá matyé | -tùugà |
| màtyé | màté |
| -tààndờìa, -nènả | tààndùtá |
| -hòfissyà | -pofutà |
| -sènékà | -nyènyéka |
| -piipya | -阝iipya |
| m(u)tiinko | mütifink |
| i¢alá, ibado | ißảa |
| -tègólà | -tyėègùkà |
| -sàámbáalà | -saámbáalá |
| - àanzá | -aanzza |
| -mànyiikà | -mànyïlià |
| - Bilá | -isiga |
| -sáambáala | - sàmbáááa |
| kảsè̇là | - |
| mütààmbo | mưtààmbó |
| - Bưúlizyá | -pêlétėzyà |
| -sưnzưßalas | -sướnkúmàlà |
| - hhégà | -iisyáánà |
| -kàmá | -kàmóvilá |
| -kamá -syèmà | -kàmá |
| kâwưùndi | - |






In matuharlinmin




| No | English | KiDàkámà | KiNyànyėembè | Kikónóongò | SiGalàgàànzà |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 530 | tangle | -tùngwa | - | lêétá ưlààmbú | -pòmyá |
| 898 | taste (v) | -ßoonjà | -lozyà | -gèmá | -Boonzyã |
| 985 | teach, instruct | -hảná, -làñjà, -lààngả | -lààngà. -heémbéka | -hèémbéká | -fưundifsyã |
| 621 | lears | miisózi | naililiò | milsózi | mìnsózi |
| 412 | ten | ikùmi | ikùmi | kòmi | ìkùmi |
| 121 | termite | miswá | m(i) swá | $\mathrm{m}(\mathrm{u})$ swà | mùswá |
| 739 | testicle | idưusù | itưunyà | matưưnyâ | ivyá/màvyà |
| 1020 | that | ìyó | iiyo | iyơ | iyo |
| 455 | thatched roof | hâándi | iPandà | kwigúlyà | - |
| 767 | there | đ̀kȯ | àhȯ, ùkò | áàhò, ùkò | àhò, ùkȯ |
| 54 | they | Booil | ßènikili | àawo | aßó |
| 444 | thick, fat | iginù | nginu | ngìnú | -ginú |
| 86 | thicket* | màsåkà | isákà | isákà | isȯkóólà |
| 854 | thicket | isâkà | isakà | kasâkà | isokoota |
| 619 | thief | $\eta$ wiipi | mwipi | mwipi | mwizi |
| 23 | thigh (of human) | itàángó | itàángo | itàãngó, màtaángó | itàángó |
| 22 | thigh (of animal) | kotààmbo | itààngó | itaàngoó, màtàangó | ilaángó |
| 559 | ming | kìmhó | kimo | kifnú | siintè |
| 987 | think, imagine | igánikà | -igànikà | -igánikà | -igánika |
| 651 | thirst | noótâ | nyơotà | nyouotà | nyơotá |
| 740 | thom | liintwà | llintuwà | liihwà/miihwà | ligwá |
| 689 | threaten | -ógôhyâ | -kaánga | -obóhyà | -oogohya -kaangá |
| 532 | three | idatón | idatuolyâato | itatứ, idátú | itatú |
| 115 | thrust into | chimà | -kima | -kimà | -somà |
| 420 | tick (cattle or dog) | ikùùndyá | qkùùndyá | nkkuùndyà | tìpkúpà |
| 1034 | tie (fasten) (v) | -tüurgáa | -tüungà | -từinga - -ügala | - tüunga |
| 258 | tie up | -tưùngá | -tùungá | tưừngá | -tưünga |
| 978 | tingle with excitement | isàtờà ? | -itimuilita | - | -isisimùlà |



| KıKonoorgo mpèló |  |
| :---: | :---: |
|  | su̇ùighò |
|  | wàaléeló |
|  | lyaâta, limkumwa nyàànyà |
|  | kimbúlu |
|  | igolo |
|  | iolimi |
|  | màsóngà mbwà |
| liinó/minó |  |
|  | mpelo |
|  | gúumàati |
|  | kààyă |
|  | lòkiindó |
|  | -yưumba |
|  | $\mathrm{m}(\mathrm{i}) \mathrm{t}^{\text {d }}$ |
|  | -tetermà |
|  | - |
|  | kàßêkó |
|  | -gèmà |
|  | kàgėèmbe |
|  | -gâlòla |
| -pilimya |  |
|  | mínớ gà nzößư/mpuli |
|  | màpàsá, màßàsá |


| KiNyànyèembè |  |
| :---: | :---: |
| nsiùinko |  |
| wààléèlò <br> lyaálá, tinkuumya |  |
|  |  |
|  | tònyáànyà |
|  | - |
|  | 19010 |
|  | lòlimi |
|  | - |
|  | liinó/miinó |
|  | higùlyà |
|  | - |
|  | múji ? |
|  | lukiindó |
|  | -yoúmbá |
|  | mùti |
|  | -tètèma |
|  | -sulóla |
|  | - |
|  | -gérmá |
|  | tȯgèémbé |
|  | -galola |
| -pilimya |  |
|  | fiinó lyà nzovư |
|  | màpásȧ |


English
tip, point
tobacco
toe

$$
\begin{aligned}
& \text { tomcat (haif-wild) }
\end{aligned}
$$

tomorrow
tooth (ce

$$
\begin{aligned}
& \text { tongue } \\
& \text { tooth (canine), footh }
\end{aligned}
$$

tiled to a point
tooth
top, peak
tortoise

$$
\begin{aligned}
& \text { town } \\
& \text { tramp of feet }
\end{aligned}
$$

travel
tree
tremble, shake (vi) trickle away trunk (of elephant) try tsetse-fly tum upside down
over tum round tusk, elephant's (midale size) * (1) M
等


|  | KiKonoongé -pèega |
| :---: | :---: |
|  | -pérégà |
|  | ipilf |
|  | kißéelè |
|  | -kündúkùla |
|  | itindi, - $\beta$ isi |
|  | - $\beta$ isi |
|  | higúlya |
|  | wiima |
|  | -nià, -sujpààà |
|  | mȧtu̇unzi |
|  | -tomila |
|  | kwigùlyà |
|  | itütù |
|  | m(u) sipa |
|  | igùngùli |
|  | mwâniki |
|  | ndóosti |
|  | m(ü)zwi |
|  | -lùká |
|  | -ycoúmbá |
|  | -ya |
|  | igèlélé |
|  | -kȯő\à |
|  | wóldgù |
|  | 7giti |
|  | -ipyáágúlà, |
|  | - Syẻènėntėla |



| KiDakàmà -sogota ? |
| :---: |
| -shißa |
| ipili |
| kißėèlê |
| -ku̇undúlà |
| - Btst |
| -Bisi |
| higólyà |
| wima |
| -nyà, -súßâala |
| mâà ${ }^{\text {a }}$ |
| -tòmilà |
| haikkilo |
| ßòsèßú ? |
| 7wàanzi/myaànzi |
| kjpàànđá, iguoùngú |
| mưủnyhá |
| ßojßoni |
| lukdßa |
| -tùká |
| -yùímbá |
| -ja |
| hàandi |
| -kòoßa |
| polergó |
| 7, itit |
| -ishėnėènha |


| English |
| :--- |
| twist roll, spin with |
| fingers |
| twist, esp strands |
| two |
| udder |
| uncover, reveal |
| unripe, half grown |
| unripe, uncooked |
| up, above |
| upright |
| urinate/defecate |
| urine |
| use |
| utmost, highest point |
| vapour, gas |
| vein |
| village |
| virgin (bride), girl |
| vision |
| voice, (thunder) |
| vomit |
| waik (take a) |
| walk |
| wail |
| want, need, wish |
| war |
| wart-hog |
| wash oneself (after |
| evacuating) |




| KiNyalnyeèmbè | KiKònoòjgó |
| :---: | :---: |
| -kiuisà | -ikảläßà |
| -kàánzà | -kâonzá |
| -ȯȯgá | -oógá |
| mituzi | miinzi |
| -teúlolata | -lȯgóolotala |
| iiswé | yuiswé |
| - | -nógoléku |
| lekyà | -lècà |
| -vwàala | - zwàalà |
| -füùmá | -símá |
| detiimbu | - ßertimbú |
| mionzi | bwiinzi |
| -lößà | -tótà |
| ki | kf |
| iki | yifhè |
| mutuónzi ? |  |
| muzyüùngui | muzu̇ngù |
| yààpė | mweetç, yãapé |
| nààni | inàȧıi |
| mbi | m (u)kénàgùzi |
| m(u) kiima, m(u)ke | $\mathrm{m}(\mathrm{i}) \mathrm{kiz} \mathrm{m}$ mà |
| -kùơnjá ? | pilimyà, piligà |
| múyàgá | mbèhó, mùyàgà. kiküngàlyà |
| -pėelà | -hèhá, pééta, -hèhééluzya. |
| -fütả ? | -pyààgólà |


English
wash (hands)
wash (clothes)
wash, take a bath
water
wave, let off a trap,
remove a spell
we
weak
wean a chldd, give
leave, send away
wear, dress
weave, knit
weight, thythm
well
wet (get)
what?
which?
whisthing
white man
white
who?
wicked
wife
wind up (thread)
wind
winnow
wipe



| KiNyànyeembè | KiKȯnoóngo |
| :---: | :---: |
| - | - |
| wùlòzi | àlögi |
| -limá | -iimá |
| -iyuimá | -iyiimá |
| m(u) kifmà | m(ü)kitma |
| ndả yà ùwòtí | vyáȧzyééngi |
| muhàyò/mihàyó | múháyȯ |
| -zyénga | -zyėèngà |
| mùlimô/milimó | mülimo |
| -gòòndà | -göòndà |
| -kamá | -minya |
| -ȧàyúla | -âàyùlá |
| mwàkȧ | mwẩkả |
| igobo | igolo |
| èèßé | ßeèßé |
| iinwé | yilinwé |
| m(ù)sưùmba | músườmba |
| yiifue | yiinwe |




| English abundant | KimùnàSưkùmà kỏkólà |
| :---: | :---: |
| abuse, insulf | -dùkilâ |
| abuse, reproach | -sókómbeja |
| accustomed (get) | -maniila |
| act (vt) | -itita |
| add up | oóngèjȧ |
| adjacent (be); border (vi) | -loleéla, -zeeenganwa |
| adze, carpenter's | mbiizó |
| affair | mhàyỏ, ŋgùnỏ |
| afraid (be) | -óogóhá |
| agricuiture | ilima |
| all | -pyè, oósè |
| alter, change | -gàlùchà |
| animal | ndimú |
| answer a call | -idika, shóokejja |
| answer, reply | -shỏóshả |
| ant (reddish-brown biting) | shililààmba |
| ant-hill | shigùle |
| ant (smali) | sùúngwà |
| anvil | ipȯòndèlo, ikòmélėlo |
| apply by stretching, spread over | -ßàambá |
| appoint, set up | -imilichà, ìmàlijà |
| arm, hand | †kòno |
| armpit | mhangwà |
| arrange, put in order | -toondá, -paangà |
| arrange, put right, repair | - (ßèegélèjà, -shòókèja |
| arrive | -shikà |
| arrow | isȯȯngá |




| Jinakitiyãntwè, sòno |  |
| :---: | :---: |
| ißü/màßü |  |
| gùloómbá |  |
|  | gùsỏogà, gùsòlèleja |
|  | seéngi |
|  | gwiliga |
| ßóőßă, lyógòhyà, gùzủnyà mbasa |  |
|  |  |
| Пgòko |  |
| nümà |  |
| ngoóngò |  |
| isànàgóóngó |  |
| -Bi |  |
| gúßòla |  |
| cààmbó |  |
| ndooòké/midojòkè |  |
| idȯokè |  |
| idóókè |  |
| ๆ̣wààndô |  |
| ìgúlà |  |
| ndâasà, ngùùmbà |  |
| ibààmbásí, İwȧawa |  |
| itina |  |
| gơờì sảnã < gỏótà ísánà < gỏòtả is sànǎ |  |
| càảnjó, nđàndàmô |  |
| jigábù |  |
|  | góȯgà |
|  | gưßiiza ceeenè, goshigàana |

KìmúnàSükùmà
ichimú, ntwè gwi' chìmủ màßù

-     - ilìingâ, -kùmüùngá sè̀ngi
-lèkà, -gwèépà
Buzùnyá mbasa ngò kounuma isànàgoỏngò $-\beta i$ - ßỏ̀à wàmbó idōōkè ndòòkè idooke Øwààndó igướlà, igaáảmbà ngừùmbà phàzù itinà
ngönó
shigàbù
-oóga
-igètâ
English
arrow (head of); spear head
ashes
ask for
assemble, collect (vt)
aunt (father's sister)
avoid, dodge
awe, fear of God
axe
baboon, ape
back of (at the)
back
backbone
bad
bad (become), rotten (vi)
bait
banana (plant)
banana (fruit)
banana (for cooking)
bacbab
bark (of tree)
barren (of living being)
barren (of land)
base of tree-trunk
bask (in the sun), warm oneself
basket of open wicker-work
basket (plaited)
bathe
be fitting, behove

要

| KimủnảSukkurnà |
| :---: |
| - fii, -fiizâ |
| Øhwaani |
| Busȧlư |
| ndựtủ |
| mảhàlàgè |
| lüshiili |
| - ßyazala |
| ndèzus |
| -tơta |
| yà wilzà |
| ¢0̀tin) |
| Bùliills, lùtàtà, itư/mảtù nzoiki |
| waalwa |
| - ßẻèléla, -ligèlà |
| hàsilitil |
| -pì̀nda, -sobyya |
| -gooonda |
| -loga |
| nzilả mảakk |
| ndòtù |
| -lagula, |
| willembō |
| nóni |
| -Pyàalá |
| -luma |
| ndulu | English

be, become
beach, coast, shore
bead(s)
bean, kind of bean (from
Phaseofus vulgaris)
bean, small (from bean plant)
bean (runner)
bear child
beard
beat
beautiful
bed
bedstead
bee
beer
befin, suil
below, underneath
bend, twist (vi)
bend (vi)
bewitch
bifurcation, cross-roads
bile
bind up, splice
bird-lime
bird
bith (give), to a child
bite
biter



 English
bladder
blind person
blood
blow on, blow up
blow bellows
blow away
boast, brag, praise oneself
boat
body
boil up
boil (vt)
bone
bore a hole
born (be)
borrow
botlle
boundary
bow, bending
bow
bowstring
brain
branch
bread
break wind*
break, snap
break wind
breast (of a woman)


| odeestio | exups＇pdpesif | OTOM！ | useqejes | EL8 |
| :---: | :---: | :---: | :---: | :---: |
| еமกธ๐ | ¢10606 | P！̣6－ | Anq | 108 |
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| axnseur＇opogodeu | opotogew＇ouphipu |  |  | 12 |
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| ечวопumyp6 |  | elarua． | 3и6ı or fuya | 126 |
| عบиą̣m6 | セ̧ucęm6 | セฺบ家き－ | чpıj＇6upq | 988 |
| рчueepo | ouveppel | 913P1 | （uәpoom）әбpuq | 6 EL |
| oqueepe｜ | olueepen | orpypquepur | eбpuq | 8 El |
|  |  |  | Isas＇aypearq | $06 \%$ |
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| nzmıneu！ |  | ¢ฺunynsẹunury | 4s！6u3 | ON |

$$
\begin{aligned}
& \text { English } \\
& \text { calf of the leg } \\
& \text { calf } \\
& \text { call } \\
& \text { canoe (dug-out) } \\
& \text { canoe } \\
& \text { carry a child on the back (in a } \\
& \text { blanket) } \\
& \text { carry/lift on to head (take up) a } \\
& \text { heavy load } \\
& \text { carry astride on the hip } \\
& \text { carry, take } \\
& \text { carry, convey } \\
& \text { cat } \\
& \text { cattle } \\
& \text { cease, finish } \\
& \text { centipede } \\
& \text { change, tum round } \\
& \text { charcoal } \\
& \text { charm (esp. to ensure wife's } \\
& \text { fidelity) (n) } \\
& \text { chase (away) } \\
& \text { cheek } \\
& \text { cheerful (become) } \\
& \text { cheetah } \\
& \text { chest } \\
& \text { chest (of animals and birds) } \\
& \text { chief, headman } \\
& \text { chief }
\end{aligned}
$$



| Jinảkììyá |  |
| :---: | :---: |
|  | ๆwȧȧná, nigìni, ๆweèlééle |
|  | ๆ wààná |
|  | jilèzủ |
|  | gùcàágùta |
| jèewe |  |
|  | ntaila, lùgàanda |
|  | gưliinhá, gu̇dàànha |
| ikiíndó, itoónhó |  |
|  | gòlilimà (eyes), gùmimyă (mouth, anus), |
| jitààmbàlàlà |  |
| gòzuikâ/gùzwì̀kà |  |
| $\eta$ wèerıda/miènda = myendă |  |
| ìluùndè/málüùndè |  |
| gollààlâ |  |
| fitlà, jipalanooongà |  |
| gwilààlâ |  |
| mbehò |  |
| gwizà |  |
| gưsảngànìjà, gùtùga |  |
| gúßèèjà |  |
| gozu̇gà |  |
| gútogotyả, gùsỉ\|rucà |  |
| lößiga, lusenèkō |  |
| gùpólà, gưhỏla |  |
| shàßà? |  |
|  | gúlóndėlejá |
|  | gókóùßilijá |


윤

| No | English | Kimu̇nȧSüku̇mà |
| :---: | :---: | :---: |
| 894 | cork, stopper | ikùndikíjó |
| 52 | corpse, carcass | miimbă |
| 1001 | compse (human) | mili |
| 383 | cough (vi) | -koltóla |
| 4 | count | - $\beta$ àlà |
| 100 | country (our) | si |
| 14 | courtyard | lùgààngà |
| 852 | cover (up) | -kündikija |
| 285 | cow | Øóombe |
| 1003 | coward | ท̄oßà |
| 335 | crab | igègèlèkà |
| 520 | crawl, creep | -lảàndààlá |
| 612 | cricket | tondógósȯ |
| 153 | cripple | nèma |
| 803 | crocodile | ๆwilinà |
| 319 | cross (a river) | -kila |
| 846 | crow ( n ) | ๆhùv̇ๆgúvilo |
| 308 | crown of the head | ntwè gáti |
| 79 | crumple | -hảlipula |
| 370 | crush by pounding. pulverize | -komààngâ |
| 393 | crust | Bugokwa |
| 160 | cry, wail | -lila |
| 966 | cucumber, small | liimbè |
| 736 | cudgel | Øhoómé, lűßügù |
| 165 | cultivate | - lima |
| 950 | cure, cool, heal | -pojáa |


| JinàKììyà | GinàNtùzú |
| :---: | :---: |
| icipijô, ìkùndikfjò | ikùndikijò |
| miimba (mu-ßiimbà) | nyàmàfü ? |
| mümba | milmbà |
| gưkòlola | gùkỏlòtâ |
| gùßàlà | góßàlà |
| si yiise | si yilswe |
| gwăălùgwȧ, lùßùogâ | \|0゙ßùugâ |
| gừkùndikija, gùkùndikilà, gùgùbá, gùkuủmbả | gưkùùndikijà, gùgübà |
| nooombè | noombè |
| по0ßa | поора |
| ģėgèléhyá | nagà |
| gwààgùlâ, gùshỏơlômà | gwààgủlã |
| jiyèenzé, jinyèènzélèla | sheenyê |
| nèmà | ndèßilè |
| $\eta$ wìnà | ๆưnà |
| gukita | gokila |
| ฤhưungúùtu | ๆhữngoùió |
| Iơondóji, mhȧàndà/nhààndà | ntwè gátì, (lóòndóózi) |
| gùkunã | getiiingàlingá |
| gùpóỏndà, gùbủưdâ gùpóỏndagùla | gờtwààngȧ |
| П̆ükūlù | lügùkòlú |
| gờilà, gừỏólâ | gưlità, gwàȧnà |
| limbē | limbè |
| igoónho/màgoónhó, ìlaànhȧ | Ronhili |
| gùtua | getimá |
| gùpòlà, gúpilà | gùpijà |


| Jinaktìya | GinàNtuzu |
| :---: | :---: |
| gôtėmả, gùßuita, gôtina | gưßüta |
| gòsèèngà | gưswèèkela |
| gưsöònjà, gòsóỏngòlà, gònỏolà, gùpùùnzá | gùpùùnzả |
| gờtâambifila | gôpinà |
| gopinà | güßinà |
| giiti, -pi | -pi |
| giti | giti |
| mảkitingó, gweela | gwààngalu̇kà |
| ikiìngó | gwèela |
| màzươli | ntòndùùngì |
| lơshigú | lùsikù |
| liiml | liimi |
| lì̀mi bû | Himi ji |
| màzười | màzừ̇li |
| mfü | nzümàalizkè |
| 10¢й | 10 sù |
| gưtonà, gükomà, gùßèėgélèja | gưßèègélėjà |
| guènya | gùnyà |
| $\beta$ ßòlèmi | nèmo |
| gùlêmà | gưlėmà |
| gußßiipyâ | gùß iipyâ $^{\text {a }}$ |
| tume | tòmé |
| gờûlàgá | gưßülàgà |
| gúcả < cià | gờchà |
| gừà/cià | gừchà |
| gùfuggừlà, gujjukȯuta | gùsúkėula |
| gùsiimbà | gùsiimbà |



8

| Kimunà Sukuma |
| :---: |
| -gèédélà, -gèchà |
| -dăbyà |
| $\beta$ ßùsósó |
| igùùnguli |
| -gàlilia |
| -lèkaañà |
| -màlà |
| -i̇tà |
| mvà [mıà |
| nzöße |
| nyȧล̇ทีgò |
| mhuuindà |
| -tiindila, hingeeta |
| - đàhà |
| -lootá |
| shiloót |
| ๆwa |
|  |
| -sủùngùtâ |
| ๆómà |
| -àànikilà, -àánikjja |
| nyvormu |
| -tiindòhá |
| -kàmà |
| mbààtà |
| lȯßư̇ßú |
| -igâàshà -likảlà |


| No | English |
| :--- | :--- |
| 466 | diminish, grow less |
| 635 | dip |
| 49 | dirf |
| 680 | district, province, country |
| 245 | divide |
| 512 | divorce |
| 367 | do, complete, finish |
| 366 | do |
| 60 | dog |
| 292 a | donkey |
| 685 | door |
| 415 | dove (red-eyed) |
| 188 | doze |
| 529 | draw water (from well) |
| 215 | drearn (vt, vi) |
| 328 | drean (n) |
| 448 | drink |
| 196 | drizzle |
| 780 | drop, throw down |
| 284 | drum |
| 598 | dry (vi), set out to dry |
| 346 | dry |
| 954 | dry up, ebb |
| 345 | dry up, become dry |
| 289 | duck |
| 243 | dust, cloud of dust |
| 628 | dwell |



| JinȧKìyâ |  |
| :---: | :---: |
|  | jàáhà, hwàabhàăhi |
|  | mbeeshi |
|  | gutū |
|  | Sil |
| lòßĩgà, nủúngù |  |
|  | guolyà/lia |
|  | ๆguzù |
|  | igio/màgì |
|  | inàanè |
|  | 1góokoola |
|  | mhơlì |
|  | İkàláa (lyà mơtơ) $=$ ikảà lyá mótō |
|  | gùku̇mbátílà, gùßưgă |
|  | gòoyà gòshila |
|  | gùpèlùgùkà, gùpilà |
|  | gùgèmà, gùgèlèkȧ |
|  | mààshĭ |
|  | gùlàgùlà, gòßinà ßúfurmũ |
|  | gứhoomèlèjà, gờwitilâ gùsỏómboólà |
| liisō/mìsō |  |
| makuúmbitisò |  |
| lògóhė/ngòhê |  |
| gùßùndảàlâ |  |
| Boshó |  |
|  | gújlmả, gùlimalima, gùjimitita |


| No | English | Kìmu̇nàSükùmà |
| :---: | :---: | :---: |
| 492 | eagemess, zeal | ŋhưumbo |
| 491 | eagle, bird of prey | inàànda |
| 563 | ear | gòtù |
| 70 | earth, land | sì |
| 44 | earthenware vessel for serving up food | liikijo |
| 156 | eat | -lyà |
| 900 | effort, exertion | wihȧȧmbi |
| 273 | egg | igit |
| 443 | eight | inảanè |
| 705a | elbow | igòókóola |
| 329 | elephant | mhulit |
| 336 | embers | ikàlà |
| 842 | embrace | -kùmbàtila |
| 394 | end (come to an), cease | -gèlèla |
| 952 | escape, recover | -pîlà, -pultògùka |
| 899 | examine, measure, test | -gèlėkà, -pilmà |
| 45 | excrement, dung | mààshi |
| 958 | exorcise, drive out a devil | -peèja |
| 784 | explain | -lȯmèèlà, -sòombȯola, -haya |
| 620 | eye | liisó/misisó |
| 828 | eyebrow | Пgóhè, màkủambiisó |
| 838 | eyelash | ๆgohe |
| 587 | face downwards | - Bundaàăă |
| 686 | face | ßùshò |
| 940 | fade, disappear | -shiliila |


KìmunàSùkùmà
-jimà

㗊
kùlè
gìnú
ßảáßà/mààyù ßókȯ
ßaàßã
ßóßa
ßóóyá
ךgitili
|ơlà (gàasà)
-géehù
ๆháli/-kàlì
Øुкoyó
Tua
-chißa
-kènénheja
Bùsósó
ŋ̧hàlikijò < -kàıà 'end'
W
む
き
E
0
0 $\frac{\text { g }}{4}$
$\frac{\pi}{3}$
3





few（a），not much
fierce，sharp


둔
fill a hole．stop up范 filter，strain
filth
final，decisive



| Jinàkiìyâ | GinàNtùzù |
| :---: | :---: |
| lyaalalwalala njaza | byada |
| móotǒ | mooto |
| likj | 陮 $\%$ |
| gùsėenả，gùsoleèlà | gùtùùá ๆheo |
| akwü／ghwi lökö́ク̣hó | की0 |
| gózüßc̀lȧ | gưiȯßà，gozüßa |
| shit | shi，ndiulô |
| gòzüßà | gu̇züßa |
| ๆgümi，jiinhundi | ngúme |
| itaaảnô | itȧảnô |
| gùbàbànà，gùbiibiinȧ | gưbabảnả |
| Ìfuiji，njưuco gúbizüka，ndossó | gơbiizzukka |
| gùloùnga | gònónà |
| $\beta$ ¢uapu，ßulàßo | ßóláßó |
| ๆgi | ngi |
| gòlảlă | golalaj |
| ifülô／mafülo | ifưlò |
| ifülô／máfüló | ifülò |
| gólơòndèjà | gùjiiliiila，gùloòndèèla |
| gơlỏóndejeà，gưkưưßja | gưkừùßijà |
| mhààmbà | mháàmbà |
| ßö，ịpòỏlư | ipódừ |
| gùfùlă | gusůlà |
| gwrìla | gwìißa |
| iflasă，ìpàgàlà | Пgwâkù，logokỏ |
| ìnê | inė |
| daângà | dààngà |
|  | màtwảajô |




$\stackrel{ \pm}{2}$

| No | English | KimùnàSükùma |
| :---: | :---: | :---: |
| 349 | fry | -kâlààngá |
| 936 | fully developed, be | - àalò̀kà |
| 625 | full (become) | -oókóla |
| 316 | garden | shilugu |
| 419 | gather (flowers, fruit) | -yôßa, -süủngùla |
| 91 | gathered (be), assembled (be) | -ipilingà |
| 368 | gazelle (Grant's) | làalà |
| 454 | gazelle, small (impaia) | mhàia |
| 108 | genet (kind of speckled civet cat) | nhuuùngo |
| 408 | get, obtain | -páandikà |
| 684 | ghost, sudden apparition | kàßèeßà, nèngéeji |
| 568 | giratfe | ntwwigigà |
| 246 | give away (present) | -sâamba |
| 449 | give | - iinhá |
| 916 | give light to | -twiimá |
| 815 | glide, trickle | -sela |
| 269 | go | -jà |
| 639 | go in, come in. enter | -ingila |
| 63 | goat | mbờ |
| 694 | goat, (he-) | $\eta$ ¢oùlyăati |
| 695 | god | mütùungû |
| 758 | good | yà wizzà |
| 388 | goshawk (East African) (Astur tachiro) | nutugwe ? |
| 68 | grain (of cereal) | löperkè |
| 696 | grandfather | gưuko |
| 697 | grandmother | màȧmı |



合



| JinalKityâ | GinàNtùzủ |
| :---: | :---: |
| -dààmú/-dààrn -diemú'-diirn | ndimu |
| màkòyê | màkòyè |
| kùr)wààndò | Borja ${ }^{\text {ando }}$ |
| wààggù wàăๆgò | wàângo |
| gùkolwà | gökôlvà |
| màswà mưúnủ | 7gitili |
| ఇwànàăngwà, nkùló, nsùmbá ntààlè | Økujuiwà |
| nwei/mitwe | ntwe |
| ngatata | ngàtà |
| iloùndó, ghưunde | gitȯèndo |
| gòpèèmbá (mòoto)= peèmbá móóto | gùlingitia |
| gwigwa | gùgwà |
| phoilo | ghoio |
| tshigà/màshigà | isigà/màsigà |
| -ditó | nditò |
| ishiliginà | isiginà |
| notogóósà | ndógȯósà |
| göhì̀ndà, gơhìndùlà | gưhitinda, gúptindà, gùtùòlá lobitmbi |
| ngoko | ๆgòkò |
| âhà | àhà, ùkò |
| jisàgámbólé, jisàkuúmbi | gisàgàmulè |
| gujpisaç | gúpisa |
| gưgüundà | güßolà, gùgiùnda |
| jbalalalàa, ipàanda | ipȧándà |
| lùgùto | lògùlò |


| $\begin{aligned} & \text { No } \\ & 655 \end{aligned}$ | English <br> hard | KìmúnaSừkùmà -diemú |
| :---: | :---: | :---: |
| 377 | hardship, distress | mákoyè |
| 294 | hare | sàyàayi |
| 781 | haste | wààngù |
| 795 | hate, detest | -gila |
| 700 | hay | màswa |
| 678 | head, chief person | ntaate |
| 356 | head | ntwe |
| 352 | head-pad | ๆgàtà |
| 561 | heap | iptirit |
| 391 | heap up, ready/set on fire | -komèlá |
| 623 | near | -iigwà |
| 543 | heart | Øholo, mooyo |
| 944 | hearthstone for putting pots on | ihigà |
| 893 | heavy, serious, dull | ndito |
| 705 | heel (of foot) | ishiigina |
| 681 | heifer | ndogoósa |
| 418 | hem, make a border | -pitnda |
| 690 | hen, fowl, chicken | ๆgökò |
| 766 | here | àhà, ùkỏ |
| 863 | hiccup | kiisâkàrmbùtè |
| 800 | hide ( v ) | - ßisas |
| 38 | high, be (of meat) | -ßỏlà |
| 326 | highway | jpáàndà |
| 309 | hill | kàalugùlù |



E




English
idleness, sloth
ill (be); groan
illness, (crippling)
imitate
in front of
in the middie of
incite
increase, make greater
increase
inheritance
inside, in
inside, middle
intestines
intoxicated (get)
iron ore
iron
island
itch
jammed (become)
jaw (bone)
jealousy
joumey
fudge (vi)
jump, leap
kidney
kill
king
kite






| No | English | KimùnàSükùmà |
| :---: | :---: | :---: |
| 547 | leave, go away | -iìngá |
| 544 | teave (oft) | -leka |
| 975 | left over, (be); remain over | -shiigã |
| 310 | leg, foot | gùgùlò/màgùlò |
| 774 | lend, borrow | -gòpà, -bȯkà, (lảànda) |
| 107 | leopard | süpi |
| 878 | lick (V) | láàmbà |
| 134 | lie down | -tàalà |
| 250 | lie on one's back | -sàgàlála |
| 791 | lift up, pick up | -nưungèjja |
| 467 | light in weight | mbùùpù |
| 304 | light, sky | igùlè |
| 805 | lightring | lùlàßi |
| 657 | lime, whitewash | swàảkàlà |
| 213 | line, row | lòhilisì, Bùshóỏlè |
| 659 | line, fishing | Boji |
| 103 | lion | shiimbà |
| 198 | lip | nómo |
| 956 | listen | - deggètéka |
| 972 | listless (be) | -nèdèkà |
| 1024 | liver | itima |
| 429 | livestock (keep) | -su̇ga |
| 819 | lobster | - |
| 794 | locust | njigè |
| 155a | long (become) | -lihà |
| 144 | long | ndihú |
| 131 | look atter, care for | - ȧàngalifa |


| Jinakririya | GinàNtùzù |
| :---: | :---: |
| gwì̀ngà, gùjà, gùpòùkâ | gwiìngà |
| gưlèkà | gùleekia |
| gùsảàgå, gwikàlà | gùsààgả |
| gògòlù/màgùtò | gù̀gùlci/màgólỏ |
| gòlààndà | gùlàanda |
| sußß | süpi |
| gùlàảmbȧ, gưkòliinhá | gùlàambá |
| gòlààlá, gòlàmbàlàlà | gollààmbààlả |
| gưsàgàlàlà | sàgàalit |
| ßơoca, gwiìmilikà | gùßưóchã |
| gùgùùngueméla |  |
| -bừpú | -bùupi |
| ìgùlò | iguole |
| tükùßa | Bùmémé ? |
| fàaggàlá, swảagàlà | ndóßà |
| tềìlilit, nsùlòló, ßỏole | Boblèlé, tugolóole |
| - | ntègó ? |
| shiimbà | shiimba |
| nómó/milòmò | nòmó |
| gùdègèlėka | godegèètékà |
| gưyógóma | gùyȯohả |
| itưma | itèmà |
| gùsàßà | gùsügà |
| - | - |
| njigè | nzigè |
| gùlìhà | gưliipà. gópitilijjà |
|  | ndipù, nipu |
| gülànháná, gulaßßàdâ. gù̀àßíilà | gwàangàlita |

 $\bar{\infty}$


|  | Jinàkììyâ |
| :---: | :---: |
|  | $\beta$ ßùgààngà, ßớfùmủ $\beta$ ßüàgùji |
|  | mfümù, ๆgàángả |
|  | gúsàangà |
|  | gwàaßa |
|  | ŋgàángi, myảàjá gưsâàmà |
|  | mäßèèlė |
|  | màliloto, mą̧óßôto |
|  | mảßẻèé, mȧsưòngâ |
|  | ßüßèlè |
|  | igóóngóli |
|  | gưsàanjá |
|  | gùsàarịà |
|  | nhù̀̀mbilif |
|  | - |
|  | ngökò |
|  | nweej] |
|  | пweèji |
|  | mbō |
|  | mààyô |
|  | gúßùùmbá |
|  | loggôlò |
|  | nhèngo |
|  | nòmó |
|  | tưgèendó, gàjitilé |
|  | Bülờó, tèèmbé | English KìmủnàSùkùmà medicine (art of medicine man) ßùgàángà ß ßörùmu

 Bößèlè millipede igoöngoli mix (ingredients, 'season food') -topèkâ
mix, put logether
-sãanjà monkey (small lightish-coloured) nhờòmbilit monkey (colobus- (with long black silk hair, white on shoulders)


范

| No | English |
| :--- | :--- |
| 642 | mushroom |
| 152 | mutilated (be) |
| 281 | name |
| 539 | namely |
| 403 | nape (of neck) |
| 256 | navel |
| 765 | near |
| 379 | neck |
| 843 | need, request |
|  |  |
| 962 | new |
| 718 | night |
| 755 | nine |
| 484 | nose |
| 211 | number |
| 237 | oar |
| 939 | obstruct |
| 48 | offspring |
| 66 | oil (from plants) |
| 435 | oil |
| 818 | old times, the past |
| 411 | old person |
|  |  |
| 410 | old |
| 214 | one-eyed (being) |
| 440 | one |
| 590 | open mouth wide |
| 984 | open |
| 829 | open (sel ajar) a door |


KìmúnaSưkùmà






| No | English |
| :--- | :--- |
| 820 | peel, shell |
| 12 | peg |
| 11 | pegs (tent) |
| 494 | penetrate |
| 721 | penis |
| 884 | penknife, lancet |
| 558 | person |
| 638 | pestle |
| 312 | pig |
| 414 | pigeon, kind of |
| 579 | pile up, pile toads on head |
| 479 | pinch, make narrow |
| 357 | pipe (tobacco) |
| 552 | pit, hole |
| 974 | place, put (vt) |
| 722 | place (n) |
| 892 | place of the dead |
| 225 | plait |
| 932 | plant, sow |
| 510 | platform |
| 834 | please, satisfy (vt) |
|  |  |
| 93 | pleased (be) |
| 13 | plot of ground |
| 647 | plunder (a town) |
| 1014 | plunge into, cause to sink |
| 114 | poke |

品 荡


| No | English | KìmùnàSükùmà |
| :---: | :---: | :---: |
| 737 | pole, thin | lơßáalè |
| 111 | polish, clean by rubbing | -kùlu̇ùsà |
| 177 | pool, pond | ilààmbó |
| 923 | porcupine | nùòngờ |
| 374 | poridge (stiff) | $\beta$ ¢ògàlì |
| 42 | pot (metal) | igoboó |
| 41 | pot, vessel | shisèmè |
| 39 | pot, mug | Пképè |
| 40 | pot, cooking (earthen) | nüúngò |
| 749 | potato (sweet) | nơoùmbù |
| 646 | potter's kiln | ichomèlơ |
| 369 | pound (grain in a mortar to get off the husks) | -twààngà |
| 441 | pour away | -iità |
| 641 | pour | -sâamyà |
| 748 | pregnancy | ndà, ŋ̧hùùmbṫ, $\beta$ Ôditoo |
| 636 | pregnant, be | kòßi ndà'ßòditó, kùßi ๆhưùmbi |
| 599 | prepare | -ßèèjá |
| 553 | press out (oil seed, sugar cane) | -kèmèkā |
| 986 | produce, put forth, display | -fûnyà |
| 909 | prominent (be); put out | -iifuinyà |
| 518 | pronounce | -hàm(iu)kả |
| 340 | protect by charm (medicine) | -kàgà |
| 947 | protect by charms (target) | -kàgà |
| 475 | puff-adder | shipill |



Kìmunasùkùma - dùtá -itmá -gwéesá, -dúta ¡ßóómbá -shiindikâ -tờ̀là -legà -tuüngá
 -leéndà mbủlá

-tùlà mbủlả iswàalààlà kidikù -ỉdúúsila ? | 응 |
| :--- |
| o |
| a | пgósó ngosó lùgèembè

-sómà
-gèsà -yòßà English
pull
pull up, come to a halt
pull up, root up
pull, drag
pump
push
put, place, set
put together for comparison
put a pot on the fire
put together, compose
python
quarrel (vi)
quench, extinguish
quiet (be)
rain
rain (vi)
rains, the lesser
rainy season
rumble
rat, kind of
rat (field)
rat
rat- (very targe, long-tailed)
razor
read
reap, harvest


| JinàKiryã | GinàNtùzù |
| :---: | :---: |
| gwàànukùlà, gùboke elà | gwànukùlá, gùbòkèèlà |
| idelèe/màdètê | màdètè |
| gùlèmả | gưlèmà |
| gôlèmà, gôlèmejà | gùlèmà |
| gơsàagâ, gwikàlà | gùsààgâ |
| gơsȧàgà, gwikala | gưsààgá |
| gwizùkà | guzòka |
| gwikòlà | gükòlà |
| gwikola | gùkólá |
| gwikòla | gùkolà |
| gùlémèela, gùßunả, gùhėėßà | gußùnwa |
| gwitùlf tàmă < gwitulà fitàmả < gutitulá itàmă | gùtòtá ßùháßi |
| gwifúưtà | gưfưuta |
| gushȯògà | gùshȯokà |
| gùshȯóga | gưshookà nùmà |
| gùpìmbúúcâ, gùjừcà | gùjưocha |
| mhèla | mhèlà |
| toßßazzü/mbàzù | lùßàzù |
| -pilié | -piilè |
| gùpyã | gopya |
| gùpyä/gùpiã | gòpyà |
| móóngó | móóngȯ |
| gưlüundürna, gùnȯòlả, gòlumà, gưhilimà | gùnóơlâ |
| góỏcà, gúkómèlá | goóchá |
| góocà | góóchà |
| jigàngà itàlě | itàlè |

English
receive
reed
refuse, say no
reject, refuse, dislike
remain, stay behind *
remain, stay
remember
resemble "
resemble (very closely)
resemble "
rest heavily on, be burdensome
rest the cheek on the hand (in
brooding mood)
rest, take a holiday
retum, go back
retum
revive
rhinoceros
rib
ripe
ripen (vi) "
ripen (vi)
river
roar, rumble
roast
roast (in/by fire)
rock
GìnàNtuzù
göngưligưừngù, ఇhưưngülümè
nzi
ßózż

$\underset{\sim}{\infty}$


| No | English |
| :--- | :--- |
| 291 | rooster (cock) |
| 169 | root |
| 29 | rotten |
| 1012 | round (be) |
| 183 | round (go), tum round |
| 999 | round, become |
| 110 | rub |
| $50 a$ | rubbish, garbage |
| 321 | rubbish heap |
| 826 | run |
| 522 | sacrifice |
| 723 | salt |
| 95 | sand |
| 630 | satiated (be): have enough to |
|  | eat or drink |
| 788 | satisfy |
| 251 | say to, tell to |
| 783 | scorpion |
| 453 | scrape |
| 855 | scrape, grate |
| 856 | scratch, grate |
| 668 | scythe, sickle |
| 84 | search for |
| 85 | search diligently |
| 738 | seat, stool, chaif |
| 770 | see |
| 67 | seed |
| 404 | seize |
| 611 | self |
|  |  |



| No | English | Kimu̇nȧSükùmà |
| :---: | :---: | :---: |
| 588 | shoulder | ißêga |
| 839 | shout | -hámúkâ |
| 946 | shrivelled (be); wrinkied | -î̀tà miinyà |
| 763 | sick | -sáảtù |
| 870 | sift | -yươnga |
| 615 | sing | - ilmba |
| 3 | singe | - Baßa |
| 980 | sink, be drowned | - tußila |
| 170 | sink | -nwèèâ |
| 726 | sister (his)/ (her) brother | ilùoumbù |
| 627 | sit | -ikalà |
| 753 | six | itảandato |
| 785 | size, measure | - |
| 123 | skin (of person) | ikóßà, ndilili |
| 124 | skin/find (of fruit) | lyưúlà, igóongwa, igàandà, igùvia |
| 303 | sky | Huundè |
| 865 | slander, accuse falsely, often secretly | -saàyità |
| 470 | slap | -tùlà ipi |
| 970 | slash | -tèmà, -fèega ? |
| 220 | slaughter | -siinzà |
| 727 | slave, bond servant | nsésè |
| 728 | slave (female) | nsùgwà |
| 729 | slave, (male) | nsügwà |
| 136 | sleep (vi) | -tiindità |
| 731 | sleep ( n ) | -tù |
| 730 | sleeping-place, accommodation | ndaàô |


| JinàKiliyà | Ginantuzu |
| :---: | :---: |
| îlegà | Bėga |
| gùyogã, gùyogànâ | gwȧànìlà |
| gùnàảlà, gwihoùbá, gwinủlúdâ | gwiità siizùkùlò |
| -sààdù | -sààtù |
| gùyùùnga | gu̇yùùnga |
| gwìmbá | gwitimba |
| gờßàa |  |
| gưlißilâ, gơnwèelâ | gùnwà nhüli |
| golipilá | gùlipila |
| ìlȯmbùóyè | itùòmbù |
| gwigààshà | gùgìshá |
| Itandảtư | itàandâtù |
| nshimơ, ngêtě | ๆgèlèkèlô |
| ìkȯßả, ndili | ikùònzà, ndilit |
| igoula, ikutülù, ikōole | igưoulà |
| ìgèlò, ìlùundè | ituundè, igùlò |
| gưsóonèlejà, gùpờua | gôpòu待 |
| gưpaala | gopaàla, gutola ipt |
| gưsėèngà, gờtèma | gùswèèkà ? |
| gòsìnzȧ | gùsùnzà |
| nsèsè, mfügwà | nsėsè |
| nsèse, mfugwa | nsesè |
| nsèsè, mfugwà | nseses |
| gùlààlá | gùshitùlà |
| tullo | tùlò |
| ndâalơ > golààatâ | ndààtô |



－dólòló，－dó
ndúßí
gùnüùņhà
ìsü，ßùnuüughis
gùnüùnhà
lyócoct，gúbèhax（v1）
lyooci，gúbena（vi）
guziuikà
jgóoka．ligóókū ngóóka
nzȯkà
ntègó gwiyaarmuià gưbèhả，gùnùựhá
gùjȯólà güŋoóà
Buioónho
lyifmbo
lyìmbz
lyìmbǒ
mbilo／ghil mbilb／クhili／mảkili，milàgè nogi Iloonda ilaka lọpoùgâ，ìbàala isasit
góyoombà虽号 gờhóóya
KimùnàSükùmà
－chơolờòkà nđó
yììnà，ndùßi ¡̧waaso（ n ） Bònưựhú，kòpügútà？ －nủùnhà aikita ngóóku，nòongà ngóoukù，nỏongà nzokả niegó à à hà －ityààmúla，ityàamúchá －nùunyhà －hóloóta Bollindo yifimbo mìmbó
milàgè，njiijò，mbilò nogi nhóondo ฤhỏolò，móòyò ilàkà tußßàngá isási yoómbá ichimu
еzuepxpu egnul＇＇eкрои．

|  | KimùnàSükùmà －chờolötukà |
| :---: | :---: |
|  | ndó |
|  | yì̀nà，ndùßi |
|  | Ø̧wảaso（ n ） |
|  | Bùnưưhu，kòpùgità ？ |
|  | －nùùnhá |
|  | lyoóchi |
|  | －zưkiula |
|  | Пgoóku，nòongà |
|  | ךgoókü，nò ${ }^{\text {nga }}$ |
|  | nzookả |
|  | ntègó |
|  | －ityààmúlà，ityàamúchá |
|  | －nùunyhà |
|  | －hòlòòtá |
|  | ßolliindò |
|  | lyiìmbó |
|  | mìmbú |
|  | milàgè，njiiò，mbilo |
|  | nogi |
|  | nhoondo |
|  | ఫhơolo，móosó |
|  | ilàkà |
|  | tûßùàgá |
|  | isási |
|  | －yoombá |
|  | ichimu |
|  | －hóóyà，jimijà màkànza |

English
slip，be slippery
smell（sweet）（vi） smell（ bad，of fish）（n） smell（bad）（vi）
smoke（ $n$ ）
smoke（give out）（vi） snail，slug

snake，serpent snare，trap（n） sneeze sniff，smell out | 든 |
| :--- |
| 5 |
| $\frac{\Phi}{5}$ |
| $\frac{0}{\omega}$ | soil songs＊ sorcerer sore soul，spinit

sound，cry
space（open） space（open）
spark spark
speak spean
spear（ $n$ ）
spend time


| Kimu̇náSukumà wiunè |
| :---: |
| lüßuß |
| linheàngî |
| isâammà［isààmvà］ |
| isàamrva（isammina） |
| －swà |
| mate |
| －ßela |
| －ßòkujà |
| －gegela，－leèndeeja |
| －Biinyá |
| ndì̀nhò |
| màßalà |
| －tèlènhanya |
| －sáambaàa |
| －ààmbá |
| －sâanja，－kümouka |
| － $\mathrm{\beta} \mathbf{i l}{ }^{\text {a }}$ |
| －sáambàala |
| shinyéle |
| màshiinè |
| －dètà mato |
| －mevenda |

> English

品 ल゙ जू
会 愛 品

| Ginàntùzư gügègébékả |
| :---: |
| gùkààndá |
| gúshėèmá |
| gàßüùndi |
| gútùiiità |
| gwiìmiitla |
| sóondà |
| gưmȯgòlá miisó |
| gwiinja |
| gwisàmbúkija |
| gwisàmbúkija |
| gùß |
| chùùmá |
|  |  |
|  |
| Пgueùmbá |
| nàanhà |
| gùbùgusâ |
| gùsàgaja |
| gùlùmyả |
| ivètmàwè |
| güßiliingá |
| gùgólóȯlá |
| Øgèni |
| nûuùma |



KìmùnàSúkùmà -isuündá

-itààmbưkà
ngùùmbà
náángà
-lưßyà
-lüßyà
tuèjâ ?
iwé
-soùmbyà -gobolochá ikèond ikòòndỏ

## English

 squeeze oneself up against a wall (e.g. to allow another tosqueeze out squeeze, milk squirrel
stack pile up stand (vi)
star
stare, glare start off, send away startie, catch unawares startle, jerk steal
steel
stem (of maize, millet, etc.) step over sterile man (or woman) stick
stir, mix by stiring stir stir up store up, collect straight (make) stranger, guest stream, current


$\frac{10}{6}$



| No | English | KimùnàSükùmà |
| :---: | :---: | :---: |
| 778 | take in (from rain, etc.) | -oùßá |
| 565 | take, carry |  |
| 233 | take off (clothes), undress | -zùulâ |
| 530 | tangle | -yàànijuá |
| 898 | taste (v) | -loja |
| 985 | teach, instruct | -lààgga |
| 621 | tears | shiisbiji |
| 412 | ten | ikùmi |
| 121 | temite | nswà/miswà |
| 739 | testicle | màkiṅıà ? |
| 1020 | that | iyos |
| 455 | thatched roof | istimbile |
| 767 | there | àhó, ưko |
| 54 | they | Bobi |
| 444 | thick, fat | 7ginú |
| 86 | thicket * | isåkà/màsákả |
| 859 | thicket | kàsákà |
| 619 | thief | nwipi |
| 23 | thigh (of tuman) | itààngó |
| 22 | thigh (of animal) | gölòumbù |
| 559 | thing | shiunnò |
| 987 | think, imagise | -igganikà |
| 651 | thirst | noòtâ |
| 740 | thorn | liitwed |
| 689 | threaten | -kàànga |
| 532 | three | idatu |
| 115 | thrust into | - chimà |
| 420 | tick (cattle or dog) | Øhưưndyà |


| JinàKi̇̀yã | Gînantuzù |
| :---: | :---: |
| gòvßa | goußa |
| gùsolà | gưß̉̇ùchchâ |
| gùzưûâ | guozùula |
| gứtàßa, gütaßajã | guzwàanja |
| gưloja | gưgèmà |
| gùitààngà, gühėèmbéká | gülààngà |
| jiisojil | milisozzî |
| ìkòmi | ikcomi |
| nswa/miswà, mfa/mifă | nswa/miswa |
|  | mbolo |
| lüpógolormbogòlò |  |
| ìyó | -yó, -chó, -阝ó |
| jisu゙v̇nzio | ifiimbile |
| ahó, Ơkò | anò, Ơko |
| ßóoyi, $\beta$ o | $\beta$ Bobl |
| -gìnŭ, -nȯnŭ | -ginu |
| isăgà | isákà/màsàkà |
| isaga | isăkà |
| пwipi, пwipi | ๆußi |
| itààngó | itààngó |
| jilùtmbè/itàangó | itààngó |
| gituhù, jikölo | gìnhou |
| gwigànikà | gudeta |
| nooola | nòotâ |
| liifà | liiswà |
| gùkàanga | googȯnyâ |
| ìdàtú | idàtú |
| gùcimà, gùsỏmà | gòchima |
| ŋhuuundyà | ghuuundyà |




| No | English |
| :--- | :--- |
| 1034 | tie (fasten) (v)) |
| 258 | tie up |
| 978 | tingle with excitement |
| 119 | tip, point |
| 741 | tobacco |
| 146 | today |
| 742 | toe |
| 445 | tomato |
| 105 | tomcat (half-wild) |
| 743 | tomorrow |
| 166 | tongue |
| 120 | tooth (canine), tooth filed to a |
|  | point |
| 267 | tooth |
| 306 | top, peak |
| 293 | tortoise |
| 277 | town |
| 378 | tramp of feet |
| 270 | travel |
| 540 | tree |
| 538 | tremble, shake (vi) |
| 566 | trickle away |
| 401 | trunk (of elephant) |
| 604 | try |
| 605 | tselse-fly |
| 938 | turn upside down, tum over |
| 174 | turn round |


| No | English | KìmùnáSưkùmà | Jinàkiliyâ | Ginàntùzù |
| :---: | :---: | :---: | :---: | :---: |
| 711 | tusk, elephant's (middle size) * | mhèèmbè | flinǒ, ipeèmbé | liinó, mhėèmbè |
| 452 | twin | màßảsà | ißàså/màßàsā | màßásả |
| 185 | twist roll, spin with fingers | -dòsà | gùdơsà b botã | gòdosà |
| 483 | twist, esp strands | -sóßyà | guebota | goulingaliingà |
| 752 | two | --iili | i $\mathrm{p}_{\text {lif }}$ | ipilf |
| 18 | udder | shinènà | jinénà | ginènà |
| 945 | uncover, reveal | -kùùndùlâ | gờùnòlà, gòkuiùndélá | goùkùnȯlà |
| 551 | unnipe, haff grown | itiindì | itindi, --bisi | ndobßeja |
| 994 | unripe, uncooked | ißisi | - -isi i | -ßisi |
| 311 | up, above | higülyà | higuólyà | hiigúlyá |
| 614 | upright | witmá | wizma | wîmá |
| 446 | urinate/delecate | -nyà, -sưpààà | gưsüß̧àatà, gònyà gottündàgà, | goùnyà, gòtuùndảgà |
| 745 | urine | miinė | minė | miine |
| 569 | use | -tồmilá | gưtưmàmitá | gưtùmàmila |
| 307 | utmost, highest point | \#hàlikijo | jisuounzù | Bökalikjio |
| 904 | vapour, gas | myờ yǐi, lyóȯchi | mycuòyi, myơơyé | ๆưoyòúyù |
| 380 | vein | nwàànji | nwàànil | $\eta$ waànzi |
| 276 | village | chàaló | igưongứlic caalo | gijifi ? |
| 692 | virgin (bride), gint | $\eta$ wàalùki | пwipèernbu | $\eta$ wàànikt |
| 327 | vision | shilơoti | jiloòti | giloòti |
| 330 | voice, (thunder) | nüùndurmò | ṅàkả | liàkà |
| 224 | vomit | tùkà | gólơkă | gôlùká |
| 524 | walk (take a) | - Simiinzâ | gúsimizâ, gùyeèlâ | gưsiminnzá |
| 2693 | walk | -jă | gùsimizȧ | gujjà |
| 847 | wall | ndügu̇ | ndügú | iseèngè |
| 983 | want, need, wish | -likannwá, iikườmva, -dàkà | gúhàyà | gùdàka . gùkừmva |
| 507 | war | Butùgo | 及olugo | ßùlờgó |
| 790 | wart-hog | ngili | Igifit | ngili |


$\stackrel{9}{5}$

| No | English | KimùnàSu̇kúmà |
| :---: | :---: | :---: |
| 860 | wash oneself (after evacuating) | -iishéeneénhá |
| 127 | wash (hands) | -00ja |
| 128 | wash (clothes) | -fùlà |
| 129 | wash, take a bath | -óȯgà |
| 322 | water | miinzi |
| 959 | wave, let off a irap, remove a spell | -50ß001a |
| 1017 | we | $\beta$ Bisè |
| 1010 | weak | ßùdèdú |
| 881 | wean a child, give leave, send away | -gijà |
| 234 | wear, dress | -zwaala |
| 501 | weave, knit | -süma |
| 1015 | weight, thythm | @udide |
| 210 | well | Iwionzi |
| 56 | wel (gel) | -lòßà |
| 919 | what? | ki |
| 469 | which? | ndujki |
| 192 | whisting | shilojel, nùi |
| 175 | white man | nzúngù/ßàzuingú |
| 610 | white | -àape |
| 918 | who? | nàáni |
| 28 | wicked | -àà ß¢¢ßi |
| 339 | wite | Пkìimà |
| 187 | wind up (thread) | liinga |
| 746 | wind | lơyàgà |
| 937 | *i่าก\% | -hèhà, -Eèlà |
| 112 | wipe | -hyàagólà |
| 88 | wire (brass) | Bodoódi ?, wáàyà ? |


| No | English | KimunàSükùmà |
| :---: | :---: | :---: |
| 194 | witcheraft | ßülogi |
| 279a | withhold from | -góßȧ |
| 279 | withhold from, abstain | -Bisila |
| 338 | woman | Øjidimà |
| 747 | womb | ndà, phưumbit |
| 812 | word | mnayo/minayoo |
| 772 | work as a mason | -zèèngà |
| 167 | work ( n ) | nimó/milimo |
| 81 | wrap up | -liingá |
| 344 | wring (clothes) | -kàmá, -bigisâ |
| 773 | yawn | -iiyàhyùlà |
| 593 | year | ךwààkà |
| 750 | yesterday | igòlö |
| 15 | you (sing.) | ßeèße |
| 1018 | you (pl.) | ßiipuè |
| 715 | young man | nyàánda |
| 637 | your(s) (pl. 2nd) person) | ylinwè |
| 693 | youth | nsùùmbà, mủùnyhȧ |
| 292 | zebra | ndướlờ |


| JinảKì̀yâ | Ginantüzù |
| :---: | :---: |
| ßullơgi | ßülogi |
| gwima | gủmà |
| gwilè câ <gùlèkà | gưléchà gwiyiimà |
| Пkima | Tkiimà |
| ndà, nhüumbi | П̧uuimbi |
| mhȧyó | mhayoo |
| gùzėèngà | gòzèrngả |
| nimó/ milimò | nimó/milimo |
| gügȯonda, gòliingá | gouliinga |
| gưkàmă | goukàmá |
| gwààyùlâ | gwảàyólà |
| ¢wàaka | ๆWákà |
| igòlò | igólö |
| $\beta$ eepè | ßeèßè |
|  | $\beta \mathrm{il} \mathrm{m}_{\text {we }}$ |
| jàanda | nyâanda |
| (y) iimwe | iinwè |
| nsùùmbà, ךwàànikj | $\eta$ wààlùki |
| ndưúle | ndướlù |

Apuchatix 1. Zone F word-list: F31

| No | English | Kinàushòòlà |
| :--- | :--- | :--- |
| 133 | abdomen, stomach, belly | ndà |
| 495 | abscess, boil | pyú |
| $786 a$ | abundant/abound | pá, po |
| 786 | abundant | pa, pu |


| Kinilààmbà Central | KinìHàànzủ |
| :---: | :---: |
| ndaà | noà |
| pyúú/màpyóú | iputtè/mápútè |
| miingit | idu |
| poú | ntenyā |


| No | English | Kinàushoola |
| :---: | :---: | :---: |
| 571 | abuse, insull | kütükảná |
| 252 | abuse, reproach | kùkùtàkilà |
| 809 | accustomed (gel) | kòjiilà |
| 274 | act (vt) | kojjipya |
| 229 | add up | küyóngètyà |
| 927 | adjacent (be); border (vi) | kưylimbì x ànà |
| 662 | adze, carpenter's | nsėso |
| 254 | affais | tokkáani/fảáàn |
| 1002 | afraid (be) | kùyóópókà |
| 168 | agricullure | lyima |
| 926 | all | swe, tuitwè |
| 248 | alter, change | kùkàila |
| 595 | animal | nimi |
| 617 | answer a call | küyitika |
| 782 | answer, reply | kóstoòokėèlyà |
| 664 | ant (reddish-brown biting) | nètêli |
| 122 | ant-hill | kigừiò |
| 663 | ant (small) | juindwt |
| 586 | anvil | tyààniló |
| 989 | apply by stretching, spread over | kòkomà |
| 976 | appoint, set up | - |
| 55 | arm, hand | mökóno |
| 771 | armpit | nkwaapa |
| 203 | arrange, put in order | kùpáànga |
| 204 | arrange, put right, repair | kujjipiilyà |
| 478 | arrive | kùpikà |
| 665 | arrow | nsoòng ${ }^{\text {a }}$ |
| 666 | arrow (head of); spear head | . |


| KiniLaambà Central | KinìHaanzư |
| :---: | :---: |
| kưtúkilà | kùtưkilànà |
| kôlàgànilà | kùlèa |
| kökijitià | kizưúlà |
| kưtèenda | kitumà |
| kùyóngėètya | kühàngitinkȧnyà |
| kòkímìmbìilà | mìmbì ( n ) |
| nsėesó | nseeso |
| lùkááni | lòkàni |
| kòyópóka | kȯgópa |
| kilimó | kìlimo |
| sweè | ihi |
| kùkàila | kùkàilà |
| nimủ | m(u) nyàma ? |
| kờiftikà | kilitikà |
| kùshȯȯkėelyà | kùjibù ? |
| nèleli | nyeeti |
| ànìėno | kiguoù |
| nsưngòi | mu̇tuà |
| tưtilio | mwààndà |
| kökómà | kùgỏolà |
| kòyifmikyà | - |
| mò̀kónó | mu̇xònó |
| mpyègènè | kisükósưkó |
| kupàãgà | kùpaànga |
| kùzipyà | kùzipyà |
| kùpikà | kùpikà |
| nsòóngà | mùyi |
| nsoonge | nailima |


| No | English | Kinalushóolà |
| :---: | :---: | :---: |
| 337 | ashes | maù |
| 199 | ask for | kùtómpa |
| 89 | assemble, collect (vt) | - |
| 789 | aunt (father's sister) | sééngi |
| 148 | avoid, dodge | kùshógá |
| 688 | awe, fear of God | kükülyà, külyoómpà |
| 667 | axe | mpóópó |
| 364 | baboon, ape | mpớrimà |
| 634 | back of (at the) | nùmà |
| 297 | back | múgòòngó |
| 297a | backbone | Tjkòmé yà mügóòngó |
| 27 | bad | mbit |
| 37 | bad (become), rotten (vi) | kòyôlà |
| 87 | bait | - |
| 398 | banana (plant) | múgóómba ? |
| 397 | banana (fruil) | ndizi ? |
| 399 | banana (for cooking) | - |
| 1005 | baobab | mwȧándò |
| 1022 | bark (of tree) | - |
| 313 | baren (of living being) | múgu̇ùmbà |
| 314 | barren (of land) | bámbási |
| 376 | base of tree-trunk | shiinkwt |
| 650 | bask (in the sun), warm oneself | ku̇yóótá |
| 576 | basket of open wicker-work | kigȧángė |
| 577 | baskel (plaited) | kikápó |
| 643 | bathe | kuyoóga |
| 498 | be fitting, behove | ilipitile |
| 1 | be become | kûtưà |


| KìniLààmbà Central màú | KìnìHáànzu <br> mảủ |
| :---: | :---: |
| kơoóómpá | kùtoompa |
| ilingùìà | kùhángưilà |
| nòkȯkúlò | mààmâ |
| kòtyèègà | kihejja |
| witekeli | külóompà |
| mpoopo | iheèngo |
| mpúúmà | mpùmá |
| nümà | kònyùmà |
| mơgòòngó | mưgoòngò |
| nkȯmè yà mògòòngò | mùgòòngò |
| mbi | ibi |
| kòyòlà | kuòlà |
| kitėgètò | lùdyà |
| mudizi ? | mưgóómbà ? |
| ndizi ? | ndizi ? |
| - | müzüzû |
| mwàảndò | mwààndô |
| gyóe | igàámbă |
| пgùòmbá | mògúómba |
| ướmi | ijángwà ? |
| tinà/matina | itinà/matina |
| kừyoótá | kòtà |
| kisoónzȯ | kisėme ? |
| kiryo | kikảpù |
| kòyógà | kógà |
| kjippitie | ifaile ? |
| kotứla | kòtưtá |


$\stackrel{10}{6}$


| No | English | Kinàushoólá |
| :---: | :---: | :---: |
| 669 | blood | migàif |
| 496 | blow on, blow up | kùpéémbėèla |
| 238 | blow bellows | kừùgutà |
| 463 | blow away | kùpéembà |
| 776 | boast, brag, praise oneself | kồkisánià |
| 876 | boat |  |
| 670 | body | mwilit/mill |
| 581 | boil up | kùpókota |
| 30 | boil (v) | kưtétèkà, küpyoúpyà |
| 433 | bone | kúpa |
| 564 | bore a hole | kưbósôlà |
| 1008 | born (be) | kúleíwà |
| 910 | borrow | kùkȯpà |
| 872 | bottle | nsúópa |
| 928 | boundary | miimbi |
| 671 | bow, bending | ơớta |
| 508 | bow | ơớtà |
| 953 | bowstring | - |
| 58 | brain | Oónko |
| 509 | branch | lùtáámbi |
| 375 | bread | mükàate ? |
| 831 | break wind * | kùshùlà |
| 77 | break, snap | koùunà |
| 1036 | break wind | kơshùlà |
| 17 | breast (of a woman) | mbelelé |
| 489 | breath, breathing | mwàáo |
| 490 | breathe, rest | kushiüpà |
| 138 | bridge | dàlàjâ |


| KìniLààmbà Central mígàli | KinìHàànzù nsȧkàmi |
| :---: | :---: |
| kùpéèmbėèlà | kùpėèmbéelà |
| - | kùpèèmbééla |
| küpuputyà | kơtùmyà |
| kòkisàmààdyà | kikòzà, kikôlyà |
| - | màshùa ? |
| mwitili/myiili | mwili/miili |
| kơpừtà | kütòkȯta |
| kùpyoúpya | küpyūpya |
| kyúpà | ikúpà |
| kupososolá | kừóbóla |
| koleilwà | koturgwá |
| kò̀kyópà | kùkópà |
| nsúpà | nsúpà |
| mifimbì | mimbi/mimbi |
| Ȯkòtú | ota |
| dùtá | ưtà |
| lòligi | Iòdigi |
| óņkó | oonngwe |
| lơtảámbi | itámbi |
| mükảate ? | múkate ? |
| kùsưulà | kùnùlà |
| koùnȧ | kùùnảngà |
| kosừà | kühùlȧ |
| mbetele | iyeete |
| mwááu | mihùpó |
| kòsuiupa | kùhùpà |
| tiingitiingi ? | idàlàjà ? |


| No | English | KìnàUshȯollà | KìniLààmbà Central | KinnìHàănzù |
| :---: | :---: | :---: | :---: | :---: |
| 139 | bridge (wooden) | - | Iyȧlỏ | kipu̇tilò |
| 885 | bring, fetch | kulėétà | kouléétà | kưtèètâ |
| 171 | bring to light | kòkúmúȯlà | kulurngyà | kigėlyà |
| 882 | bring up (a child) | kơkơlyà | moknelya | kùleta |
| 660 | brook, stream | kàmóóngó | mwáápo | mỏóngo |
| 942 | broom | kyȯòyó | kyȯỏyȯ | upyágiò |
| 113 | broth | musciòi | musùali | mòhời |
| 381 | brother-in-law, sister-in-law | múämwí (màlè), sháambá (femalè) | mülamùwi | múnyànjkùmbánê |
| 341 | brother (oider) | mùgúli | münủnà | mikùlò |
| 673 | brother, relative, fellow-tnbesman | mùntúwa | mưntowa | aheù, toviti, alúna |
| 874 | bruise badly, take the skin off | kòkwààmóv̇là | kòņwéètulà | kipónȯlà |
| 71 | buffalo | mbòogô | mbỏgó | mbógó |
| 807 | build | kùjeènga | kơzèengà | kùzèengà |
| 674 | bull | nzágàámbá | nzágȧámbà | nzàgààmbà |
| 80 | bunch (of hair) | - | pyúpì | nsiingà |
| 890 | burden, load | müligó | muligo | müligo |
| 645 | bum (vt \& vi) | kùyáákilả | kòyákilà | kàkilà |
| 231 | burnt (become) | kùpia | kùpyá | kùpyà |
| 179 | bury | kùyifkà | kòyiikà | kùikà |
| 555 | bush | sàkâ | òùwi | ihàkà |
| 21 | buttermilk | mbóoto | màsúúngà ? | màkwasu |
| 514 | buttocks | tảkò/màtákỏ | tyàkỏ//mảtảkỏ | ùkünó/̧kùnó |
| 301 | buy | kùgùlà | kùgùlà | kùgùlà |
| 873 | calabash | kiindir kisảao | kifndí | shiindi, yiindr |
| 857 | calf of the leg | nsảkus | - | - |
| 877 | calf | ndààmá | ndàamá | Øȯクóómbe |
| 31 | call | kùyifta | kòyitta | kitaàngà |



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\begin{aligned}
& \text { English } \\
& \text { canoe (dıg-out) } \\
& \text { canoe } \\
& \text { carry a child on the back (in a } \\
& \text { blanket) } \\
& \text { cary/liff on to head (take up) a } \\
& \text { heavy load } \\
& \text { camy astride on the thip } \\
& \text { carry, lake } \\
& \text { carry, convey } \\
& \text { cat } \\
& \text { cattle } \\
& \text { cease, finish } \\
& \text { centipede } \\
& \text { change, tum round } \\
& \text { charcoal } \\
& \text { charm (esp. to ensure wite's } \\
& \text { fidelity) (n) } \\
& \text { chase (away) } \\
& \text { cheek } \\
& \text { cheerful (become) } \\
& \text { cheetah } \\
& \text { chest } \\
& \text { chest fof animais and birds) } \\
& \text { chief, headman } \\
& \text { chief } \\
& \text { child, infant } \\
& \text { child, offspring } \\
& \text { chin } \\
& \text { choose }
\end{aligned}
$$
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要

English
civet cat
clan
climb, ascen
 cloth cloud cobra (spitting) cohabit come come on suddenly, take in the construct put together cook cook in water or fat cooking pan, small cool (become); get well copper, brass copy a pattern corpse, carcass corpse (human) cough (vi)
count
country (our)




| English | Kinaushòolà |
| :---: | :---: |
| courtyard | kiyáánzà |
| cover (up) | kȯkúnikilà |
| cow | noómbè |
| coward | mwóoà |
| crab | ngègèlégêégè |
| crawl, creep | - |
| cricket | jenzèlè |
| cripple | múléma |
| crocodile | - |
| cross (a river) | kùpùutà |
| crow ( n ) | Пkứngùlô |
| crown of the head | nsáànsı |
| crumple | - |
| crush by pounding, pulverize | kưtulàangà |
| crust | 7kokō |
| cry, wail | kùlìlà |
| cucumber, small | goógò |
| cudgel | kipfni |
| cullivate | kùìmá |
| cure, cool, heal | kùpólyà |
| cut | kutémà |
| cut, lop | - |
| cut to shape, sharpen to a point | kùnỏotà |
| dance (of men, to show courage) | kùinà |
| dance | kuinà ๆgomà |
| dark, black | nzilo |
| darkness | willò |
| dawn (vi) | kưyétà |



## 

 Englishdawn, daybreak
day after tomorrow
day
day-time
day (all)
day before yesterday
dead person
death
decorate
defecate
denial
deny
destroy, spoil
dew
die (cause to): put to death
de
die
dig up, dig out
dig
diminish, grow less
dip
dirt
districi, province. country
divide
divorce
do, complete, finish
do
dog


|  | English | Kìnàushỏolà | Kinilàảmbà Central | KîniHàànzù |
| :---: | :---: | :---: | :---: | :---: |
| 292a | donkey | ndògwi | ndơgói | ndògwé |
| 685 | door | múlààngò | \|wiigi | mülaàngo |
| 415 | dove (red-eyed) | $\rceil$ ¢ùvióo | nzià | Tjkùùndà |
| 188 | doze | kòtiindilià | kùtifindila | kòtindilà |
| 529 | draw water (from weli) | kờépeè̀là máauzi | kȯtépéèlà máazzi | kưtèpéélà màzi |
| 215 | dream (Vt, vi) | külyóotà | koloòtà | koloootá |
| 328 | dream ( ${ }^{\text {a }}$ ) | ndóoti | lùlóti | ndotit |
| 448 | drink | kùkȯpȧ | kükỏpà | kònwà |
| 196 | drizzle | màsisilâ | màsisilà | màsisilà |
| 780 | drop, throw down | ku̇kàlá | kùkónóóntà | koxala |
| 284 | drum | 7gömà | ngobmà | Пgờmà |
| 598 | dry (vt) set out to dry | kơyánikila | kùúmyà | kanîkà |
| 346 | dry | núúmù | númù | tờmu |
| 954 | dry up, ebb | kùpwéélȧ | kùpùá | kôhilà |
| 345 | dry up, become dry | kóyúómà | koùmà | kưoù ${ }^{\text {a }}$ |
| 289 | duck | mbaâtàmbàatà | mbaàtà | mbatat |
| 243 | dust, cloud of dust | İ̀nkùòndit | lònküònat | tünkoundi |
| 628 | dwell | ku̇kikàlà | kòkyàlà, kòdiila | kikihi |
| 492 | eagerness, zeal | - | òyàgà | pupà ? |
| 491 | eagle, bird of prey | nàảndá | nààndà | ndi |
| 563 | ear | kototi | kitưi | kutwit |
| 70 | earth, land | nisi | nsi | pihi |
| 44 | eathenware vessel for serving up food | nơóggò | yơorngo | nyùùngó |
| 156 | eat | kȯlyã | kólyà | kùlyà |
| 900 | effort, exertion | kokamàtika | kơkàmátikà | nguiù |
| 273 | egg | gi/magi | gyt | ijiè/màjilè |
| 443 | eight | mônáánà | mùnááná | mùnànà |
| 705a | elbow | kinkókòòlà | kintigino | kìjkökóólà |




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| No | English |
| :--- | :--- |
| 858 | ferment, furn sour |
| 762 | few (a ), not much |
| 757 | fierce, sharp |
| 421 | fig-tree |
| 422 | fig-mulberry tree |
| 216 | fight |
| 804 | fil |
| 176 | fill a hole, stop up |
| 583 | fitier, strain |
| 50 | filh |
| 516 | final, decisive |
| 760 | fine, excellent |
| 447 | finger |
| 323 | fingernail |
| 474 | fire |
| 280 | fireplace, hearth, kitchen |
| $970 a$ | firewood (collect, cut) (vi) |
| 413 | firewood |
| 191 | fish up, pull out |
| 126 | fish (old Swahili nswi) |
| 190 | fish (vt), trap fish |
| 400 | fist |
| 525 | five |
| 493 | flap wings witlly, flutter |
| 832 | flatulence |
| 384 | flavoured fbe properly ) |
| 907 | flower |
| 278 | fly fiouse) |
| 70 |  |


| No | English | KìnàUshỏdlà |
| :---: | :---: | :---: |
| 1028 | fly (vi) | kôpupulà |
| 1032 | foam * | póómbótù |
| 502 | foam | pȯómbòlu̇ |
| 143 | follow (in order) | kollooondėèlà |
| 142 | follow | küloondèèla |
| 823 | food supply for a joumey | mpaamma |
| 556 | forest | sháká |
| 584 | forge | kȯtyáánà |
| 889 | forget | kȯyiiwa |
| 458 | fork, bifurcation | pyáandarmápaandà |
| 442 | four | kánii |
| 295 | frog | ntoùndó |
| 574 | fruit | nkalĭ |
| 349 | fry | kökàlààngà |
| 936 | fully developed, be | kòkólà |
| 625 | full (become) | külijùlà |
| 316 | garden | nsóozà |
| 419 | gather (flowers, fruit) | kôkyàla |
| 91 | gathered (be), assembled (be) | kòkitüùndillà |
| 368 | gazelle (Grant's) | táálà |
| 454 | gazelle, small (impala) | mpàâ |
| 108 | genet (kind of speckled civet cat) | ntuüng ${ }^{\text {dod }}$ |
| 408 | get, obtain | kwiligià |
| 684 | ghost, sudden apparition | múntừungâ |
| 568 | giraffe | ntwiligà |
| 246 | give away (present) | kùpúnià |
| 449 | give | kùpéélà |
| 916 | give light to | kùmilikà |


| KìniLààmbà Central | KinìiHàànzü |
| :---: | :---: |
| kopùpùtà | kòpưtà, kôlùma |
| pyómbòlù | ipoomboólù |
| pyómbòlù | ipomboobilù |
| kờlyáátìlà | kơshátà |
| külyáàta | kùshâtiila |
| mpèkè | mpéké |
| ùùwî | ihákà |
| kodtyáànà | kừtyànã |
| kȯyifiwa | kirwa |
| pyàándà mapaàndà | ipàndà |
| kànî̀ | ìné |
| nitù̀̀ndó | nhuoùndù |
| nkati | ituiunda ? |
| kȯkàlààngà | kùkàlààngȧ |
| kölilìk̀à | kùxùlà |
| kòkjujulà | kizưlà |
| nsóózà | bùsitáàni ? |
| kükàlà | kuxalta |
| kưkilùòndililà | killinguìlà |
| láảià | mpàlà ? |
| mpaià | mpalà |
| nsàkáala | ntuüngo |
| kùligyà | kùlija |
| siimwi/másifimwi | minhúúngà |
| ntwiiga | ntwigà |
| köpúnià | kưpúrnyà |
| kùpéélà | küpunnyà, kùpà |
| kừmilikà | kùmưlikà |




| KinàUshóóla kùshámààmbà |  |
| :---: | :---: |
|  | kùyééndà |
| kùyiingilà |  |
|  | mbuili |
|  | ๆgölààti |
|  | nzua |
|  | múuzza |
|  | nsáánsi ? |
|  |  |
|  | koù úkù |
|  | màámà |
|  | kokuúmbasa |
|  | másáánsì |
|  | kòkwȧàmơoùlà |
|  | -kölō |
|  | ùkíà |
|  | küshià |
|  | kópàààà |
|  | kàmwáápỏ |
|  | mưgòùndà |
|  | kȯkülà |
| kòkülà, kùkùlyà |  |
| kòkúlà |  |
| ntìi |  |
| kùkȧnà |  |
|  | kơtóóngèela |
|  | kâángà |

English
glide, trickle镸 응 go
go in, come in, enter
goat
goat, (he-)
god
good
goshawk (East African) (Astur (jearao jo) uper6
(oдяреј) grain (of cereal)
grandiather grandmother grasp, hold in arn grass, reeds great, powerfut, big great, powerful, big
grief, sorrow grind (grain with a millstone) grind coarsely groove, furrow ground, cultivated grow up, get large, grow (of plants) grow (of plants) gruel, light poridge grunt, grumble



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$$





$$
\begin{aligned}
& \text { English } \\
& \text { hen, fowl, chicken } \\
& \text { here } \\
& \text { hiccup } \\
& \text { hide (vt) } \\
& \text { high, be (of meat) } \\
& \text { highway } \\
& \text { hill } \\
& \text { hip } \\
& \text { hippopotamus } \\
& \text { hil with a hammer } \\
& \text { hoe } \\
& \text { hoid, arrest } \\
& \text { hole, nest } \\
& \text { hollow out } \\
& \text { home } \\
& \text { honey } \\
& \text { honour } \\
& \text { hook (for pulling don } \\
& \text { in plucking fruit) } \\
& \text { hook (fish) } \\
& \text { hom, ivory, tusk } \\
& \text { horse . } \\
& \text { house } \\
& \text { how many? } \\
& \text { hump (of hunchback } \\
& \text { hump (of cow) } \\
& \text { hundred } \\
& \text { hunger }
\end{aligned}
$$

$$
\text { 융 } 9 \text { ¢ }
$$

## 采





| No | English | Kinàushoòta |
| :---: | :---: | :---: |
| 271 | journey | mùsiínzȯ |
| 606 | judge (v1) | kutààmulà |
| 810 | jump, leap | kùpưota |
| 477 | kidney | mpigó |
| 218 | kill | kwiyoulàgà |
| 677 | king | mutèmi |
| 787 | kile | nsàansi |
| 347 | knead | - |
| 348 | knee | tủù/màtưu |
| 427 | kneef | kotúúingàmá |
| 607 | $k$ nife | nsiime, njơólo |
| 402 | knife, thin curved, broad-tladed | . |
| 704 | knot | gyưưndo/ màguiùndô |
| 626 | know | kơmánà |
| 178 | lake | láámbò ? |
| 151 | lame (be) | kừnúnila |
| 511 | lamp | tàla |
| 99 | land (dy) | nsi nóvomủ |
| 761 | large, great, big * | kyólò |
| 94 | laugh | kùshėèkà |
| 792 | lay over on one side | - |
| 1000 | lazy | mưkàtà |
| 699 | leaf, blade of grass | sháànzi |
| 1025 | leaf (tree) | lükà |
| 911 | leak, ooze out | kùshúlôlà |
| 96 | lean, bend down, slope | kùtùnà |
| 536 | lean on, rely on |  |
| 796 | lean, become; grow thin | kònyèèkà |





[^122]


| No | English | KinàUshòolà |
| :---: | :---: | :---: |
| 155a | long (become) | kuilyi̇pà |
| 144 | long | iyffis |
| 131 | look after, care for | kòkéndégèela |
| 871 | look after grazing cattle, help a sick man on the road | kȯdiìmà |
| 354 | look at, examine | kólyàa |
| 354a | look around | kólàlàalà |
| 200 | look for, hang around (lo get something), pursue | kúshèènderyà |
| 973 | loose (be); faint, weak | kùnyėméntàlà |
| 181 | lost, get | külimitila |
| 1023 | louse | mpàni |
| 769 | love, want | külyóógwà |
| 934 | lung | pyúúpù/màpúópù |
| 713 | magic * | ologi |
| 714 | maize | mpúkilè |
| 521 | make offerings to the dead | kopólya |
| 226 | male | mȯgóosha |
| 10 | mamba, green (kind of poisonous snake) | kipièmbt |
| 793 | many | iingì |
| 1019 | many * | iingi |
| 897 | marriage | ùtóole |
| 895 | marry (of man) | kùtóólà |
| 896 | marry (give in marriage-of parents, priests) | kutóoliishà |
| 814 | master | - |
| 888 | match, harmonise (vi) | kóligànìila |
| 935 | mature | -kúlò, -kámú |

$$
\begin{aligned}
& \text { 范 }
\end{aligned}
$$

| English meat | KìnàUshòòlà nàmà |
| :---: | :---: |
| medicine，remedy | ùkótà |
| medicine（art of medicine man） | ògȧȧngà |
| medicine－man | múgáangà |
| meel | kùtȧágànà |
| mell | kùnyèkèntúkả |
| midwife | － |
| migrate，move away | kùsháama |
| milk（ $n$ ） | mȧsúúnsú，másúúngã |
| milk（curdied），curds | mastúnsú màgònū |
| milk，（fresh）（ l ） | màsúvinso |
| millet（oullrush） | òwèėlè |
| millipede | gơngòlî |
| mix（ingredients，＇season food＇） | kùyùùngà nani |
| mix，put together | kùshàlinkànyà |
| monkey（small lightish－coloured） | ntóúmbili |
| monkey（colobus－（with long | － |
| black silk hair，white on shoulders） |  |
| monkey（small，dark－coloured） | － |
| moon | mweéli |
| moonlight | － |
| mosquito | mbuj |
| mother | máay |
| moutd（pottery） | kùyúúmba |
| mountain | múlima |
| mourning | sùćkả |
| mouth | mulomó |
| movement | kògèènda |

只呙品





| No | English | Kinaushoola |
| :---: | :---: | :---: |
| 876 | order, direct | kùlàgitilyà |
| 961 | ostrich | nóóngú |
| 640 | our(s) pl. 1st person) | yiitû |
| 506 | out (go), go away | kùpúma |
| 324 | outside | kừnzi |
| 217 | overcome; win, vanquish | kùdưtà |
| 995 | owed by, be | kùdảai |
| 835 | oyster | - |
| 207 | pack (luggage) | kùyiikà palómwi |
| 208 | pack, press together | kùpàangà |
| 456 | pack, flock, group | dyalè/màdalè |
| 457 | pack, baie, bundle ( n ) | mùligò |
| 236 | paddie ( $\mathbf{n}$ ) | mütiijkȯ |
| 342 | palate | - |
| 9 | palm (date) | - |
| 719 | palm-wine | - |
| 257 | palm (of hand) | gảànzà, kigàànzà |
| 6 | paim (raphia) | - |
| 7 | palm (borassus) | múpààna |
| 8 | palm (oil) | - |
| 459 | palpitate, flutter, tremble | kükikimà |
| 47 | parent, she who begets | mületi |
| 720 | parrot | - |
| 232 | pass, surpass | kùkilà |
| 325 | path | nzila |
| 159 | pay | külitipà |
| 600 | pay attention, take care | kùlyààwà |
| 820 | peel, shell | kükáátà, kòyưlỡlá |


| KìniLàambà Central | Kinìhaànzü |
| :---: | :---: |
| külàgiilyà | kütàgiilyà |
| núu̇ngù | nyouoùngó |
| yiitû | từ |
| kopipina | kùpüma |
| kòozi | kùnzì |
| kùdúlà | kúshiindà ? |
| kùdyàigwả | kưdàȧyà |
| - | - |
| kòtuiunga | kừtuiungȧ pàlònwî |
| kùpimbiziilyà | kizzúlyà |
| dyâtè/màdálè |  |
| búúgkù/ mábüúnkù | müligỏ |
| mờtíigkò | - |
| - | llaango |
| mutténde | - |
| ntứlu | - |
| gyàànzà | lùgàànzà |
| kialale | mwaàté |
| múpààmà | - |
| - | - |
| kưpùnùntikà | kükàgàtà |
| mulelizàlêli | mutelilialeli |
| - | - |
| kökita | kükilà, kưhitả |
| nzilà | nzilà |
| kờipà | külipà |
| kullindiùla | kügòzėèlà |
| kừưư\|ừlà | kübàlyà |


Kìnilààmbà Central lơkiingì̀nkínggì lükiingì/nkitngí kùkishillyà kidùgá/midùgà kageèmbè mùkóón,kò ๆgúlùmà jkúúndà kùkitwîika mútéénnà 늘 Iwàandi kù òlòùngú küpótà kùpàànđilà kcutòòntià nkóló

 kùkàpilyà
küshoonsèla
lơkito
kèmf́fyà
lyaảmbó


| No | English |
| :--- | :--- |
| 12 | peg |
| 11 | pegs (tent) |
| 494 | penetrate |
| 721 | penis |
| 884 | penknife, lancet |
| 558 | person |
| 638 | pestle |
| 312 | pig |
| 414 | plgeon, kind of |
| 579 | pile up, pile loads on head |
| 479 | pinch, make narrow |
| 357 | pipe (tobacco) |
| 552 | pit, hote |
| 974 | place, put (vt) |
| 722 | place (n) |
| 892 | place of the dead |
| 225 | plait |
| 932 | plant, sow |
| 510 | platform |
| 834 | please, satisfy (vt) |
| 93 | pleased (be) |
| 13 | plot of ground |
| 647 | plunder (a town) |
| 1014 | plunge into, cause to sink |
| 114 | pake |
| 737 | pole, thin |
| 111 | polish, clean by rubbing |
| 177 | pool, pond |




| No | English |
| :--- | :--- |
| 923 | porcupine |
| 374 | poridge (stiff) |
| 42 | pot (metal) |
| 41 | pot, vessel |
| 39 | pot, mug |
| 40 | pot, cooking (earthen) |
| 749 | potato (sweet) |
| 646 | potters kinn |
| 369 | pound (grain in a mortar to get |
| 441 | off the husks) |
| 641 | pour away |
| 748 | pour |
| 636 | pregnancy |
| 599 | pregnant, be |
| 553 | press out (oil seed, sugar cane) |
| 986 | produce, put forth, display |
| 909 | prominent (be); put out |
| 518 | pronounce |
| 340 | protect by charm (medicine) |
| 947 | protect by charms (target) |
| 475 | puff-adder |
| 244 | pul |
| 173 | pull up, come to a hall |
| 172 | pull up, root up |
| 833 | pull, drag |
| 57 | pump |
| 548 | push |
| 992 | put, place, set |


| No | English | Kinàushoolâ | KiniLatamba Central | Kinithàanzù |
| :---: | :---: | :---: | :---: | :---: |
| 887 | put together for comparison | kưligànùilyà | köligànìilà | kȯlìingàsyà |
| 969 | put a pot on the fire | kùtélèkà | kötelètekà | koùtelėxà |
| 981 | put together, compose | kùtưing ${ }^{\text {aja }}$ | kòilingî̀la | keitừingà |
| 862 | python | nsátó | nsátò | nsato |
| 656 | quarrel (vi) | kùkilèèa | kòkitéeà | kiléà |
| 180 | quench, extinguish | kùdibyạ | kùdibyà | kừitimisà |
| 485 | quiet (be) | kutikà, kùtớlyà | kotutólyả | kùkilàgà |
| 76 | rain | mbừà | mbưa | mbula |
| 917 | rain (vi) | kùkúa mbùià | kùkúà mbülà | kùkùà mbülà |
| 1006 | rains, the lesser | mwáañoli | sooòngola | msisila |
| 197 | rainy season | kitiku | kitikù | kitiko |
| 580 | rumble | kùgùgùmá | kùgùgùmà | kùùngừùmà ? |
| 26 | rat, kind of | - | kàdòn | \keénzi |
| 488 | rat (field) | Tkȯsȯ | m(ü)kiinki | mpòxù |
| 24 | rat | fkȯsȯ | mpúkù | mpóxù |
| 25 | rat- (very large, long-tailed) | . | mükiinki | . |
| 883 | razor | lơweémbè | loweémbe | kiweembe |
| 949 | read | küstiómà | kûshómà | kùsơmà ? |
| 1007 | reap, harvest | kùyì̀mbòlà (maize), kùyògólà (millet), kùkùnà (hard peanutst). kùkyàlà (cotton) | küyȯgóla | kùògòlà (millèt), kònùimbà (pèànút) |
| 523 | receive | kùyáánünkùlà | kưpôkeètà | kùpókèèla, kôhólà |
| 537 | reed | matete | külifili/màkùhilt | matete |
| 632 | refuse, say no | küshita | kossità | kühitâ |
| 633 | reject, refuse, dislike | kùsthità | küsiilà | kùhitâ |
| 545 | remain, stay behind * | kùsháágà | kưsáảgà, kùsololòkà | kùsiijâ |
| 1035 | remain, stay | küsháàà | kùsaágà | ku̇siligà, kùsààgá |
| 840 | remember | kükijùkà | kükjijùkà | kùkùmbúkila |
| 499 | resemble - | kùkimpyà̀̀nà | kükímpyàànà | impyàãi |





English
resemble (very closely)
resemble:
rest heavily on, be buidensome
rest the cheek on the hand (in


## 



| No | English |
| :--- | :--- |
| 522 | sarifice |
| 723 | salt |
| 95 | sand |
| 630 | satiated (be); have enough to |
|  | eat or drink |
| 788 | satisfy |
| 251 | say to, tell to |
| 783 | scorpion |
| 453 | scrape |
| 855 | scrape, grate |
| 856 | scratch, grate |
| 668 | scythe, sickle |
| 84 | search for |
| 85 | search diligently |
| 738 | seat, stoot, chair |
| 770 | see |
| 67 | seed |
| 404 | seize |
| 611 | self |
| 302 | sell |
| 570 | send |
| 451 | separate, set apart |
| 450 | separate, leave each other |
| 534 | set a trap |
| 868 | set (of the sun) |
| 971 | settled (be); be in good order |
| 754 | seven |
| 1033 | sew |
| 589 | sew |


| No | English | Kinàushoolà | KiniL ${ }^{\text {ajambà Central }}$ | KiniHàanzù |
| :---: | :---: | :---: | :---: | :---: |
| 135 | sexual intercourse with (have) | kutoomba | kùgóolotyà | kilitómbá |
| 691 | shadow, shade | múlüle, tôlimilimi | milule | mùtùtè, kilimilit |
| 867 | shame, disgrace | nsóni | nsóni | minyàlà |
| 116 | shame | nsóni | nsóni | minyâlà |
| 724 | shame, modesty | nsóni | nsóni | minyâlà |
| 386 | sharp (be) | kwiyviúpikà | kȯyópikà | takk ? nyigi ? (àdis) |
| 920 | sharpen | kùnóòla | kùnòólà | kùnòlà |
| 915 | shave | kùmóa | kùmòà | kòzùta |
| 603 | she, he | oyo | ouyó | nweenso |
| 287 | sheep | Пkȯlô | 7xxòlơ | nkōlò |
| 1009 | shell, cowrie | nkuila | kúlùkúùmbà | nsì̀mbi |
| 822 | shell | - | - | nitingolo |
| 725 | shield | - | ๆgùlà | ngòlà |
| 712 | shin (bone) | mülưóndi/milúúndì | mòlóóndi | - |
| 968 | shiver, shudder * | kükikimá | kükikimà | kükágatà |
| 528 | shiver | kùkikimà | kùkikimà | kòkàgàtà |
| 434 | short | kúpì | kúpì | ఫ¢kùpi |
| 430 | shoulder, tip of | - | - | iyègà/màègà |
| 588 | shoulder | yegà/mảègà | yêgà/mảegà | lyêgà/màegá |
| 839 | shout | kùjogolyà | kùkitoùntà | kùkưtà |
| 946 | shrivelled (te); winkled | kùkisinả | kưkisinà | kihinààngà |
| 763 | sick | Iwífiel | Iwite | - -wààlà |
| 870 | sitt | kùyơờngya | küsėkeènsya | kôhégéensá |
| 615 | sing | kòyiímbá | kòyiimbà | kìmbà |
| 3 | singe | kùyácità | k̇̇yȧùlà | kujsóonsà |
| 980 | sink, be drowned | kututà | kưtoontà | kotoonta |
| 170 | Sink | kùyúmila ? | kùtuilà | kolimimia |
| 726 | sister (his)/ (her) brother | múgóli, mùnùnà, iloùùmbò | mu̇gưili, mùnủnà | Hòmbò |


| No | English | Kinàushoolla |
| :---: | :---: | :---: |
| 627 | sit | kükikảlėànsà |
| 753 | six | mưtảảndàtơ |
| 785 | size, measure | - |
| 123 | skin (of person) | ndili |
| 124 | skin/rind (of fruit) | gyáàndà |
| 303 | sky | lưundė |
| 865 | slander, accuse falsely, often secretly | kùshóỏngèèlà |
| 470 | slap | kükúà ๆ\|kúi |
| 970 | slast | kėtémà |
| 220 | slaughter | kushiinzà |
| 727 | slave, bond servant | musėsé |
| 728 | slave (female) | mossèsè |
| 729 | stave, (male) | musesee |
| 136 | sleep (vi) | kơgònà naoóló |
| 731 | sleep ( n ) | ndóóló |
| 730 | sleeping-place, accommodation | pà ưgònó |
| 967 | stip, be slippery | kưtyelėmüàkà |
| 1021 | small | niino |
| 332 | smalipox | ndwi |
| 241 | smell (sweet) (vi) | kènuùgkìla |
| 242 | smell ( bad, of fish) (n) | kùnùu̇gkà |
| 240 | smell (bad) (vi) | kònúünka |
| 629 | smoke ( n ) | tyoúki |
| 428 | smoke (give out) (vi) | kujưouka |
| 387 | snail, slug | ŋjköokú |
| 837 | snail | 9,kòokù |
| 145 | snake, serpent | nzókȧ |
| 158 | snare, trap ( n ) | mưtêgó |


| Kinilaàmbà Central | KìniHàànzù |
| :---: | :---: |
| ku̇kikȧlàànsà | ikii |
| mútảándàtù | mutààndatoo |
| ngèlé | - |
| mủkujúnza | ndili |
| kúlùkúúmbà | igandà ? |
| gờù | liuunde |
| kushoóngèelà, kùsoong ${ }^{\text {a }}$ | kusooonsėèlà |
| ku̇kuá kòopi | kükùả ikȯpi |
| kolià | kȯtėmá, kùdùmùta |
| kusifnza | kúsinzà |
| mủsėsė | mùnyà milimó |
| mútugwà | munyà milimô |
| mútùgwa | munyà milimo |
| kògònả nđóólò | kòlàȧlả tôlò |
| ndóoló | tôo |
| pà kùgȯnà | pà kùláálà |
| kơtyèlèlá | kutèlèzà ? |
| niinó | nínò |
| ndùi | ndùir |
| ku̇nuinktila | kotnyu̇)kìlà |
| künüujkà | kūnyưunka |
| kùnüünkà | kùnyưunnkả, kù oja |
| lyóúki | lyùùkì |
| kütüngka | kùtüunkà |
| nkȯókū | Пkȯóku |
| Øjkȯȯkú | Tkoòku |
| nzókȧ | nzokȧ |
| mútègó | mutégó |



$$
\begin{aligned}
& \text { KìníLàambà Central }
\end{aligned}
$$




| KìnìHàànzù màlöà, màbáà kisònkoètyà kizoulà kwàànzá kȯmànyikà <br> kipàkà ? kusàmbaita nditilyó <br> kùdùmà kùsướnsàmá kwèègémà <br> küminyà <br> ku̇xàmà <br> ${ }^{\text {juindin }}$ <br> kùgùndilà <br> kìmíkà <br> nzotà <br> kùgàzzéélà <br> kùnéjá <br> kùliimbà <br> kùtừgúlyà <br> kiià <br> ipééli/màpééli <br> kùkilá, kùpútà |  |
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Kìnilààmbà Central



 English
spot, speckle
 squeeze oneself up against a
wall (e.g. to allow another to wail (e.g. to allow another to
pass)
squeeze out squeeze, milk squirrel stack, pile up stand (vi) stare, glare start off, send away startie, catch unawares stante, jerk
steal
steel
stem (of maize, millet, etc.)
step over





$$
\begin{aligned}
& \text { Kinilààmbà Central }
\end{aligned}
$$

#  

范



| No | English | Kìnàushóolà |
| :---: | :---: | :---: |
| 22 | thigh (of animal) | kiìiga |
| 558 | thing | kìmto |
| 987 | think, imagine | kùshìigà |
| 651 | thirst | nóótả |
| 740 | thom | liigyà/miigyà |
| 689 | threaten | kwiyopókyà, kȯtừmbá |
| 532 | three | kàtatutu |
| 115 | thrust into | kòkinà |
| 420 | tick (cattle or dog) | nkujpá |
| 1034 | tie (fasten) (v) | kòtưúngá |
| 258 | tie up | kưtu̇ügà nà lúkúsa |
| 978 | tingle with excitement | kùzànzàmukà |
| 119 | tip. point | - |
| 741 | tobacco | tyüumbàtì |
| 146 | today | nànteéndê |
| 742 | toe | Wảálà (nàlùkúlò) |
| 445 | tomato | ntỏlè |
| 105 | tomeat (half-wild) | tyó |
| 743 | tomorrow | mưdáao |
| 186 | tongue | lòlimi/nimi |
| 120 | tooth (canine), tooth filed to a point | . |
| 267 | tooth | liinò/miinó |
| 306 | top. peak | mpélo |
| 293 | tortoise | kíshishườù |
| 277 | town | müji ? |
| 378 | tramp of feet | mükiindò |
| 270 | travel | kòtứnji' musiinzo |
| 540 | tree | kyơtà/mảkờta |


| Kinil àámbà Central kìiga | KỉniHàánzu kinàmà |
| :---: | :---: |
| kì̀mtò | intò |
| kȯshiìgȧ | kùsigà |
| nóótà | nyơotâ |
| liigià/miigià | nija/rmiijá |
| kơtưùmbà | kòntistà ? |
| kàtatà | itàato |
| kơsòmà | kwààsà |
| nkúpà | nkùpà |
| kòtứinga | kôtưungá |
| kưtưungà nà lüligi | kùtúuingà |
| kòzwàmà | külôwà |
| nsơờngé | nsòòngė |
| tyuiumbàtí | itùmbâti̇ |
| nànteendé | telo |
| Iwááả Iwà mủgừò | Inààlànzàlȧ |
| ntole | nyáảnyà ? |
| nitili | - |
| múda ${ }^{\text {a }}$ | mưdaú |
| lùlimi | \|ôlimìndìmì |
| - | - |
| linotminó | bino/miino |
| nsóónge | miguilyà |
| ๆkölükàkè | götôlăgito |
| müj ? | - |
| múkiindó | kihuindo |
| kȯyééndà musifinzó | kùhègá |
| kyótâ | mưtìmitit |




KìnàUshòòlà kùkikìmà ku̇shü|̇̈là mùkónó ku̇gèmà kùpì̀̀ेlà
kùpìikà miintúti kùshòkỏtá kùpótyà kinena kùkúnùkülà yifsi wifmika ké kùnià, kùtùòndà màtùúndi kotumia mùlòkè mùsipà ? kjiiii? munaànso :

| No | English |
| :--- | :--- |
| 538 | tremble, shake (vi) |
| 566 | trickle away |
| 401 | trunk (of elephant) |
| 604 | try |
| 605 | tsetse-fly |
| 938 | turn upside down, turn over |
| 174 | turn round |
| 711 | tusk, elephant's (middle size) |
| 452 | twin |
| 185 | twist roll, spin with fingers |
| 483 | twist, esp strands |
| 752 | two |
| 18 | udder |
| 945 | uncover, reveal |
| 551 | unripe, half grown |
| 994 | unripe, uncooked |
| 311 | up, above |
| 614 | upright |
| 446 | urinate/defecate |
| 745 | urine |
| 569 | use |
| 307 | utmost, highest point |
| 904 | vapour, gas |
| 380 | vein |
| 276 | village |
| 692 | virgin (bride), gin |
| 327 | vision |
| 330 | voice, (thunder) |


$\square$ kügèendà, kùlèéndà gyèlèè kùtàkà ?

kükftyèelà kùkâalàà kùkáanza kùyöogá
 ishè
góigói ?
kùtiishà
 English
vomit
walk (take a)
walk
wall
want, need, wish
war
war-hog
wash oneself (after evacuating)
wash (hands)
wash (clothes)
wash, take a bath
water
wave, let off a trap, remove a
spell
we
weak
wean a child, give leave, send
away
wear, dress
weave, knit
weight, mythm
well
wet (get)
what?
which?
whistling
white man
white
who?


| No | English |
| :--- | :--- |
| 28 | wicked |
| 339 | wife |
| 187 | wind up (thread) |
| 746 | wind |
| 937 | winnow |
| 112 | wipe |
| 88 | wire (brass) |
| 194 | witchcraft |
| $279 a$ | withhold from |
| 279 | withhold from, abstain |
| 338 | woman |
| 747 | womb |
| 812 | word |
| 772 | work as a mason |
| 167 | work (n) |
| 81 | wrap up |
| 344 | wing (clothes) |
| 773 | yawn |
| 593 | year |
| 750 | yesterday |
| 15 | you (sing.) |
| 1018 | you (pl.) |
| 715 | young man |
| 637 | your(s) (pl. 2nd) person) |
| 693 | younh |
| 292 | zebra |



| Kinilaàmbà Central | KinniHàànzü |
| :---: | :---: |
| mùlàándù | ibi |
| méscúng | mùsùàngù |
| kùkưounza | kơkùùnzà |
| nzègà | nwèegà |
| kùpéetà | kùpėetà |
| koùpúta ? | kùsháàgúlà |
| wââyà ? | - |
| ùlogi | elogi |
| kȯimà | kôimà |
| kòkiyiimà | kiimà |
| musứńngù/ àsúũngù | mükimä/àkìmâ |
| timbi | nàa, kisuoùngè |
| lùkȧȧniŋgkȧảni | lòkàni/̧̧kàni |
| kòzeèngà | kòzèèngà |
| mùlìmo | mưlimó |
| kòyúnà | kükùnzà |
| kòminȧ | kòkảmùtà |
| koyauaùtà | kamáhà |
| mwákà | ๆ̣wààkà |
| igòoo | igòlo |
| òwe | wéèwe |
| iniè | nyeènyê |
| mülifishá | múhườmbà |
| yàànî | nyėėnyê |
| mussòmbátì (m), munàànsò (f) | mùhờùmbà , mùnáánsó |

范
Appender 1. Zone F word-list: 132

| No | English | GíRwảnà |
| :---: | :---: | :---: |
| 133 | abdomen, stomach, belly | ndà |
| 495 | abscess, boil | iróȯndà |
| 786a | abundant/abound | nyting |
| 786 | abundant | nyì̀ngi |
| 571 | abuse, insult | ùRȯkànà |
| 252 | abuse, reproach | gixúa |
| 809 | accustomed (get) | òzóéà ? |
| 274 | act (vi) | úRenda |
| 229 | add up | obngeyá |
| 927 | adjacent (be); border (vi) | hòmbèyà |
| 662 | adze, carpenter's | seèsó |
| 254 | affair | hànyo |
| 1002 | afraid (be) | ȯȯyớà |
| 168 | agriculture | màlimà |
| 926 | all | nyóone |
| 248 | atter, change | fiìndùa |
| 595 | animal | mùnyámà ? |
| 617 | answer a call | iRikà |
| 782 | answer, reply | sükià |
| 664 | ant (reddish-brown biting) | nyeli |
| 122 | ant-nim | gǐyơo |
| 663 | ant (small) | - |
| 586 | anvil | $\cdot$ |
| 989 | apply by stretching. spread over | Rantàyà |
| 976 | appoint, set up | ìmichá |
| 55 | arm, hand | mùxòno |









| No | Enghish | GiRwànà |
| :---: | :---: | :---: |
| 77 | break, snap | ùnà |
| 1036 | break wind | ờùrà |
| 17 | breast (of a woman) | mbée |
| 489 | breath, breathing | mwaảhư |
| 490 | breathe, rest | gòhèȧ |
| 138 | bridge | idalaja |
| 139 | briage (wooden) | idalalajà là màRì |
| 885 | bring, fetch | êRà |
| 171 | bring to light | òmànyika |
| 882 | bring up (a child) | òrià |
| 660 | brook, stream | gàyòȯngó |
| 942 | broom | ifyâyoriró |
| 113 | broth | milholi |
| 381 | brolner-in-law, sister-in-law | mùlàmò |
| 341 | brother (older) | múưnả ni mòkóó |
| 673 | brother, relative, fellow-tribesman | münyàndơyờ |
| 874 | bruise badly, take the skin off | ùsinùkà |
| 71 | buffato | mbóyó |
| 807 | build | ùjèèngà |
| 674 | bull | njāyâmbà |
| 80 | bunch (of hair) | màtiingà |
| 890 | burden, load | múlǐyó |
| 645 | bum (vi \& vi) | gwààkả |
| 231 | burnt (become) | üròngùrirá |
| 179 | bury | ûßiikà |
| 555 | bush | iyààkà |
| 21 | butlernilk | màày |



$$
\begin{array}{ll}
\begin{array}{l}
\text { English } \\
\text { buttocks } \\
\text { buy } \\
\text { calabash } \\
\text { calf of the leg } \\
\text { calf } \\
\text { call }
\end{array} & \begin{array}{l}
\text { GiRwànà } \\
\text { iRààxó } \\
\text { canoe (dug-out) } \\
\text { canoe } \\
\text { carry a child on the back (in a } \\
\text { blanket) } \\
\text { carryfà } \\
\text { heavy load to head (take up) a } \\
\text { carry astride on the hip } \\
\text { carry, take } \\
\text { carry, convey } \\
\text { cat } \\
\text { catte } \\
\text { cease, finish } \\
\text { centipede } \\
\text { change, tum roun } \\
\text { charcoal }
\end{array} \\
\text { mánoómbé }
\end{array}
$$

Sto

| eluọoup | eflupup | ereyos | wened e ¢doo | ¢82 |
| :---: | :---: | :---: | :---: | :---: |
| － | － | equeus | ssejq＇joddor | ¢92 |
| Rexonk | EYロ¢0 | Ex＠̧） |  | 588 |
| － | обиц¢凤и | оุбие̧！ 6 | Heus＇ued 6uy\％00 | हt |
|  | pxpyo | eyperey | vej so sojem ul $\times 000$ | 259 |
| phop | ehnop expyp | efnus | － 000 | $1 \angle\rangle$ |
| eฺpuą̣ | ерuay！ | equopo | saulatiol ind＇ponsuos | 0¢乙 |
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| в人бб6ететем | efyifluequ | екпиббия |  | 509 |
| elo | Elẹ | e！ | awoo | 七29 |
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| елә弓ّй | елпй | еп¢̧ema |  | 418 |
| әрипи！ | Ppunna！ | วpuñu： | pnop | ¢0¢ |
| ees！ | epseu／ees！ | eeseus | levereus saurop | OOE |
|  | epap | equiky | эидор | SEZ |
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|  | obluobu／oblioois | Muny！ | dums＇pop | OSS |
| － | eņuẹu | ę̧uẹu | puajse quyp | 1 1\％ |
| ＜OOMO | exypur | obliepmus | uep | scz |
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| пер！ 6 | рэр！ุ | Пэp！̣ | 山！р | 988 |
| виеемми | pupemus | еиеетми | Guuds $\mu$ рииヤ | $\angle 65$ |
| еиереми＇equilinu |  | еиермми | щеци＇pup | $6 \angle 9$ |
| ！шәу¢̣и | ！шว̧ypu | ！uว̧̧＠u | јәи | －18\％ |
| ！mayou | ęedurękupu | poxpu | иewpeay ！a！u | $18 \%$ |
| ｜KuȩtikunwêRu］ | ！4v！ | pupmylo | 4ร！｜6u3 | ON |

镸

 English
cork, stopper
compse, carcass
corpse (human)
cough (vi)
count
country (our)
courtyard
cover (up)
cow
coward
crab
crawl, creep
cricket
cripple
crocodile
cross (a river)
crow (n)
crown of the head
crumple
crush by pounding, pulverize
crust
cry, wail
cucumber, small
cudgel
cullivate
cure, cool, heal
cut
cut, lop


$$
\begin{aligned}
& \begin{array}{l}
\text { YínyàMünyỉ̉ànyi } \\
\text { Uséèsã } \\
\text { imáa }
\end{array}
\end{aligned}
$$

$$
\begin{aligned}
& \begin{array}{l}
\text { 号 } \\
0 \\
3 \\
\frac{3}{3} \\
\frac{3}{E} \\
\hline
\end{array} \\
& \text { 空 }
\end{aligned}
$$

$$
\begin{aligned}
& \text { English } \\
& \text { cut to shape, sharpen to a point } \\
& \text { dance (of men, to show } \\
& \text { courage) } \\
& \text { dance } \\
& \text { dark, black } \\
& \text { darkness } \\
& \text { dawn (vi) } \\
& \text { dawn, daybreak } \\
& \text { day after tomorrow } \\
& \text { day } \\
& \text { day-time } \\
& \text { day (all) } \\
& \text { day before yesterday } \\
& \text { dead person } \\
& \text { death } \\
& \text { decorate } \\
& \text { defecate } \\
& \text { denial } \\
& \text { deny } \\
& \text { destroy, spoil } \\
& \text { dew } \\
& \text { die (cause to), put to death } \\
& \text { die } \\
& \text { die } \\
& \text { dig up, dig oul } \\
& \text { dig } \\
& \text { diminish, grow less } \\
& \text { dip } \\
& \text { dirt }
\end{aligned}
$$

范






| GiRwànà <br> chờngú |  |
| :---: | :---: |
| ùlà |  |
|  | pȧȧmpàhò |
| ilyè／malyè，iү⿳亠二口欠／mảyí |  |
| mủnăánà |  |
| ixȯxóà |  |
| njou，njoy |  |
| ixàá |  |
| kumbáRià |  |
| hȯondyà |  |
| fora |  |
| ¢ima |  |
| mábi |  |
| hèyà |  |
| oulyiryà |  |
| hiihò／mihihó |  |
| ntơká，ligúưntó à mi ihò ņkùùmbò |  |
| ráả nà ndà |  |
| òsyò |  |
| ofidélé Bija |  |
| wàkilâ |  |
| －gwà |  |
| －kééfewà，keèfà |  |
| hendeeelya |  |
| kùlèngì |  |
| rènyiè ？ |  |
|  | rèniè |


| No | English |
| :--- | :--- |
| 44 | earthenware vessel for serving |
|  | up food |
| 156 | eat |
| 900 | effort，exertion |
| 273 | egg |
| 443 | eight |
| $705 a$ | eibow |
| 329 | elephant |
| 336 | embers |
| 842 | embrace |
| 394 | end（come to an） |
| 952 | escape，recover |
| 899 | examine，measure，test |
| 45 | excrement，dung |
| 958 | exorcise，drive out a devil |
| 784 | explain |
| 620 | eye |
| 828 | eyebrow |
| 838 | eyelash |
| 587 | face downwards |
| 686 | face |
| 940 | fade，disappear |
| 891 | faint，lose consciousness |
| 298 | fall |
| 549 | fall short |
| 462 | fan，wave |
| 764 | far |
| 921 | fat（be）（of animals） |
| 922 | fat（of animals） |


| No | English | GíRwànà |
| :---: | :---: | :---: |
| 531a | father | RaáRà |
| 382 | father-in-law, mother-in-law | muxwè |
| 531 | father (my) | RaâRà |
| 687 | fear | woópa |
| 652 | feathers, fur | njōōyá |
| 848 | fence, enciosure | ikiRà |
| 858 | ferment, furn sour | ưsasà, ưlulà |
| 762 | few (a), not much | kėéć |
| 757 | fierce, shamp | xả̀ì |
| 421 | fig-tree | - |
| 422 | fig-mulberry tree | - |
| 216 | fight | Yǐưßà |
| 804 | fill | gijuyà |
| 176 | fill a hole, stop up | gijouyà |
| 583 | filter, strain | òfènéntà |
| 50 | filth | mààntü |
| 516 | final, decisive | òdàhà |
| 760 | fine, excellent | ijà |
| 447 | finger | mwáchà |
| 323 | fingernail | ökuku̇ |
| 474 | fire | móòró |
| 280 | fireplace, hearth, kitchen | ùrikȯ |
| 970a | firewood (collect, cut) (vt) | ùRenyả |
| 413 | firewood | Økuri |
| 181 | fish up, pull out | obeyà |
| 126 | fish (otd Swahill $n$ swi) | samáki ? |
| 190 | fish (vi), trap fish | kwàRà |
| 400 | fist | $\eta$ kuiundi |


| GiÄhi | YinyàMu̇nyìjànyi |
| :---: | :---: |
| RàảRà | RȧéRà |
| muxwe | mu̇kwe |
| RaáRà | RäáRà |
| wóȯßà | woóßa |
| mảjỏòyȧ | mȧßori |
| mosáe | ikiRa |
| osasà | usasà |
| xii | cheeßpo |
| iryi | xàlì |
| - | - |
| - | mékúyò |
| ayixua | gixėßa |
| gijúyà | gijóya |
| ùxiRȧ | ùgivyà |
| ùxàmà | Ùkảmà, òkėnénà |
| mpààrà | ipàarà/mpaaarà |
| ihủniilyó | àfikèa ? |
| nijijà | nijijà, quoùmbà |
| mwàáshảà | chà |
| űhưưhù | ùkưúkủ |
| móaró | móȯRȯ |
| ojixo, màfiwa | riko |
| òRėnyȧ | ùtényà nkwì |
| Пkwí | ךkwi |
| osómbóȧ | akùóra |
| sóómba | soómbá |
| - | ùkùóra |
| nxoóndè | Tkuuindi |


| No | English | GiRwànà |
| :---: | :---: | :---: |
| 525 | five | iRáánó |
| 493 | flap wings wildy, fluter | ikủnưúntà |
| 832 | flatulence | ndả ijwe |
| 384 | flavoured (be properly) | ikwàRyè |
| 907 | flower | iù ? |
| 278 | fly (house) | пgih |
| 1028 | fly (vi) | òrư̇nà |
| 1032 | foam ${ }^{\text {- }}$ | iffómbóu |
| 502 | foam | ifómbóu |
| 143 | follow (in order) | -hoòngà |
| 142 | follow | -höòngá |
| 823 | food supply for a joumey | mahàảngủ |
| 556 | forest | ihààkà |
| 584 | forge | òRyánà |
| 889 | forget | gitwa |
| 458 | fork, bifurcation | mpásà |
| 442 | four | uinè |
| 295 | frog | nitừndó |
| 574 | fruil | itưùndà ? |
| 349 | fry | ùxàángà |
| 936 | fully developed, be | òxòmáá |
| 625 | full (become) | ijúà |
| 316 | garden | busitááni ? |
| 419 | gather (flowers, fruit) | ùxàa |
| 91 | gathered (be), assembled (be) | gèèngérà |
| 368 | gazelle (Grant's) | sassóngá |
| 454 | gazelle, small (impala) | mpàa |


| GiȦhi | YinyaMùnyiņànyi |
| :---: | :---: |
| iRáanó | itâànò |
| òxuángà mbààyà | oriumà |
| òbėèxà | Ògiòkà |
| dxolèáa ? | nòpwéėrà |
| seémbé, iúà ? | - |
| ngiil | ngii |
| ơrưma | ơrùmá |
| ifưòmbừ | ifóómbótú |
| ifườmbừù | ifóómbólu̇ |
| -saàmbiyá | gihoónga |
| githóónga | gihoóngà |
| màliíwá à múhiùnjò | màtáȧngú |
| ihààká | ihakká |
| ờfyàánà | òtyàánà |
| ơviRà | gïß ${ }_{\text {aja }}$ |
| gitwààndwá | mùkòkò |
| gánè, iinè | line |
| ntưòndwi | ntườndò |
| - | - |
| òxáángà | ùkáángà |
| ờwèèndà ù nji ( m ), ùhyá ònưùmbá (female) | ùkùrâ |
| ògijúa | gìjúa |
| busisitảài ? | njêrá |
| ©xaà | ưkàa |
| ùgihóángirìà | gihàángùyà |
| - | mpaá |
| mpáa | mpaá |

$\stackrel{8}{8}$




bùnduưki ?
 mbu̇yì
iүànjà
gìifò
gìmóhó
mùtinni
òniginiyà okakù munyangaa àngưfà, wàng wà
óhưrà obabáli/mábabaali mòkóvè
 을 Engish grow up, get large, become
great grow (of plants) grown (be fuly)
gruel, light porridge grunt, grumble guide aright
guinea-fown gun hair hair (long straight- of animals and Europeans) hair (white, grey) hand (flat of) hand, right handle, haft hang in mid-air hard hardship, distress hare haste hate, detest head, chief person head



| No | English | GiRwànà |
| :---: | :---: | :---: |
| 391 | heap up, ready/set on fire | fèembérà |
| 623 | hear | Rảayà |
| 543 | heart | ¢ $\times$ óo |
| 944 | hearthstone for putting pots on | mafiywa |
| 893 | heavy, serious, dull | iriRo |
| 705 | heel (of foot) | gîRiginò |
| 681 | heifer | nđảmá à noombè |
| 418 | hem, make a border | biidà |
| 690 | hen, fowl, chicken | Økùku̇ |
| 766 | here | afa |
| 863 | niccup | - |
| 800 | hide (vt) | fiihà |
| 38 | high, be (of meat) | Ơyórà |
| 326 | highway | bàlàbálà? |
| 309 | hill | òyȯȯngò, gìyùù |
| 925 | hip | Пkủnù |
| 317 | hippopotamus | ntómóóndò |
| 396 | hit with a hammer | úRùà |
| 706 | hoe | ikùujo |
| 990 | hold, arrest | ùxwáarà |
| 575 | hole, nest | ihóómbó |
| 836 | hollow out | òkùlà |
| 816 | home | òxiRù |
| 654 | honey | ờkì |
| 150 | honour | - |
| 797 | hook (for pulling down branches in plucking fruit) | ఇ wááàà |
| 189 | hook (fish) | ndóána |
| 707 | hom, ivory, lusk | oféembe, mpeembe |


| GiȦhi | YínyàMùnyinànyi |
| :---: | :---: |
| Rėndá móȯRò | U̇Rėndà, ưfermbéérà |
| Rèjèà | Regéa |
| ๆхóó | ๆkoó |
| ifiwa/máfiwa | ifiyoimafiyó |
| ndiró | irito, nditò |
| girininyyo | gitin)inyó |
| - | mugoyo |
| ùRùmà, ùhu̇njá isȧȧ | ùkònyȧ |
| ŋxéúhú | Økaùukù |
| hafái, hǔkó | àā |
| Øjkishis, пkkiçi | gìhékúmwà |
| òfihả | cubihà |
| òyúúndà | ùyórá |
| njià, bààbáả? | ibáarà |
| gàgiRàànto | gảRümbì |
| - | nyónngé yà ginamà |
| ntòmóondo | ntơmén ${ }^{\text {a }}$ dò |
| oxùá nyiuùndo | òtürá nà nyủủndỏ |
| ixừjo | ikujoo |
| ùxwaarRà | Ư̇aRa |
| ibóyó/màbóyó | ikȯombó |
| - | Ơkürȧ |
| òxitò | ùjiitò |
| róvixi | し̀òki |
| - | gògóqa |
| ๆwaċàdà | ngwàádà |
| ndoảnà | ndôảno |
| ofeembe | uфcembe |


| No | English | GiRwànà | GiAhi | YinyaMùnyinànyi |
| :---: | :---: | :---: | :---: | :---: |
| 288 | horse * | fàrasi ? | farasis ? | - |
| 708 | house | nyưumbà | nyưumbá | nyưumbà |
| 263 | now many? | iingà | inioga | iingà |
| 572 | hump (of hunchback) | gikuikì | mpoóku | gikừku |
| 573 | hump (of cow) | gikuiku | gixüxu | gikuüku |
| 756 | hundred | ǐànả | iYànà | iYânà |
| 320 | hunger | njàà | njàà | niàà |
| 33 | thunt | useempa | óseempá | Oheda |
| 34 | hunter (professional) | mưseèmpi | mơsėėmpi | mènėdi |
| 35 | hunting | òseèmpi | d̀séémpó | ùhèdò |
| 227 | husband | mu̇yósya | móyósyà | múyosa |
| 808 | nut | gâdimù | nxààngò | ikùùmbú, gịßààndà |
| 709 | hyena | mpiRi | mpüRi | mpiti |
| 1016 | 1 | nî̀ni | neènè | neènè |
| 1013 | idieness, sloth | ùxäró | ÙRòRó | wèènyé |
| 901 | ill (be): groan | dolvá | ơrwáá | òrówà |
| 902 | illiness, (crippling) | culvá | Orwif | ùrwè |
| 275 | imitate | ǐèyà | wìlyeyà | giyéėyà |
| 16 | in front of | nsoóngė | ùsòònge | nsobonge |
| 353 | in the middle of | mu̇xàRi | múxâRì | muxảki |
| 118 | incite | gòhòngėėryà | ùhȯȯngeèya | hóngeèryá |
| 206 | increase, make greater | ongêèyá | uòngeèyà | ongėèyà |
| 155 | increase | kiyàniyà | kijoa | gijùyà nààngu |
| 426 | inheritance | òrėkėvvà | - | òs sài, sàò |
| 542 | inside, in | xàRi | mùunt | muxxàRi |
| 353a | inside, middle | müxarit | mu̇xảRí | múxàRi |
| 132 | intestines | lià/mảlà | mààà | màlà |
| 389 | intoxicated (get) | ù Yàà | òyảa | óyàà |

YínyàMùnyìnànyi



GíRwànà
mágwè ninả ichóòmà màgwè ninả ichúùmá
icùùmà gangé nǐi girààmbó范 iháyà ôramba ùhànkíyà，ùnànkìyà mpìyó múRèmi ùseéntà ofingiiRya ilù む̀xùà mảlù Iofyü lùfyù wá mpiimbò iküùndỏ
ùmànyà
ilàámbó
sùmkíyà
gìmwì，Ráá
ní nì ךkakù
－kúú
òhèkà
色



| No | English |
| :--- | :--- |
| 792 | lay over on one side |
| 1000 | lazy |
| 699 | leaf, blade of grass |
| 1025 | leaf (tree) |
| 911 | leak, ooze out |
| 96 | lean, bend down, slope |
| 536 | lean on, rely on |
| 796 | lean, become; grow thin |
| 535 | leaning (be) |
| 613 | learn |
| 546 | leave, permission |
| 1011 | leave over |
| 547 | leave, go away |
| 544 | leave (off) |
| 975 | left over, (be); remain over |
| 310 | leg, foot |
| 774 | lend, borrow |
| 107 | leopard |
| 878 | lick (ut) |
| 134 | lie down |
| 250 | lie on one's back |
| 791 | lift up, pick up |
| 467 | light in weight |
| 304 | light, sky |
| 805 | lightning |
| 657 | lime, whitewash |
| 213 | line, row |
| 659 | line, fishing |


| No | English | GiRwaña |
| :---: | :---: | :---: |
| 103 | lion | nilimbà |
| 198 | lip | mwóỏmó |
| 956 | listen | Rajà |
| 972 | listless (be) | muilèyèkú (àdj) |
| 1024 | liver | iRima |
| 429 | livestock (keep) | ôRüyà |
| 819 | lobster | - |
| 794 | locust | nkuùmbi |
| 155a | long (becone) | oulifá, ùliifyà |
| 144 | long | nditiu |
| 131 | look after, care for | giheéngà |
| 871 | look after grazing cattle, help a sick man on the road | òdììmà |
| 354 | look at, examine | ihėéngá |
| 354a | look around | iheéngànga, òlâyả |
| 200 | look for, hang around (to get something), pursue | gúfeènja |
| 973 | loose (be): faint, weak | lėyèkà |
| 181 | lost, get | gưyàyà |
| 1023 | louse | ndà |
| 769 | love, want | ùyàànjà |
| 934 | lung | fơfùmatôuto |
| 713 | magic * | ôlôyi |
| 714 | maize | mòniindi ? |
| 521 | make offerings to the dead | òkùmbikà |
| 226 | male | mùyỏósyá |
| 10 | mamba, green (kind of poisonous snake) | máambá ? |
| 793 | many | nyiingi |


| GiÄhi | yinyamùnyiņanyi |
| :---: | :---: |
| niimbá | 耳iimbà |
| mwòòmò | mwȯòmó |
| tàràyà | òtėy yéyà |
| - | grieyek |
| iRima | itima |
| òRúyá | ùtü Yà |
| - | - |
| Пkuoumbi | - |
| ùlifà | ưlịà |
| liifú, ndiifu | ndifü |
| ưlàayà | ollèa |
| Ơditimà | ùdiùmà |
| òlááyà | gihééngà |
| wiheèngà | giheénga, wihéénga |
| oltúvía | isègéjèrà |
| òlèyè | lèyèkà |
| yà yáa | yàyàà |
| ndá | ndà |
| yàaņá | ùyàanja |
| ifứfù/màtưfù | màqúqo |
| dolōyi | ưloyi |
| intáámà/ màntáámà | ihuindi ? |
| ùhưmbikả | ikùmbika |
| mưjobósyà | 7gososà |
| notálo | Пgưoukì |
| -lingf | -ingi |



| No | English | GíRwànà |
| :---: | :---: | :---: |
| 716 | moon | mweeli |
| 609 | moonlight | mwèèli wéliè |
| 59 | mosquito | mbó |
| 436 | mother | 10 |
| 65 | mould (pottery) |  |
| 717 | mountain | gìyoóngo |
| 163 | mourning | Пkuya |
| 1026 | mouth | mwoùmo |
| 272 | movement | - |
| 979 | mud, mire | Rofe/maRofe |
| 642 | mushroom | mpóRà/màmporà |
| 152 | mutilated (be) | cilèmié |
| 281 | name | lima |
| 539 | namely | intù |
| 403 | nape (of neck) | nyümà à ךkiingó |
| 256 | navel | nyèkú |
| 765 | near | filfi |
| 379 | neck | Пkiùngò |
| 843 | need, request | dosíyà oyàanjó, sėyèra |
| 962 | new | ifya |
| 718 | night | ÜRixù |
| 755 | nine | kėèndà |
| 484 | nose | mpula |
| 211 | number | maßalyó |
| 237 | oar | ixwéèlo |
| 939 | obstruct | xiRà |
| 48 | offspring | monényá/anenya |
| 66 | oil (from plants) | ikuRa |


| GiÀhi |  |
| :---: | :---: |
|  | mwéeli |
|  | mweèli |
|  | mbór |
| 10 |  |
|  | c̀úmbá |
| giRaantò |  |
| gitio |  |
|  | mwóomó |
| kihukà |  |
| iRōфè/máRöфé impóRà/màmpóRà |  |
|  |  |
|  | - |
| liina |  |
| dohanyè |  |
| ginyȧ!xòRi |  |
| ibusí |  |
| fitii |  |
| ךkiingó |  |
| ésǐyà |  |
| -fyá |  |
| ùRikú |  |
| xéendá |  |
| mpúa |  |
| - |  |
| - |  |
| ơ̧̧ià |  |
| múfaàto |  |
|  | màxurà |




English

은

| No | English | Girwana |
| :---: | :---: | :---: |
| 8 | palm (oil) | múchikichi? |
| 459 | palpitate, flutter, tremble | xảxàRà |
| 47 | parent, s/he who begets | mùfàfi |
| 720 | parrot | siliingwa |
| 232 | pass, surpass | ôkilà |
| 325 | path | njià |
| 159 | pay | ùlifa |
| 600 | pay attention, take care | gihéengà |
| 820 | peel, shell | ט̀bádòȧ |
| 12 | peg | maxombo |
| 11 | pegs (tent) | ๆkiì̀gi |
| 494 | penetrate | hėferà |
| 721 | penis | mbótó |
| 884 | penknife, lancet | gàkòjò |
| 558 | person | mưùnto |
| 638 | pestle | mùxȯjkó |
| 312 | pig | ๆgúmà |
| 414 | pigeon, kind of | ๆkùóndà |
| 579 | pile up, pile loads on head | gíRifkà |
| 479 | pinch, make narrow | hinả |
| 357 | pipe (tobacco) | ifüúndè |
| 552 | pit, hole | ixómbó |
| 974 | place, put (vt) | ט̀Rendèà |
| 722 | place ( n ) | กii |
| 892 | place of the dead | úlė̇ngus |
| 225 | plait | úsùkà, ûhüka |
| 932 | plant, sow | òfàndià |
| 510 | platform | gichánja |


| GiAhi | YinyàMűnyiłjànyi |
| :---: | :---: |
| - | - |
| ùxàxàrà | xàxàRà, gilinà |
| múfafi | mùфàфi |
| mùnyasuswi | - |
| ùxià | ôkirả |
| njià | nijà |
| ùlifa | d̀ī¢̧a |
| láávà | giheéngá |
| obàdùà | ùbádùà, ùsu̇u̇ßyà |
| manombù | - |
| uxììngì/qkì̀̀ ${ }^{\text {ail }}$ | mȧȧmbȯ |
| efeèya | Oheqeèr |
| oyóósyà ? , mukià ? | iroyà, ijoưngà |
| - | gàkùòjò |
| mưùntū | mùòntò |
| mòxóónxó | mùxùònxó |
| $\eta$ Øưhinwè ? | ๆgüúmá |
| ๆkúúndè | ๆkừndà |
| ùgiRwikà | góRiikà |
| ùhiná | unina |
| ifüunde | ifùundė |
| ihóómbù | ikóómbó |
| ḋRèndéá | opikià |
| faantut | kúókò |
| gwaatorongo | giyoù |
| suıùxá | ùsukà ? |
| gưfàndià | ùfàndià |
| - | - |




| English | GíRwànà |
| :---: | :---: |
| please, satisfy (V) | gikúRà ? |
| pleased (be) | Ưyàànjwa |
| plot of ground | giwânjà ? |
| plunder (a town) | ùhórà, ùhèeywa |
| plunge into, cause to sink | c̀joùbólityà |
| poke | sóseèya |
| pole, thin | ôkiRô |
| polish, clean by rubbing | òkwàràngà |
| poot, pond | gàràmbó |
| porcupine | núùngư |
| porridge (stif) | оуее |
| pot (metal) | ikơóó/màkófó |
| pot, vessel | niife |
| pot. mug | mukếbé |
| pot, cooking (earthen) | nyùngó |
| potato (sweet) | idơó/màdơo |
| potter's kiln | iRànúrú ? |
| pound (grain in a mortar to get off the husks) | òtớrà |
| pour away | hưnùà |
| pour | miminà ? |
| pregnancy | nda |
| pregnant, be | winà ndà/wiiro |
| prepare | ôRêndà |
| press out (oil seed, sugar cane) | ôxamà |
| produce, put forth, display | ưdừnya |
| prominent (be): put out | hườngírà |
| pronounce | onanya |
| protect by charm (medicine) | ưRendyà manokâ |




| No | English |
| :--- | :--- |
| 947 | protect by charms (target) |
| 475 | puff-adder |
| 244 | pull |
| 173 | pull up, come to a hait |
| 172 | pull up, root up |
| 833 | pull, drag |
| 57 | purnp |
| 548 | push |
| 992 | put, place, set |
| 887 | put together for comparison |
| 969 | put a pot on the fire |
| 981 | put together, compose |
| 862 | python |
| 656 | quarrel (vi) |
| 180 | quench, extinguish |
| 485 | quiet (be) |
| 76 | rain |
| 917 | rain (vi) |
| 1006 | rains, the lesser |
| 197 | rainy season |
| 580 | sumble |
| 26 | rat, kind of |
| 488 | rat (field) |
| 24 | rat |
| 25 | rat- (very large, long-tailed) |
| 883 | razor |
| 949 | read |
| 1007 | reap, harvest |


| No | English | GiRwànà | GiẢni | Yfryamunnyịănyi |
| :---: | :---: | :---: | :---: | :---: |
| 523 | receive | ơrà | ườkèà | ợókẻa |
| 537 | reed | màtėtè | . | - |
| 632 | refuse, say no | hiRà | hiirà | ờità |
| 633 | reject, refuse, distike | hiRa | hiirà | hitua |
| 545 | remain, stay behind * | sààyà | sâáya | ossilyà |
| 1035 | remain, stay | sááyà | saáyà | ossijyà |
| 840 | remember | kòmbòkwà | c̀̀kùmbúkwà | kòmbừkã |
| 499 | resemble * | gwixwėRe | ógininànà nà | gixwa |
| 879 | resemble (very closely) | gwixwèèrè nả fgò | giixwà | gixwá gi |
| 1031 | resemble * | gwixwerè | gilitwà | gixwa |
| 149 | rest heavily on, be burdensome | wiRótéwà | léméa | uRònyèèyo ? |
| 964 | rest the cheek on the hand (in brooding mood) | kwàRà ithàyà | ùsilimbá | ȮkåRà ihàyà |
| 957 | rest, take a holiday | Rươyâ | Rưưyà | òtúyà |
| 249 | retum, go back | sùkà | su̇xà | osóchà |
| 1004 | return | sùkà | súxà | sùkà |
| 500 | revive | ouoùúchà | $\bigcirc$ | visuchiliya |
| 318 | minoceros | mpèmbèė | mpèmbèe | mpèmbée |
| 988 | nib | Ơbălù | ùbảtù/mbàlù | úbàru |
| 473 | ripe | firiye | ifiye | ipiyte |
| 996 | ripen (vi) * | âßlyà | Biyá | uptilyà |
| 472 | ripen (vi) | àßiyà | Bíyá | ưpìiyà |
| 209 | river | yóongó | móorngó | yȯ̀ngo |
| 239 | roar, rumble | ùnumá | ùxỏomà | òxȯómà |
| 644 | roast | góochà | ט̇choómà ? | òyưmikà |
| 350 | roast (in/by fire) | goouchà | úchooma | goócha |
| 806 | rock | ๆóàngó | igwe | nóóngo |
| 291 | rooster (cock) | njòloloto | njōolóló | njoboiolo |
| 169 | root | mừyì | mwilif | mù̇̇̇yi |










| No | English | GiRwànà | GiAhi | YinyàMùnyinànyi |
| :---: | :---: | :---: | :---: | :---: |
| 946 | shriveiled (be); wrinkled | màkùnyà (n) | - | gìhínà |
| 763 | sick | -ilwe | oliwie | -nwé |
| 870 | sift | úkinitá | úsėkèsyà | osseyesa |
| 615 | sing | giimbà | iimbá | wilimbà |
| 3 | singe | ờòngwiilyà | oßàơrà | ưpáwiíyà |
| 980 | sink, be drowned | ôlopa | òRôRứá | ùxàRià |
| 170 | sink | djubừila | ónưmú $\mathrm{i}_{\text {ia }}$ | uxarià |
| 726 | sister (his)/ (her) brother | ilòombo | munà à giximà | mùnàjà |
| 627 | sit | ixâà | ixáa | gixaua |
| 753 | six | múRándàRò | mưRảndảRù | müRándàRu |
| 785 | size, measure | màniņànì̀yò | òx óvó, òlifu $^{\text {a }}$ | gîyàànjò |
| 123 | skin (of person) | ndiì | ndíi, ikààndà | mékùùnija |
| 124 | skin/ind (of fruit) | mäbàdà | ibada/mábada | màbàda |
| 303 | sky | ilüùndè | iùnde | irưừndè |
| 865 | slander, accuse falsely, often secretly | osėsèà | ôhȯngèėà | òhȯngèèryà |
| 470 | slap | axaù ixóofi | òxưá ixóofi | xùả màkóófi |
| 970 | slash | Rèmà | oremà múri | Ôtyà |
| 220 | slaughter | chitnjà | hihiRá | ôkigità |
| 727 | slave, bond servant | mùRùmwà? | müRúmwa ? | müràyáasi ? |
| 728 | slave (female) | müRùywà | müRúmwa | - |
| 729 | slave. (male) | müRüywà | müRúmwà | mưtà yáasi ? |
| 136 | sleep (vi) | ơráà | ráa Rơoo | ưràa toó |
| 731 | sleep ( n ) | òrèe | Rơo | 100 |
| 730 | steeping-place, accommodation | àráa, ưóó | glıảo | nyùmbá ùrà |
| 967 | slip, be slippery | òsereyá | syêryá | útyigùtyà |
| 1021 | small | nyò yó | nyoui | nyópyó |
| 332 | smallpox | nduii | ndùi | - |
| 241 | smell (sweel) (vi) | ònyünkilija | önyùnkià | ùnyünkıà |




English
smell ( bad, of fish) (n) smoke (n)


$$
\begin{aligned}
& \text { YinyàMúnyinànyi }
\end{aligned}
$$





| No | English | GiRwànà | GiȦni | Yinyàmưnyin ànyi |
| :---: | :---: | :---: | :---: | :---: |
| 594 | suck (the breast) | góȯnkà | óónká | göŏnkà |
| 480 | suck (vt) | gȯȯnkà | fiifă | ò ¢i¢¢à |
| 912 | suffer, bear patiently | yừmììà | ơyimììa, ùvimìà | ógimì̀ya |
| 802 | sugar cane | mügkenye | munkeenyil minkéenyi | mùnkėnyé |
| 333 | sun, fight | lyoupa | yỡóßa | lyoußa |
| 184 | surround | wènèndäảngà | fiimá | òqiimá |
| 438 | swallow | milla | àànkià | ómila |
| 777 | swear | gilaffáa | àâfá | ùrâqà |
| 905 | sweat | müRưRis | mùRưRù | müRüRú |
| 392 | sweep up. collect in a heap (ubbish) | èyanjá mpàarà | ùhóangià mpaàrà | ojoùà mpààrà |
| 943 | sweep | fyayuóa | fayùa | ùchàgùa |
| 517 | sweet, pleasant | toòmbee | töambe | loombé |
| 51 | swell | gïmbá | uimbá | óßiimbe |
| 608 | sword (short) | siimè | siimė | sime |
| 933 | sword | ifáángá | ưáángà | lu̇ù |
| 360 | tail | ifúúmbú | ofưombó | i¢ưùmbù |
| 875 | take leave of | òràyà | wàagà | guàgà |
| 778 | take in (from rain, etc.) | - | oỏvá | góoyá ? |
| 565 | take, carry | ôouorà | ơnóa | ôhơorra |
| 233 | take off (clothes), undress | hieyá màsáà | yówa | ơyơà màsảa |
| 530 | tangle | iRimànyikii ? | gifindiyò? | - |
| 898 | taste (v) | osoóyà | ooonjà | ơyônjá |
| 985 | teach, instruct | ùfüundisya ? | füundisyá ? | ifundisyà? |
| 621 | tears | ndǐyǐȯ | mihóóii | twai |
| 412 | ten | ikùmi | ixómi | ikùmi |
| 121 | termite | münhwa | muthenyi | mothwa |
| 739 | testicle | màRùmbò | màRùmbo | ànányààngà |


| No | English | GiRwànà |
| :---: | :---: | :---: |
| 1020 | that | iyó |
| 455 | thatched roof | iRèmbè |
| 767 | there | afó, ukó |
| 54 | they | -eeso |
| 444 | thick, fat | èyènif |
| 86 | thicket * | gàRüjkù |
| 854 | thicket | gàRügku |
| 619 | thief | mùlàkủ |
| 23 | thigh (of human) | gìnàmả |
| 22 | thigh (of animal) | ginamà |
| 559 | thing | iintü |
| 987 | think, imagine | - |
| 651 | thirst | nywèeRà |
| 740 | thom | iץưưyả |
| 689 | threaten | obyófyà |
| 532 | three | iRåRù |
| 115 | thrust into | òhómá |
| 420 | tick (cattle or dog) | gkòfà |
| 1034 | tie (fasten) (v1) | Rüngà |
| 258 | tie up | Rungà, ūchityả |
| 978 | tingle with excitement | sisimùkyà ? |
| 119 | tip, point | söonge |
| 741 | tobacco | Rünbaril |
| 146 | today | lèeo |
| 742 | toe | mwàáchà |
| 445 | tomato | nyaányà |
| 105 | tomcat (half-wild) | ißülyàảká |
| 743 | tomorrow | fádiú |


| GiȦhi | Yinyamunnyinànyi |
| :---: | :---: |
| -ló, -yó | isi |
| ifèmbè | màhàфà ? |
| hàhó, ưxò | -\$0, ùkò |
| ßèensó | Beeho |
| Vinie | ȧyèniè |
| gàhàkà, Rónkù | gàRuiŋkù, gàhäkà |
| gàhàkà, Rünkù | gaRüjku̇, gàhàkà |
| mwilivi | mwivvi, mühtimbi |
| gìnámà, inàmà | ginàmà |
| gìnàmà, inȧmà | ginàmá |
| gìntù | tintù |
| Yémá | òséya |
| nywera | nyoóRà |
| igúyà/mà (i)gúyà | igúyà |
| oógófyà | ùkààjgá |
| iRàRú | tảàtú |
| xiinyà, hòȯmà | ùhòmả |
| ఫ̧uòfà | ךkú¢à |
| gorúngá | ưhükià |
| gotRúngwà ùyóhè | útüngá |
| - | - |
| sȯomé | sôongè |
| İRúnbáRú | itùmbàti |
| liò | rèó |
| mwâanchà | chà gơ múgùù |
| nyăảnyà | nyèenyè |
| eêlè | niyó |
| pȧdiò | ¢ádio |

YinyâMùnyinànyi òrimi
总 号
 mòòRè
 ùsỏỏyà ndoropó
ùфéntùa裔㤟
号
0 g
采
希
E
 ginènà Bดหดunyo $\stackrel{\otimes}{\stackrel{(1}{\otimes}}$空 은



| No | English | GíRwànà |
| :---: | :---: | :---: |
| 166 | tongue | òlimi |
| 120 | tooth（canine），tooth filed to a point | liono |
| 267 | tooth | liino |
| 306 | top，peak | gùùntó |
| 293 | tortoise | ๆkưù，mbảlìyỏyó |
| 277 | town | muji ？ |
| 378 | tramp of feet | ùhùriyààngà |
| 270 | travel | mühėènjo |
| 540 | tree | múRi |
| 538 | tremble，shake（vi） | xȧxàåra |
| 566 | trickle away | ùhórà，ìgiikè |
| 401 | trunk（of elephant） | mủxôno wá njoú |
| 604 | try | sóoyá |
| 605 | tsetse－fly | － |
| 938 | turn upside down，tum over | fintùà，findùa |
| 174 | fum round | fintòààngà |
| 711 | tusk，elephant＇s（middle size）＊ | － |
| 452 | Iwin | màfâhà |
| 185 | fwist roll，spin with fingers | sȯxóRà |
| 483 | twist，esp strands | góyơhà |
| 752 | two | －－3ii |
| 18 | udder | mbeé yả nóómbé |
| 945 | uncover，reveal | kunukùa |
| 551 | unripe，half grown | inyéke，itíndi |
| 994 | unripe，uncooked | iRuRo |
| 311 | up，above | gùntó |
| 614 | upright | gwilmà |
| 446 | urinate／defecate | nyà，xójà |

English
urine
use
utmost, highest point
utmost, highest point
vapour, gas vein
village
virgin (bride), girt vision
 vomit walk (lake a) $\frac{\sqrt{1}}{3}$ wall war
 wash oneself (after evacuating)
 wash (hands) wash, take a bath wash, take a bath
water water wave, tet off a trap, remove a
spell spell weak wean a child give leave, send away wear, dress


| No | English | GíRwànà |
| :---: | :---: | :---: |
| 501 | weave, knit | ôumá |
| 1015 | weight, chythen | UriRo |
| 210 | well | $100{ }^{\text {dij }}$ |
| 56 | wel (get) | ùRôRúfa |
| 919 | what? | ntoúni |
| 469 | which? | yáqe |
| 192 | whisting | mùùlyi |
| 175 | white man |  |
| 610 | white | -cèlò |
| 918 | who? | nyàanyú |
| 28 | wicked | mbi |
| 339 | wife | mùxémả |
| 187 | wind up (thread) | küủnjá |
| 746 | wind | afèfó |
| 937 | winnow | fèféRà, wėėra |
| 112 | wipe | ofưRà |
| 88 | wire (brass) | - |
| 194 | witcheraft | òróyi |
| 279a | withhold from | giimá |
| 279 | withhold from, abstain | ginyümà |
| 338 | woman | moxéma |
| 747 | womb | liàifio |
| 812 | word | ihȧnyò |
| 772 | work as a mason | djėèngà |
| 167 | work (n) | mulitimó |
| 81 | wrap up | küünja |
| 344 | wring (clothes) | xàmà |
| 773 | yawn | wà mááhà |


| GiÀhi | YinyàMùnyiranayi |
| :---: | :---: |
| úưmá | ôRüma |
| wiliRò, viliró | ònó, ŋàȧŋ̇é |
| rùvij | tùùi |
| ùRoRứà | óloß |
| ntoúni | ntùúni |
| ì¢é | yáą¢ė |
| mùioli | mouryé |
| mòjưtingù | mojuüungù |
| -éelé | njèèrú |
| àânyù | àȧnyú |
| 00¢bi | morevi ? |
| mùxémà | móxémà |
| òxưúnjá | ùfèndiya |
| oféfo, kiquRia | mpèeфо |
| òwèèrà | ù¢ènéntà |
| fưurà | ưhüRà |
| màxómó | - |
| òròy | d̀roji |
| iimà | glimà |
| ùginyiima | giyiimà |
| mùxéma/axėmả | móxémà |
| nyưưmbà/ndà ùфȧàфi | - |
| ihànyȯ | ihảnyȯ, Økàảni |
| ojéėnga | djeenga |
| mwitimó | mwitmó |
| húûnjá | Ukưỡjà |
| òmiinyà | ùkàànguá, minyóosà ? |
| hwá mwàhú/miăhủ | ólá miảyù |



677

| No | English | GíRwànà |
| :---: | :---: | :---: |
| 593 | year | mwàaxa |
| 750 | yesterday | ìyoó |
| 15 | you (sing.) | ßèèßé |
| 1018 | you (pl.) | nyèènyè |
| 715 | young man | mơnyàgiyòsyá |
| 637 | your(s) (pl. 2nd) persori) | áanyu |
| 693 | youth | mwikúúmbȯ, müùnchà |
| 292 | zebra | noưo |
| Appendix l. Zome F-uwrd-list: F25, F33 amlli3t |  |  |
| No | English | iCiWơoùngò |
| 133 | abdomen, stomach, belly | endà |
| 495 | abscess, boil | ipưùmbá |
| 786a | abundant/abound | àmingi |
| 786 | abundant | àmingi |
| 571 | abuse, insult | kùtùkàna |
| 252 | abuse, reproach | kùkàlipilà |
| 809 | accustomed (get) | kùzólèla |
| 274 | act (vt) | kùlòỏngà |
| 229 | add up | kùkoùngèjà |
| 927 | adjacent (be); border (vi) | - |
| 662 | adze, carpenter's | imbijijo |
| 254 | aftair | ijiáámbò/àmààmbó |
| 1002 | afraid (be) | kökóógòpa |
| 168 | agriculture | ichilimó |
| 926 | all | yeèsi |

## 


English

$$
\begin{aligned}
& \text { English } \\
& \text { alter, change }
\end{aligned}
$$

울


 English
bad
bad (become), rotten (vi)
bait
banana (plant)
banana (fruit)
banana (for cooking)
baobab
bark (of tree)
barren (of living being)
barren (of land)
base of tree-trunk
bask (in the sun), warm oneself
basket of open wicker-work
basket (plaited)
bathe
be fitting, behove
be, become
beach, coast, shore
bead(s)
bean, kind of bean (from
Phaseolus vulganis)
bean, small (from bean plant)
bean (runner)
bear child
beard
beat
beautiful
bed
bedstead


| No | English | iCiWVùngo |
| :---: | :---: | :---: |
| 653 | bee | İひ̇chf |
| 775 | beer | indiimba |
| 497 | beff, sinl | kònóneelta |
| 101 | below, underneath | pảàsi |
| 186 | bend, twist (Vi) | kupiinda |
| 468 | bend (vt) | kòpiindà, kùgóóndà |
| 193 | bewitch | kòlòwá |
| 930 | bifurcation, cross-roads | pàzilá paànda |
| 222 | bile | ndula |
| 262 | bind up, splice | kùnyeepa |
| 658 | bird-lime | úúlėémbó |
| 811 | bird | inoóni |
| 46 | binth (give), io a chird | kütera |
| 125 | bite | kúùmá, kúwàwà |
| 221 | bitter | kjkàî |
| 223 | bladder | - |
| 482 | blind person | uchipófù |
| 668 | blood | viàanda |
| 496 | blow on, blow up | koputua |
| 238 | blow bellows | kùpulìjà |
| 463 | blow away | kùpèpèlòshà ? |
| 776 | boast, brag, praise oneself | kùkwidaà ? |
| 676 | boat | ingalawa ? |
| 670 | body | ర̀v̀mbili/imimbili |
| 581 | boil up | - |
| 30 | boil (vt) | kewwifa |
| 433 | bone | ifüpà/mífupà |
| 564 | bore a mole | kutúwoia |


| KiiRangi | KèèMbủwe |
| :---: | :---: |
| njukik | njokkė |
| ìrùsò | rusis |
| kúbóohyà | ovéerera |
| èsé | nséisè |
| kùwòdà | ókȯnà |
| - | ofólóryà |
| kúlowà | olȯvà |
| tünjèrà jérumánírà | mabasú |
| kisùùngo | kėsóóngú |
| - | olawòlà |
| üréembó | órėèmpò |
| ndèe | mirè |
| ku̇vyàatà | oyảala |
| kơlumà | olómà |
| su̇üngo | osóóngú |
| kisèlù | kèsúmèerèrò |
| mùhòkù | mótifètut |
| sàkȧmi | mwàari |
| kufwéerà | weifera |
| - | - |
| kơfwéérèkà | ofàlàryà |
| kwilyèrya | welunya |
| màshuà ? | mȯring̣à bóli ? |
| műviri | móvèrèmèvèrè |
| kơfòokèrà | òverá |
| kòchem(u) shà?, kơtôtyà | vèrishá |
| ikúfà | kứfa |
| kotobola | toòngà, obưtòta |



$\begin{array}{ll}\text { No English } \\ 1008 & \text { born (be) } \\ 910 & \text { borrow } \\ 872 & \text { botte } \\ 928 & \text { boundary } \\ 671 & \text { bow, bending } \\ 508 & \text { bow } \\ 953 & \text { bowstring } \\ 58 & \text { brain } \\ 509 & \text { branch } \\ 375 & \text { bread } \\ 831 & \text { break wind * } \\ 77 & \text { break, snap } \\ 1036 & \text { break wind } \\ 17 & \text { breast fof a woman) } \\ 489 & \text { breath, breathing } \\ 490 & \text { breathe, rest } \\ 138 & \text { bridge } \\ 139 & \text { bridge (wooden) } \\ 885 & \text { bring, fetch } \\ 171 & \text { bring to light } \\ 882 & \text { bring up (a child) } \\ 660 & \text { brook, stream } \\ 942 & \text { broom } \\ 113 & \text { broth } \\ 381 & \text { brother-in-law, sister-in-law } \\ 341 & \text { brolher (older) } \\ 673 & \text { brother, relative, } \\ 874 & \text { felow-tribesman } \\ \text { bruise badly, take the skin }\end{array}$

#  




| No | English |
| :--- | :--- |
| 71 | buffato |
| 807 | build |
| 674 | bull |
| 80 | bunch (of hain) |
| 890 | burden, load |
| 645 | bum (vt \& vi) |
| 231 | burnt (become) |
| 179 | bury |
| 555 | bush |
| 21 | buttermilk |
| 514 | bultocks |
| 301 | buy |
| 873 | calabash |
| 857 | calf of the leg |
| 877 | calf |
| 31 | call |
| 675 | canoe (dug-out) |
| 602 | canoe |
| 993 | carry a child on the back (in a |
| 567 | blanket) |
| 97 | carryAft on to heavy (take up) a |
| 560 | carry astride on the hip |
| 578 | carry, take |
| 104 | cat |
| 286 | cattle |
| 486 | cease, finish |
| 526 | centipede |



$\%$



## 


English
English
come
come on suddenly, take in the
act
construct, put together
cook
cook in water or fat coot (become); get well copper, brass copy a pattern cork, stopper
corpse, carcass corpse (human)
cough (vi) count
country (our)
courtyard
cover (up)
cow
coward
crab
crawl, creep
cricket
cripple
crocodile
cross (a river)
crow (n)
crown of the head
crumple


| No | English | iCiWờrngó |
| :---: | :---: | :---: |
| 370 | crush by pounding. pulverize | kòvùna |
| 393 | crust | àmàkòkó |
| 160 | cry, wail | kưifia |
| 966 | cucumber, small | - |
| 736 | cudgel | ikwi |
| 165 | cultivate | kòlìmá |
| 950 | cure, cool, heal | kügàảngila, kùpulitija |
| 355 | cu | kôputinala |
| 98 | cut, top | kùpùtòlȧ |
| 117 | cut to shape, sharpen to a point | kùsoóngòlà |
| 365 | dance (of men, to show courage) | kwiitutùnoulà |
| 53 | dance | kùchinà |
| 622 | dark, black | nyilo |
| 481 | darkness | d̀siko |
| 824 | dawn (vi) | kwàachà |
| 359 | dawn, daybreak | mizáánjà |
| 744 | day after tomorrow | isikwiínjé |
| 130 | day | tosikú |
| 682 | day-time | ònsánà ๆkừò |
| 869 | day (all) | omussànà wéesi |
| 751 | day before yesterday | isikwiinjé |
| 423 | dead person | òmfuxile |
| 424 | death | ichifwo |
| 931 | decorate | külėembà ? |
| 446a | defecate | kùkùnyà |
| 631 | denial | kükàànà |
| 821 | deny | kükàanà |


| Kiirangi | KėèMbùwe |
| :---: | :---: |
| kôtwáángà | ôtưalàtulà |
| ùkòkó | lökóókó |
| kortra | oreréa |
| - | tàambó/màtààmbó |
| mpùlȯ | mòtuwámbėryó |
| kòrimà | órèñà |
| kưhȯryà | yâandi |
| kùkèra | ôtêmà |
| koùkėrèèngȧ | ôfénjérà |
| kèsoóngoda | ofala |
| kovinà | ôlingátėrèryàtingȧtèrèryả |
| kovinà | ovinà |
| njirou | mweiràmà |
| kiijà | dưu |
| kwèera | kòchééyẻ |
| kwilirire | kȯtyėkánòkà |
| lôvíriryà | okééyé |
| siku | nsikó |
| mùusí | mónsékati |
| chefrire | chòòbúchóòbú |
| érả sikiu | èrà nsikò |
| mùviimbà | móviimbà |
| †küyà | \#kuyà |
| kùrémbả | ojifėerèryà |
| kònià | onià |
| siita | osiita |
| kùsilita | ossifita |

## 业需









| No | English | 1CiWờng ${ }^{\text {a }}$ |
| :---: | :---: | :---: |
| 760 | fine, excellent | -nóonu |
| 447 | finger | kààjkònó |
| 323 | fingemail | intingwà |
| 474 | fire | Undilo/mindiló |
| 280 | fireplace, hearth, kitchen | ifiyà, ijikó |
| 970a | firewood (collect, cut) (vt) | kusėènyà |
| 413 | firewood | ingwi |
| 191 | fish up, pull out | kwiipola |
| 126 | fish (old Swahili $n s w i$ ) | ishwi |
| 190 | fish (vi). frap fish | kȯvua stiwi |
| 400 | fist | ìqgùmi |
| 525 | five | zitảàno |
| 493 | flap wings wildly, flutter | ku̇pùpúmùkå |
| 832 | flatulence | kėvimbiilà |
| 384 | flavoured (be properly) | kùnógèela |
| 907 | flower | i̇ưvà/àmàủa? |
| 278 | fly (house) | isângảàzi |
| 1028 | fly (vi) | kúlơkà |
| 1032 | foam * | ipóvủ (of soap), ifưuló (the rest) |
| 502 | foam | ipóvù (of soap), ifüulo (the rest) |
| 143 | follow (in order) | kutuatã ? |
| 142 | follow | ku̇fwȧȧtȧ |
| 823 | food supply for a journey | insưomá |
| 556 | forest | unsitu? |
| 584 | forge | külenganija |
| 889 | forget | kùkwifwa |


| KiiRàngi | KèeMbuwwe |
| :---: | :---: |
| yà boóna | kėejà |
| imàèmbȧ | mónwè |
| mpàă | \|ojàlà |
| moótò | móotos |
| riikó | riiko |
| kutemà $\rceil$ kwi | óviringa |
| 万kwi | ПKȯó |
| kùtỏolà | ólòwotia |
| samàki ? | nsiye |
| kôkwaátà samáaki | òtẻyà nsiyè |
| ๆgúmì | Пkóónde |
| isàànȯ | sáánó |
| kờàláfààntà | òfàlàlà |
| küvúhirwa | òfülùmèrėra |
| - | ókórérả |
| lúwà | òlóriwá |
| njưoc̀sì | ๆgià |
| kúhúlòkà | ofálàlà |
| ifúlò | fúlò |
| ifưko | fito |
| kutùbá | noongo |
| ku̇túbȧ | ótúúmba |
| masúvolà | ךkáándà |
| isâká | sàfisàafi |
| - | ochàanà |
| kùrimìryà | wėèvà |


|  | KeèMbùwe mábàsi |
| :---: | :---: |
|  | iinyê |
|  | choórá |
|  | － |
|  | OKȧlààng ${ }^{\text {aja }}$ |
|  | ôkutala |
|  | wejjula |
|  | daàngit |
|  | òtyá |
|  | wèviringà |
|  | mbwaala |
|  | njèerà |
|  | chéefá |
|  | otoólã |
|  | mȯrimó |
|  | ntódyà |
|  | njkóyi |
|  | ơfá |
|  | otónjèrà |
|  | wèkèrėrà |
|  | ơfétà |
|  | oingirá |
|  | mbori |
|  | ๆgulààtà |
|  | mótålảanjá，joovà |
|  | kèejá |
|  | lóȯvè |


iCiWòòngơ
izilà pààndà，ikóówà（for use
in millet），ndèmèèlo（for pot）
zini
ùchuólà






küfünyà，kùku̇òmpà
kùùmbà kùmúrikà kòđümà mbeiri ๆgừlàatà

English
fork，befurcation号 은 fully developed，be
fuil（become）
gather（llowers，fruit）
gathered（be），assembled（be）
gazelie（Grant＇s）
gazelle，small（impala）
（ee lomo paryods jo puy）ฉวuว6 get，obtain ghost，sudden apparition giraffe
kùwààshà

küvàala
imbúzi
jibébééló，chibèbéélu
òmu゙ほ்ùng nòònù





| No | English |
| :--- | :--- |
| 68 | grain (of cereal) |
| 696 | grandfather |
| 697 | grandmother |
| 432 | grasp, hold in ann |
| 698 | grass, reeds |
| 406 | grate |
| 409 | great, powerful, big |
| 164 | grief, sorrow |
| 371 | grind (grain with a millstone) |
| 372 | grind coarsely |
| 212 | groove, furrow |
| 801 | ground, cultivated |
| 405 | grow up, get large, become |
|  | great |
| 913 | grow (of plants) |
| 461 | grown (be fuily) |
| 373 | gruel, light poridge |
| 358 | grunt, grumble |
| 205 | guide anight |
| 351 | guinea-fowl |
| 701 | gun |
| 702 | hair |
| 977 | hair (long straight- of animals |
| 75 | and Europeans) |
| 703 | hair (vhite, grey) |
| 157 | hand (flat of) |
| 439 | hand, (left) |
| 476 | handle, haft |
|  |  |


| No | English | i̇CiWò̀̀ngò | Kiirảngi | KèèMbưwè |
| :---: | :---: | :---: | :---: | :---: |
| 779 | hang in mid-air | kwililààmbiilà | . | òniinèrá |
| 655 | hard | nkààngó | éfatà | mpafú |
| 377 | hardship, distress | - | àmàrémà | ótyéékérà |
| 294 | hare | - | chüüngùrà ? | chèèmi |
| 781 | haste | - | chààngú | chaàngoocháangó |
| 795 | nate, detest | kùsiilià | kùsùùla | ósóóchà |
| 700 | hay | àmȧkàvú | màsààmbí | lôkȯkó |
| 678 | head, chief person | ùjkaalit |  | mòkứtú, mùnénė |
| 356 | nead | ườtwè | mitue | mótwe |
| 352 | head-pad | ìngàtà | Okàtà | 7kátà |
| 561 | heap | iloùndo | tluerndò | kipuùmpà |
| 391 | heap up, ready/set on fire | kòpeèmbá | koukúrya mooto | ókȯryà moóto |
| 623 | near | kökwiirwà | kùtéerà | òtééra |
| 543 | heart | ùmòòyo | môtimà | Пkólò |
| 944 | hearthstone for putting pots on | ifiyà/måfiyà | ishà/màfiá | fiyà |
| 893 | neavy, serious, dull | ikôpààvù | êrutảà | nditoo |
| 705 | heel (of foot) | - | kichinò | nưutưnyá |
| 681 | heifer | - | ntiinó | ndàmá ékòmée |
| 418 | hem, make a border | küpiindà | kùùnàniá | ototà |
| 690 | hen, fowi, chicken | ngưkú | Пkuákò | Пkókò |
| 766 | here | èpà, kólà | àhà | áfà, òkò |
| 863 | hiccup | nkwiinwi | nkwiinkwi | chénkwéènkwé |
| 800 | nide (V) | kòpisa | kòvisà | visà |
| 38 | high, be (of meal) | köwòlà | kòviúundà | wȯơlà |
| 326 | highway | izilà | bàlàbàlà | njèrà |
| 309 | hill | kituoundà | 10 ciolo | mwilmbi |
| 925 | hip | inyöỏngá | niri ? | bȯóngó |
| 317 | hippopotamus | ivuwo | kibokò ? | mwiña ? |




# 品 

## 




| No 607 | English knife | iCiWóòngò <br> chisú (of women), umpyáàno (for men) | KiiRangi lifyo | KèèMbùwè toshó |
| :---: | :---: | :---: | :---: | :---: |
| 402 | knife, thin, curved, broad-bladed | isėengò | chȧay ${ }^{\text {a }}$, tủkókȯóyo | róshólá fóta |
| 704 | knot | ifüundô | choùngó | fưundò |
| 626 | know | kùmààna | kùlàángà | ómanyà |
| 178 | lake | ùlukùwà | trivà | láávà |
| 151 | lame (be) | kùsùngàilà | kùchénchèmà | òchėénchémèryà |
| 511 | lamp | Viauatà | kimúti | táà |
| 99 | land (dry) | isi ngảàvủ | táánù | nsf kảlùku |
| 761 | large, great, big * | ì y gùtò | kúlo | néèné |
| 94 | laugh | kùsèkà | kùsèkà | óséka |
| 792 | lay over on one side | - | kwisfikiryȧ | Ȯkúbékà |
| 1000 | lazy | - | sơkȯȯló | móvirà |
| 699 | leaf, blade of grass | isȯotè/mảsȯỏtė | isààmbí | sààmbí |
| 1025 | leaf (tree) | masooote | isààmbi | sàambí |
| 911 | leak, ooze out | koukùùvà | kùtóónyà | òsúlùlà |
| 96 | lean, bend down, slope | kơkwinàmà | kwinàma | wentama |
| 536 | lean on, rely on | kơtegémèà | kwiliáangyà | wivéréeryà |
| 796 | lean, become; grow thin | kòtópà | kwòondà | wòòndà |
| 535 | leaning (be) | kơkwegàmila | kwisikitıryà, winảantira | wisikirya |
| 613 | learn | kôkwifüủndiishȧ ? | kùtáȧngà | wimànyishà |
| 546 | leave, permission | èlühúsả? | - | òlàănìwà |
| 1011 | leave over | kùshàtijia | kòchiiryà | óchàárà |
| 547 | leave. go away | küoukà | ku̇rókà | oférénkả |
| 544 | leave (off) | kùlèkà | kòrèkà | órèkà |
| 975 | left over. (be); remain over | kübàkiija ? | kochérya | ochaálà |
| 310 | leg, foot | ìchinamà/tmináma | kuutù/mácolo | kưoliómúólù |
| 774 | lend, borrow | kùkwảȧzimyà | koliómbá | otáánchà |
| 107 | leopard | ingòol | nsúvì | sùvi |

#  






| No | English |
| :--- | :--- |
| 1023 | louse |
| 769 | love, want |
| 934 | lung |
| 713 | magic |
| 714 | maize |
| 521 | make offerings to the dead |
| 226 | male |
| 10 | mamba, green (kind of |
|  | poisonous snake) |
| 793 | marly |
| 1019 | many |
| 897 | marriage |
| 895 | marry (of man) |
| 896 | marry (give in mamiage-of |
| 814 | parents, priests) |
| 888 | master |
| 935 | match, harmonise (vil) |
| 586 | meat |
| 259 | medicine, remedy |
| 260 | medicine (art of medicine man |
| 261 | medicine-man |
| 90 | meet |
| 861 | melt |
| 845 | midwife |
| 859 | migrate, move away |
| 1030 | milik (n) |
| 20 | milit (curdied), curds |
| 19 | milk, (frest) (n) |





品



要要



$$
\begin{aligned}
& \text { kötétémà } \\
& \text { oùndézi }
\end{aligned}
$$

kàsùkủ ?


kolipà
kùlòlà，kùsúúngàmìlà kùpátùlà
 ùòndù／àwààndù ingùlùwe íggùúndà
 $\frac{4}{5}$
$\frac{1}{3}$
 paipitate，fluter，tremble
parent，s／he who begets parrot
pass，surpass
तो
pay attention，take care
 peg（tent） penetrate penis penknife，lancet person pestle
pig
pigeon，kind of
otindezi






| No | English | iCiWürongo | KiiRängi | Kèembùwe |
| :---: | :---: | :---: | :---: | :---: |
| 641 | pour | kùkwililìja | kùkùúrưrà | ôlòòngėrėrá |
| 748 | pregnancy | ùindà | èndà | mokȯvá |
| 636 | pregnant, be | kưkówả nì̀ ndà | kơvá nà ndà | ovà nà ndà |
| 599 | prepare | kükwandalita ? | kưtàyarishà ? | ojlishà |
| 553 | press out (oil seed, sugar cane) | kúkàmơờà, küsilè | - | siyá yà kámà |
| 986 | produce, put forth, display | kớtùnyà | kotoólà | osünyá |
| 909 | prominent (be): put out | kưfùmitijá | kofurmyà | osuimèrà |
| 518 | pronounce | kútêlà | kȯlüsá | ólósà |
| 340 | protect by charm (medicine) | kótèmà | kôkì̀ngà ? | ólàuriyà |
| 947 | proted by charms (target) | kúziindikà | kùzilindikà ? | olaúringà |
| 475 | puth-asder | Wilus | そâfưfu | njökà yà kėràtu |
| 244 | pull | kùkwèesà | kơnità | olùtà |
| 173 | pull up come to a halt | kwiimilila | kwiìmà | weéma |
| 172 | pull up, root up | kùkòmbưoula | kònoólà | okóoła |
| 833 | pull, drag | kùkwèesà | kôrưtà | óȯküryà |
| 57 | pump | ibóómbà | pooómbà | bóómbà |
| 548 | push | kösúkùmà ? | kùsúkùmà ? | ossindèkà |
| 992 | put, place, set | kówitika | kòviikà | véekà |
| 887 | put together for comparison | kolingànishà ? | kừànȧniryà | wééryà |
| 969 | put a pot on the fire | kùtèèngà | kütérèkà | osimèkèrà |
| 981 | put logether, compose | kútuoùngá | kôtúúnga | ósoóngérèryà |
| 862 | python | isàtu | sààtư | nsâto |
| 656 | quarrel (vi) | küküdwà | kwitóolià | weremèrà |
| 180 | quench, extinguish | kúziimyà | kòrimyà | rimyà |
| 485 | quiet (be) | kùkwiinàà | kưtúóta | toólà |
| 76 | rain | ivùlà | mbülȧ | mbúlà |
| 917 | rain (vi) | kótónả ìvula | kòvá mbulà | ónià mbuilà |
| 1006 | rains, the lesser | - | matuónti | múáa yà mbere |


| No | English | 1CiWòorngù | KiiRàngi | KèeMibùwè |
| :---: | :---: | :---: | :---: | :---: |
| 197 | dainy season | chisiki | kichikè | kétikù |
| 580 | rumble | kúlėpùlà | kùdèdérèkả | òtútümà |
| 26 | rat, kind of | sėėzi | - | mbèvà |
| 488 | rat (field) | ibuku | ifüdya | chüurư |
| 24 | rat | - | mpôk | mbeva |
| 25 | rat-(very large, tong-tailed) | seêzi | nyưúri | kermúmürú |
| 883 | razor | viwèèmbé | wèembé | weembe |
| 949 | read | kòsoma | kósȯmá | ólȧàngi |
| 1007 | reap, harvest | kùyáwà, kùtèmà, kùsȯlà | krochwà | otyà |
| 523 | receive | küpókèlà | kuhokèrà | isȯkèrà |
| 537 | reed | itètè/màtètė | màtètè | kitėelè/vitėètè |
| 632 | refuse, say no | kùkaána | kusita | ositità |
| 633 | reject, refuse, dislike | kókaána | kusilitá | ósitità |
| 545 | remain, stay behind* | kùshàälà | kùcháảlà | ócháálà |
| 1035 | remain, stay | kùshàirià | kùcháalà | ochààlà |
| 840 | remember | kükưmbùkilà | kouku̇mbúkirà | okómbókà |
| 499 | resemble * | kùkwififàànà | kwifwáánà | nàvyớ viivì nàctoo |
| 879 | resemble (very closely) | kùkwififwàànà | kwifáănà | nàvyó viivi |
| 1031 | resemble * | kùkwiifwaànà | kwifaaná | nàvyó viivi |
| 149 | rest heavily on, be burdensome | kùkwéétèméèlwa | kwiláángyà | órèmèrwà |
| 964 | rest the cheek on the hand (in brooding mood) | kùkwiinȧmilà | kwikwáátà màkivà | èkwátà itòómà/ kèbàvéryé |
| 957 | rest, take a holiday | kusupa | kơhumulukà | otààooka, ofweererà |
| 249 | return, go back | kúsùwà | kùfyúukà | ótȧàlỏkà |
| 1004 | retum | kúsùwa | kùfyúúkà | òtààlỏkà |
| 500 | revive | kùfưfulà | kùfúfülà | poombóryá |
| 318 | minoceros | mpèlo | mperà | mpérá |
| 988 | rib | ùlòwáávư/ ìmbáávù | lùbảrù/mbàrù | lobbàlu/mbàu |
| 473 | ripe | ichitilè (fruit), ipiitė (in cooking) | livirwa | èveriryé |


| No | English | ìCiWoùngò | KiiRàngi | KèeMbưwè |
| :---: | :---: | :---: | :---: | :---: |
| 996 | ripen (vi) * | kùkwiimbă | kùvirwà | òvéryà |
| 472 | ripen (vi) | kơkwimbà | ku̇virwà | òvéryà |
| 209 | river | ùmbáánà | ipòté | mófúlò |
| 239 | roar, rumble | kơtưturna | ku̇rumá | órumà |
| 644 | roast | kùbánìkà ? | kȯókyà | wȯómyà mwȯȯtwi |
| 350 | roast (in/by fire) | kȯkóóchà | kùchimìkà | wòỏchà |
| 806 | rock | iwe | mȧwu̇yė | iwe |
| 291 | rooster (cock) | 1jógóló | Пkùkölúúmè | nsèsèro |
| 169 | root | ikwáȧzó | mu̇ri | móri |
| 29 | rotten | iwóvu | mbóóvù | kìsàȧmbúkú, iundiè |
| 1012 | round (be) | kúvwilìngwà | kòvirì̀ngà | óviringà |
| 183 | round (go), tum round | kùpilimà | ku̇ifingirà | sóónta |
| 999 | round, become | kúvwiliingwà | ku̇viriingà | oviriingả |
| 110 | rub | kòkùusà | kùsúuntà | súúntà |
| 50a | rubbish, garbage | isákà | kȯsù | visààmbe |
| 321 | rubbish heap | ilifindì là sákà | idüundú là kósù | kipu̇ùmpú |
| 826 | run | kûchìmbî̀là | kutiija | ofeénà |
| 522 | sacrifice | is ${ }_{\text {a daảàkà ? }}$ | húryò | bósá |
| 723 | salt | òmúúnù | sààngȧsà | móny ó |
| 95 | sand | v̇lósáànga | sálò | mossàangà |
| 630 | satiated (be): have enough to eat or drink | kwiikùta | kwiikutà | oikótà |
| 788 | satisfy | kütogweeja | - | moo wáanjà |
| 251 | say to, tell to | kówìlà, kúpóojà | wiirà | ówéérả |
| 783 | scorpion | i̇̀ngònyà | ingi | ngè |
| 453 | scrape | kúpalà | kùkwáala | ofalala |
| 855 | scrape, grate | kúpala | kùkwàalà | ókáròryà |
| 856 | scratch, grate * | kùsòwa | kȯkùnȧ | òkȯnà |
| 668 | scythe, sickle | imóojo | - | mundü |

English
search for
search diligently
seat, stool, chair
see
seed
seize
self
sell
send
separate, set apart separate, leave each other
set a trap
set (of the sun) separate, leave each other
set a trap
set (of the sun) settled (be); be in good order sexual intercourse with (have) seven
sew * sew shadow, shade shame, disgrace shame, modesty shame, modesty sharpen
shave
she, he
sheep
shell, cowrie



| KiiRàngi |  |
| :---: | :---: |
|  | - |
|  | - |
| múlóóndi |  |
| kùtètèmà |  |
| kùtėtèmà |  |
|  | Пkúfi |
|  | màvèà |
|  | iveà/mảvéa |
|  | kồtưlà isossoo |
|  | kwiikùnyà |
|  | nowwáalà, mulwiirt |
|  | kơchékesà |
|  | kwì̀mbá |
|  | kòlüngúuryá |
|  | kùùiòvà |
|  | kùzàama, kübùrukira ? |
|  | irùumbù |
|  | kwiikảlà |
|  | isásalù |
|  | lijòré? |
|  | ndiri |
|  | màkáampi |
|  | kùrúmúki ? |
|  | - |
| kùvả mȧkóofi |  |
| kutèmà |  |
| kùsífnja |  |
|  | mùrèrwà |



| No | English |
| :---: | :---: |
| 822 | shell |
| 725 | shield |
| 712 | shin (bone) |
| 968 | shiver, shudder* |
| 528 | shiver |
| 434 | short |
| 430 | shoulder. tip of |
| 588 | shouider |
| 839 | shout |
| 946 | shrivelled (be): wrinkled |
| 763 | sick |
| 870 | sift |
| 615 | sing |
| 3 | singe |
| 980 | sink, be drowned |
| 170 | sink |
| 726 | sister (his)/ (her) brother |
| 627 | sit |
| 753 | six |
| 785 | size, measure |
| 123 | skin (of person) |
| 124 | skin/rind (of fruit) |
| 303 | sky |
| 865 | slander, accuse falsely, often secretly |
| 470 | slap |
| 970 | slash |
| 220 | slaughter |
| 727 | slave, bond servant |


 §

| No | English | iCiWorng |
| :---: | :---: | :---: |
| 728 | Slave（fermale） | 0ntúmwà |
| 729 | slave，（male） | oritúmwà |
| 136 | sleep（vi） | kokona dotulo |
| 731 | sleep（n） | せ！ロ゙o |
| 730 | sleeping－place，accommodation | ichóonó |
| 967 | slip，be stippery | küsėlèmbojùka |
| 1021 | small | ichi |
| 332 | Smalipox | indoube |
| 241 | smell（sweet）（vi） | kơnưukitia |
| 242 | smelt（ Dad，of fish）（n） | kOniuikkà |
| 240 | smell（bad）（vi） | kùnuimgà iviwi |
| 629 | smoke（n） | ijooshi |
| 428 | smoke（give out）（vi） | － |
| 387 | Snall，stug | Ingono |
| 837 | Snail | İngónȯ |
| 145 | snake，serpent | Ízookà |
| 158 | snare，trap（n） | Ư㇒⿻二乚力刂 |
| 864 | sneeze | kuifyàato |
| 924 | Sniff，smell out |  |
| 296 | snore，snort | － |
| 69 | SOA | 11008994 |
| 732 | song | ญ｜wifímbò |
| 616 | songs＊ | Inilimbo |
| 36 | sook | amatwiitwi |
| 195 | sorcerer | U̇ndōzi |
| 201 | sore | ilơnda |
| 734 | Soul，spinit | 0m00yo ？ |
| 331 | sound，cry | endilo |

## 






| No | English |
| :--- | :--- |
| 849 | squat (on the haunches) |
| 991 | squeeze oneself up against a |
|  | wall (e.g. to allow another to |
|  | pass) |
| 914 | squeeze out |
| 343 | squeeze, mili |
| 102 | squirrel |
| 562 | stack, pile up |
| 1029 | stand (vi) |
| 735 | star |
| 390 | stare, glare |
| 202 | start off, send away |
| 799 | starte, catch unawares |
| 830 | starte, jerk |
| 618 | steal |
| 266 | steel |
| 554 | stern (of maize, miliet, etc.) |
| 825 | step over |
| 315 | sterile man (or wornan) |
| 541 | stick |
| 74 | stir, mix by stiming |
| 850 | stir |
| 78 | stir up |
| 61 | stone |
| 228 | store up, collect |
| 154 | straight (make) |
| 268 | stranger, guest |
| 661 | stream, current |
| 798 | strength. power |
|  |  |






| No | English | íciwoùngò |
| :---: | :---: | :---: |
| 233 | take off (clothes), undress | kóvuútà |
| 530 | tangle |  |
| 898 | taste (v) | kờmyȧàndả |
| 985 | teach, instruct | koltingà |
| 621 | tears | masoozi |
| 412 | ten | ikòmi |
| 121 | ternite | İshwà |
| 739 | lesticle | a amaßolo |
| 1020 | that | yilà |
| 455 | thatched roof | ivïmbo |
| 767 | there | kòla |
| 54 | they | àwėènê |
| 444 | thick, fat | inénù |
| 86 | thicket * | isákà, ipoolu |
| 854 | thicket | isákà, ipooolù |
| 619 | thief | òmwivi |
| 23 | thigh (of human) | lúpàambà imbáambà |
| 22 | thigh (of animal) | lópàambal imbàamba |
| 559 | thing | chíindù |
| 987 | think, imagine | kùwáaja ? |
| 651 | thisst | inyöola |
| 740 | thom | iliiswa/amiiwwa |
| 689 | threaten | kùkwóówơkà |
| 532 | three | zitato |
| 115 | thrust into | kótùula |
| 420 | tick (cattle or dog) | iìngùpè ? |
| 1034 | tie (fasten) (vt) | kùnyèpà |
| 258 | tie up | kùnyépá |


| KiiRàngi | KèeMbùwe |
| :---: | :---: |
| kwifúmyà ngoo | os súnyá ngȯo |
| kwiláringirityà | ȯsànjàsàànja |
| kùsáérà | ȯsèèrà |
| ku̇tundishà ? | ómàmyishà |
| milisöri | meèsóri |
| ikèmi | kómi |
| móswà | mekessè |
| ndùù | mbyà |
| (kì)-là | kèrá |
| màkìnu | njalo |
| körà | làrá |
| vȯȯvó | vòó |
| nenèhà | nénè |
| isákà | toóndó/màtoondo |
| isâkà | kàtȯòndơ/mátóondó |
| mwiivi | mwèivi |
| ràawà/màáwà | kiverrô/viverò |
| kijùmbolò | kivèrô/vivèrò |
| kiintu | kimàkà |
| kwiritikànà | óririkànả |
| nyơóà | nyòtuà |
| mwiliwa | mwilwà/miliwa |
| kȯófyà | wùùmbả |
| itatù | saáto |
| kotutuinga | ofishà |
| Пkưtà | ఫkȯófa |
| küchúuingà | otüngá |
| kòchưư̇ga nà lờdt | ôtùngánà mori |


$\stackrel{\cong}{\sim}$


## 


In fintandurniml

$$
\begin{aligned}
& \text { English } \\
& \text { water } \\
& \text { wave, let off a trap, remove a } \\
& \text { Spell } \\
& \text { we } \\
& \text { weak } \\
& \text { wean a child. give leave, send } \\
& \text { away } \\
& \text { wear, dress } \\
& \text { weave, knit } \\
& \text { weight, fhythm } \\
& \text { well } \\
& \text { wet (get) } \\
& \text { what? } \\
& \text { which? } \\
& \text { whisting } \\
& \text { white man } \\
& \text { white } \\
& \text { who? } \\
& \text { wicked } \\
& \text { wife } \\
& \text { wind up (thread) } \\
& \text { wind } \\
& \text { winnow } \\
& \text { wipe } \\
& \text { wire (brass) } \\
& \text { witchcraft } \\
& \text { withhold from } \\
& \text { withhold from, abstain } \\
& \text { woman }
\end{aligned}
$$



| No | English |
| :--- | :--- |
| 747 | womb |
| 812 | word |
| 772 | work as a mason |
| 167 | work (n) |
| 81 | wrap up |
| 344 | wring (clothes) |
| 773 | yawn |
| 593 | year |
| 750 | yesterday |
| 15 | you (sing.) |
| 1018 | you (pl.) |
| 715 | young man |
| 637 | your(s) (pl. 2nd) per |
| 693 | youth |
|  |  |
| 292 | zebra |


| No | English | Kikfímbù N |
| :---: | :---: | :---: |
| 133 | abdomen, stomach, belly | ndà |
| 495 | abscess, boil | iputè |
| 786a | abundant/abound | kwijoulà |
| 786 | abundant | kwijijulà |
| 571 | abuse, insult | kútùxảnà |
| 252 | abuse, reproach | kétâkta |

Proto-Bantu (Guthrie) 1284 -màn(i)-, 968 -jüb-? 1071 -kft-
 ps 106 -cidalkú 882 gùdù $422 / 3$-cúrgù $965^{12}$-jùndù/jùndo 39 -bá(à)mb2059 -yim(id). 158 -boko
1142 kóno



| No | English | KiKiímbù-N |
| :---: | :---: | :---: |
| 809 | accustomed (get) | kùmànyíilà |
| 274 | act (v) | kunoja |
| 229 | add up | kȯóngèėlyà |
| 927 | adjacent (be), border (vi) | kȯ\|ifimbiquadnà |
| 662 | adze, carpenter's | mbiijo |
| 254 | affair | mpola |
| 1002 | afraid (be) | kóógópà |
| 168 | agriculture | kùlimà |
| 926 | all | -oósé |
| 248 | alter, change | kơgàlòlà |
| 595 | animal | ndimwàâna |
| 617 | answer a call | kwilitux |
| 782 | answer, reply | kùtààngúlà |
| 664 | ant (reddish-brown biting) | silààmbà |
| 122 | ant-hill | ktswa |
| 663 | ant (smati) | nsiensi |
| 586 | arrvil | - |
| 989 | apply by stretching, spread | kôßààmbà |
| 976 | appoint, set up | kòlàárygà |
| 55 | arm, hand | muxȯnó/mixónó |
| 771 | armpit | Пkwàapà |








| No | English | KiKífmbù-N |
| :---: | :---: | :---: |
| 807 | build | kujeènga |
| 674 | bull | iyãgàarnbà |
| 80 | bunch (of hair) | isáañay lyà nyélė |
| 890 | burden, load | múligo |
| 645 | burn (vt \& vi) | kúßlàxà |
| 231 | bumt (become) | kúpyà |
| 179 | tury | kazyrixa |
| 555 | bush | ipoolù |
| 21 | buttermik | mbópoto |
| 514 | buttocks | itàxò/mátàxò |
| 301 | buy | kùgula |
| 873 | calabash | nseénkè |
| 857 | calf of the leg | lùsảlútá |
| 877 | calf | ndàảmà |
| 31 | call | kwiitana |
| 675 | canoe (dug-out) | - |
| 602 | canoe | - |
| 993 | carry a child on the back (in a blanket) | kupáápa |
| 567 | carry/ift on to head (take up) a heavy load | kwiitwitkà |
| 97 | carry astride on the hip | kùpàgảta |
| 560 | carry, take | kusola |
| 578 | carry, convey | kưsóómbȧ |
| 104 | cat | nyàáu |
| 286 | cattle | nsàvò, mituyo |


| KiKímbùs | Proto-Bantu (Guthrie) |
| :---: | :---: |
| kujeèngà | 935 -jeng- |
| igoombe | 697 -dúmè, ps. 193 -dómì |
| isaláņxà | ps 103 -cici |
| múligò | 614 -digò |
| kúßàxà, kujpėembà | 1902 -yak34 -bàk(i)- |
| kùpyȧ | 1502 -pi- |
| kuppusiifyà, kùzyikkà | 615d -dilik- |
| ipoólù | 260 -càkä |
| - |  |
| itàxò/màtảxò | 1650 -tákó |
| ku̇gùlà | 876 -gúd- |
| iseénxè | 426 -cúpá <br> 296 -cápò |
| nsàlútà | 264 -càkü |
| idámà | 1922 -yànà |
| kwitánà | $\begin{aligned} & 105 \text {-bid- } \\ & 2096 \text {-yit- } \end{aligned}$ |
| tgàláwà | 1949 -yâtò |
| igàláwà | 1949 -yátò |
| kùpàapà | 1448 -pààpps 520 -yibàd- |
| kwiturixá | 1812 tuik- |
| kúlèlyà | 1448 -paàp- |
| küsola | 197 -bu0k-, 36512-cod- |
| kwinoúúlyà | 1806 -túád- |
| inyȧȧù | 1420 -pákà |
| imifúyo | 850 -gómbé |


| No | English | Kikifmbò-N |
| :---: | :---: | :---: |
| 486 | cease, finish | kùmàta |
| 526 | centipede | táảndù ? |
| 247 | change, tum round | kȯgètóxà |
| 334 | charcoal | ixalàmaxala |
| 963 | charm (esp. to ensure wife's fidelity) ( $n$ ) | kúlėgà |
| 32 | chase (away) | kȯßiíngà |
| 515 | cheek | itamà |
| 92 | cheerful (become) | kòsângàlàmúxà |
| 106 | cheetah | dưmà ? |
| 585 | chest | kikùßà |
| 672 | chest (of animals and birds) | kiküßà |
| 431 | chief, headman | mühányà ? |
| 431a | chief | mútèmi |
| 679 | child, infant | mwàànà |
| 597 | child, offspring | mwàaná |
| 886 | chin | kílèzù |
| 83 | choose | kưsààgưừà |
| 109 | civet cat | walalàmúkiilyà |
| 255 | clan | múgảnà |
| 841 | climb, ascend | kȯtáánta |
| 550 | clod, lump | ilióngó |
| 851 | close (the eyes, mouth, etc.) | kutlìndiilà, kùmumyã |
| 299 | cloth | kitàmbalà |
| 235 | clothe | kúlyiiixà |
| 300 | clothes, material | mwéèndà/ myéendà |
| 305 | cloud | iluùndè |


| Kikímbò-S | Proto-Bantu (Guthrie) |
| :---: | :---: |
| kúmàlya | 351 -cidd, 1281 -màd- |
| itáàndò | - |
| kùkélyà, kògèlóxà | 759 b -gàdùk- |
| ixâlárààala | 980 -kada |
| - | $\begin{aligned} & 990 \text {-kàg-, } 293 \text {-càngó ? } \\ & 1698 \text {-teg. } \end{aligned}$ |
| kùpiingà | 129 -bing- |
| itàmà | 1652 -támà 300 -cayy |
| kùsàngälàmúkà | 287 -cang- |
| isùpi ? | . |
| kikùßßà | 1258 -kúbà |
| kiküßà | 1258 -kúbà |
| mükùù | ps 436 -témi, 1195 -kódó, <br> 1911 -yámì |
| mútemi | 1911 -yamit ps 436 -temi |
| mwáánà | 1922 -yănà, 1923 -yảnäkė |
| mwàảnȧ | 1922 -yâna |
| kipúpi | 520 -dèdù |
| kòsógoólià | 255 -caàgód-, 3651/2 -còd- |
| - | 1878 -tùngó |
| uxóo | 779 -gàndà, 552 -diàngó? |
| kùtáántà | - |
| kißoùumbà | - |
| kùtiindiila, kükuùmbà mulomò | 617 -dim- ? |
| kitàambálà | 487 -dàmba ? |
| kùlyi̇ixà | 720 -dưád- 728 -dúfk1915 -yămb- |
| mwėendà | 1978 -yéndà, 873 -gùbó |
| iluùndè | 748 -dündè |


| No | English | Kikíimbò-N |
| :---: | :---: | :---: |
| 817 | coagulate | kùgȧándà |
| 941 | cobra (spititing) | nswitla ? |
| 906 | cohabit | kwihiàatâ, kwiligoná |
| 465 | cold | mpèpò |
| 624 | come | kwiijà |
| 505 | come on suddenly, take in the act | küßảgànikilyà |
| 230 | construct, put together | kònȯgėèlyà |
| 471 | cook | kúléexa |
| 557 | cook in water or fat | kúteéxa |
| 43 | cooking pan, small | kìnizo |
| 385 | cool (become); get well | kòpôlà |
| 265 | copper, brass | shaba ? |
| 283 | copy a pattern | - |
| 894 | cork, stopper | kikùndikilyô |
| 52 | corpse, carcass | múpiimbà |
| 1001 | corpse (human) | müßiimbà |
| 383 | cough (vi) | kujuctota |
| 4 | count | kößàlyà |
| 100 | country (our) | nsi yiiswee |
| 14 | courtyard | iseésà |
| 852 | cover (up) | kúkùndikilyâ |
| 285 | cow | noómbė |
| 1003 | coward | mwóoßà |
| 335 | crab | п̧ėdelalágéege |
| 520 | crawl creep | kwȧaggưulà |
| 612 | cricket | - |


| KiKíámbù-S | Proto-Bantu (Guthrie) |
| :---: | :---: |
| kùgààndà | 777 -gánd- |
| Пkȯßökȯ | 1857a -tuid- |
| kwiyingilifla | 2016 -yingid- |
| mpèpó | 1492 -pépò |
| wiija | 2045 -yij- |
| $\beta$ ßòshiishà ? | 284a -cảngàn- ?, 1940 -yànk- ? |
| kùnógèelelyâ | 86 -bėèj |
| kưtèexà | 734 -düg-, 1701 -téèk- |
| kususelúka | 1777 -100.g. 1778 -tok- |
| kixàminglio | 120 -bigà 134 -biyá |
| kúpótà | 1564 -pod- |
| shabà ? | - |
| kùlôndèlelá | 654 -dônd- |
| kikùndikilô, kifùnixó? | 606 -dibò, 1268a -kúnik1271a -kúndik- |
| múviimbà | 145 -bimbá |
| míviimba | $\begin{aligned} & 145 \text {-bimbà } \\ & 1832 \text { tùmb- } \end{aligned}$ |
| kobobla | 1108-6000 |
| küßàlyà | 9 -bàd- |
| insi | $331-\mathrm{cf}$ |
| iseésà | 55 -bânjà |
| kùkùndikilyâ | 1268 -künik- |
| nóómbé | 1402 -nómbé |
| mwoóßa | 2103 -yoba |
| likà ? | 981 -kádá |
| kwȧȧgưừà | 491 -dànd- |
| insifitio | 1981 -yenjé |


| Proto-Bantu (Guthrie) |
| :---: |
| 533 -dèmá |
| 869 -gùėnà, 870 -gùinà |
| 1051 -kid-, 1921 -yȧmbxik. |
| 1233 -kúngừùdú |
| - |
| 1149 -kony- |
| 1579 -pȯnd- |
| 1125 -kókỏ |
| 561 -did- |
| - |
| - |
| 568 -dim- |
| 1565 -pod- |
| 1703 tem- |
| 321 -cenţg. 10 -bad- |
| 385 -còng, 1365 -noód- |
| ps 428 támb- |
| 146 -bin- |
| 2037 -yidu, 1561 -pilipi ? |
| 1073 -kiti ? |
| 1047 -kf- |
| - |
| 957 -jútidi |
| 352 -ciku, 1750 -tiku |
| 329 -ci, 955 -júbȧ |
| - |
| 957 -jútidi |



| No | English | KiKímbò-N |
| :---: | :---: | :---: |
| 153 | cripple | muilèmà |
| 803 | crocodite | $\eta$ wiòna |
| 319 | cross (a river) | kotáàmbóxània |
| 846 | crow ( n ) | ikùngùlư |
| 308 | crown of the head | mpàándà |
| 79 | crumple | kukinyatyá |
| 370 | crush by pounding, pulverize | kùpóóndà |
| 393 | crust | ßúxoxó |
| 160 | cry, wail | kưlilả |
| 966 | cucumber, small | màtảángà |
| 736 | cudgel | ๆxómè |
| 165 | cultivate | külimà |
| 950 | cure, cool, heal | kúpolyá |
| 355 | cut | kúpità |
| 98 | cut, lop | kúnȯgèlèlwà |
| 117 | cut to shape, sharpen to a point | kúpüùnja |
| 365 | dance (of men, to show courage) | kwidàăhi ? |
| 53 | dance | kwigeyá muimmủ |
| 622 | dark, black | -ààpi |
| 481 | darkness | kiiti |
| 824 | dawn (vi) | kweélà |
| 359 | dawn, daybreak | wėélà |
| 744 | day after tomorrow | majèoli |
| 130 | day | lúsikùnsikù |
| 682 | day-time | lyúunsi |
| 868 | day (ail) | lyoúnsi lyóonsê |
| 751 | day before yesterday | májừli |


| No | English | KiKíimbè-N | Kikímbù-s | Proto-Bantu (Guthrie) |
| :---: | :---: | :---: | :---: | :---: |
| 423 | dead person | mưtèlè | muichi | 1074 -ki, 1247 -kú |
| 424 | death | lưfù | nchá | 1256 -küo |
| 931 | decorate | kónogeetyá | könȯgetertya | ps 161-d embó, 578 -dimbó |
| 446 a | defecate | kònià | kònià | 1355 -ni- |
| 631 | denial | kúsiità | kúsitità | 1000 kâán- 529 -dèm |
| 821 | deny | kúsiinà | kúsitità | 1000 -kảán- |
| 648 | destroy, spoil | kúplipyà | kȯnóúnà | - |
| 437 | dew | tùmè | tome | 1290 -me |
| 219 | die (cause to), put to death * | kưwùlàgà | kưgưtàalyà | 184 -búd(àg) 2095 -yit |
| 1027 | die * | kùtwá, kùgùlààlà | kùchà | 1249 -kú |
| 425 | die | kơgùlààà | kùchà | 1074 -ki-, 1249 -kí- |
| 504 | dig up, dig out | kòpùsúólà | kùpisisutà | 1621 .pükừd- |
| 503 | dig | kùsiimbà | ksiumba | 1754 timb- |
| 466 | diminish, grow less | kừoóhà | kùpùngúxa | 1044 kéep- |
| 635 | dip | kòsàpyà, kólitilyá | kòtápyá | 732 -düb-? , 1781 -tòmb-? |
| 49 | dift | Bucháfù | igáagá | 1093 -kó |
| 680 | district, province, country | nsi | nsi | 331 -cf |
| 245 | divide | kògàwùlà | kògàßà | 754 -gat- |
| 512 | divorce | kuleexaàná | kölexà | 525 -dek- |
| 367 | do, complete, finish | kòmảlyâ | kùmàlyà | 1281 -màd- |
| 366 | do | kònójà | kònògèlèlyà | 1633 táa ? 1710 -tènd- |
| 60 | dog | mbwà | mbwà | 174 -bóà |
| 292a | donkey | ndogope | mpưưnđá | 947 -jobe ? |
| 685 | door | mulyȧảggo | П\|kilì | 2039 -yigì, ps 153 -dàngó |
| 415 | dove (red-eyed) | $\eta$ ¢kuúndà | ņkiuindà | 939 -jibà, 121 -kúu̇ndá |
| 188 | doze | - | kotindifila | 1764 -tilgi(id)- |
| 529 | draw water (from well) | koútappà mifiji | kótapà miiji | 1681 tap - |
| 215 | dream (vt, vi) | kuloótá ndòoti | küloótà | 672 -doot- |


| No | English | KiKíimbò-N |
| :---: | :---: | :---: |
| 328 | dream ( n ) | ndoooti |
| 448 | drink | kùnwa |
| 196 | drizzle | mátóonyye |
| 780 | drop, throw down | kùpäßa |
| 284 | drum | ntưúntú |
| 598 | dry (v), set out to dry | kwȧánixa |
| 346 | dry | -xăkù, -ywà |
| 954 | dry up, ebb | kùxaía |
| 345 | dry up, become dry | kùxàlà |
| 289 | duck | mbȧàtà |
| 243 | dust, cloud of dust | 10゙ßưu̇ß |
| 628 | dwell | kwiikàlà |
| 492 | eagemess, zeal | wȧàngúwààngo |
| 491 | eagle, bird of prey | ixóónà |
| 563 | ear | itwi/mátwi |
| 70 | earth, land | nsi |
| 44 | earthenware vessel for serving up food | nyưủg ${ }^{\text {d }}$ |
| 156 | eat | külya |
| 900 | effort, exertion | ngúlù |
| 273 | egg | igi/màgi |
| 443 | eight | munàànè |
| 705a | elbow | kin xoxóola |
| 329 | elephant | njögú |
| 336 | embers | ixala |
| 842 | embrace | kwiikủmbàtilà |
| 394 | end (come to an), cease | kùléxá |



Proto-Bantu (Guthrie)
ps 186 -dóóti
1378 -nu่-
-

844 -gòmà
1924 -yánik-
ps 557 -yúmù
996 -kảm-, 1585 -pú-
975 -kàd-, 2161 -yờm-
-
1230 -kàng
2053 -yikad-
-

1243 -kùtú, 1813 -túi
331 -cf
120 -bigá, 134 -bìyá
550 -df-
890 -gùdù, 909 -gủdù
ps 249 -güdi
809 -gí
1341 -nánė
1130 -kókȯda
951 -jógú, 1708 témbó
980 -kảdà
1211 kumbàt-
351 -cid-, 1281 -màd-

| No | English | KiKímbò-N |
| :---: | :---: | :---: |
| 952 | escape, recover | kópónà kupoùlùgùxà |
| 899 | exarnine, measure, test | xùplimà |
| 45 | excrement, dung | mábi |
| 958 | exorcise, drive out a devill | külàgüla |
| 784 | explain | kùtėėngà |
| 620 | eye | liisò/misóo |
| 828 | eyebrow | - |
| 838 | eyelash | ๆxȯpè |
| 587 | face downwards | kờülámà kùwu̇ndáála |
| 686 | face | $\beta$ Bushù |
| 940 | fade, disappear | kúlimàànģila |
| 891 | faint, lose consciousness | kúfwà kàßiimbá ká ¡gilir |
| 298 | fall | kùgwà |
| 549 | fall short | kùpùngùkìlwâ |
| 462 | tan, wave | kùpunigfla |
| 764 | far | kùtalit |
| 921 | fat (be) (of animals) | kùnóná |
| 922 | fat (of animals) | -nónile |
| 531a | father | dàádà, báábà |
| 382 | father-in-law, mother-in-law | mùxwè, mủkwiingwà |
| 531 | father (my) | dààdà |
| 687 | fear | wóoßa |
| 652 | feathers, fur | woóyà |
| 848 | fence, enclosure | lơóßà |
| 858 | ferment, turn sour | kùsásà |
| 762 | few (a), not much | -dó |
| 757 | fierce, sharp | kitáki |


| Kikiímbù-S | Proto-Bantu (Guthrie) |
| :---: | :---: |
| kúpónà | 1565 -pód, 1578 -pón-? <br> 1594 -púdơk- ? 1736 -tuid- ? |
| xùplimả | 797 -geds, 1519 -pim- |
| màbi | 135 -bi |
| kudàgà | 1602 -püng- ? |
| kùpàalila | - |
| liisó | 2030 -yicó |
| nyéle ja liisò | 342 -citl, 1153 -kópé 1079 -kigé, 336 -cígé |
| lòkùúmbì | 1155 -kópé |
| kùxúbàmà | - |
| wúshò | 391 -cú, 347 -ciú |
| kùsilikilá | 618 -dim(id)- |
| xòpwèlá màsàlà | 617 -dim- |
| kògwà | 863 -g0े- |
| kùpùngúxa | - |
| koputitilyà | 1489 -pėep-, 1595 -pùk-? |
| kotali | 507 -de, 1645-tadi |
| nȯnù | 815 -gin-, 1370 -nòn- |
| -noónilè | 815 -gin-, 1370 -nan- |
| báábà | 70 -bààbá, 1687 -taaatté |
| muxxwé | 1092 -kỏ, 1174 -kúé |
| baàbà | 7 -bảàbả, 1686 -tảata |
| wóóßa | 2103 yóbà |
| màgálà, wààgi | 2140 -ydyá |
| tưßa | 2146 -yúb- |
| kòsàsà | 241 -càcù |
| kidó | 1044 -kéép- |
| xoli ? | 984 kádi |

English



| No | English | KíKffmbù-N |
| :---: | :---: | :---: |
| 502 | foam | ifülò/máfưtò |
| 143 | fohow (in order) | ku̇oóondà |
| 142 | follow | kȯloónda |
| 823 | food supply for a joumey | mpàámbà |
| 556 | forest | ipooolú |
| 584 | forge | kùtyàanà |
| 889 | forget | kwilßila |
| 458 | fork, bifurcation | mpàànda |
| 442 | four | jinê |
| 295 | frog | chùólà |
| 574 | fruit | Ttưundà ? |
| 349 | fry | kóxàliingà |
| 936 | fully developed, be | kơxoméela |
| 625 | full (become) | kwijijolà |
| 316 | garden | busitáảni |
| 419 | gather (flowers, fruit) | kùyàßà |
| 91 | gathered (be), assembled (be) | kwiiku̇̇̇gànyâ |
| 368 | gazelle (Grant's) | swáálà ? |
| 454 | gazelle, small (impala) | shà |
| 108 | genet (kind of speckied civet cat) | ntuungo, lifùùngò |
| 408 | get, obtain | kùpàtà ? |
| 684 | ghost, sudden apparition | màsćkė |
| 568 | giraffe | ntwiigà |
| 246 | give away (present) | Kúfümya |
| 449 | give | kópeėlà |
| 916 | give light to | kùmúlixa |
| 815 | glide, trickle | kùyélà |



Proto-Bantu (Guthrie)
1615 -púdó
654 -dond-
654 -dônd-
294 -cangú
260 -cảká
403 -cúd-, 1743 -liản-
1989 -yib(idid)-
1407 -pácà, 1435 -pándà
$1345-п(n)$ ѐ
2150 -yülá, 1032 kédè
ps 128x-cum- ?
982 -kádàng-
1190 -kúd- 1132 -kom(àd).
2047b -yijed-
-
2101 -yòb-, 1045 -kèt-
(1075 -kiá) ?
1411 -pádá, 1075 -kiá
1878 tüngò
1453 -pat-
-
ps 468 -tòigà
1404 -pá-
1404 -pá, 2085 -yink-
1330 -mùdik-
406 -cúdò

| No | English | Kikíimbò-N |
| :---: | :---: | :---: |
| 269 | go | kȯyà |
| 639 | go in, come in, enter | kwiingílà |
| 63 | goat | mbüli |
| 694 | goat, (he-) | noúlàati |
| 695 | god | lyươßá |
| 758 | good | wósơgà |
| 388 | goshawk (East African) (Astur tachiro) | - |
| 68 | grain (of cereal) | mpèkè |
| 696 | grandfather | kưởku |
| 697 | grandmother | máámà |
| 432 | grasp, hold in arm | kúdiimà |
| 698 | grass, reeds | másàànjé |
| 406 | grate | kùxwàâlààgà |
| 409 | great, powerful, big | ikolù, ihányà |
| 164 | grief, sorrow | hùzưúni ? |
| 371 | grind (grain with a millstone) | kòshà |
| 372 | grind coarsely | kübalaaga |
| 212 | groove, furrow | - |
| 801 | ground, cultivated | mùgòúndá |
| 405 | grow up, get large, become great | kükùlà |
| 913 | grow (of plants) | külèemba |
| 461 | grown (be fully) | kùxómèèà |
| 373 | gruel, light poridge | mpáápù |
| 358 | grunt, grumble | künưừà |
| 205 | guide aright | küloòndóólà |


| Kikímbó-S | Proto-Bantu (Guthrie) |
| :---: | :---: |
| kòyà | 820 -gì. 1975 -yèna2045 -yij-? |
| kwiifgità | 2083a -yingid- |
| mbüli | 185 -bòdi |
| ngulàati ? | 1581 -póngo |
| mùlu̇ingù | 715 -dùòngò̀, 955 -jóbả 2147 -yúbả |
| nsóga | 2046 -yija |
| isààns! | - |
| tùsàảnxà | 288 -càngà |
| kươkù | 1204 -kóókù |
| mbùyú | 1282 mààmá |
| kùkùmbàtilyà | 1267 -ku̇mbat- |
| isàànji | 393 -cuà |
| kùkwààngúlả | - |
| ikulid | 1195 -küdù |
| kùsààyà ? | - |
| kòsyà | 344 -ci- |
| kübàlăga | 1409 -pảd- |
| xatwilif | - |
| mùgùúndà | 897 -gùndà |
| kúkùlà | 1190 -kúd- |
| kouleemba | 724 -dü- 1273 -mèd- |
| kôkolitifial | 1132 -k óm(ad)-, , 1190 -kúd- |
| mpààpó | 1135 -kómb- |
| kưsȧâyà | - |
| kwixalixa paànsi | 670 -dòngùd- |




| No | English | KiKífimbò-N |
| :---: | :---: | :---: |
| 351 | guinea-fow/ | ๆxààngà |
| 701 | gun | Øgoóhò |
| 702 | hair | lùnyêè/nyéle |
| 977 | hair (long straight- of animals and Europeans) | $\beta$ ßúsiingà |
| 75 | hair (white, grey) | mbyi |
| 703 | hand (flat of) | ixóofi |
| 157 | hand, right | kólyifila |
| 439 | hand (leff) | mùmósó |
| 476 | handle, haft | múpìni |
| 779 | hang in mid-air | koùnipintila |
| 655 | hard | lyááywà |
| 377 | hardship, distress | ògàyó |
| 294 | hare | kàùņàandô |
| 781 | haste | wààngówààngò |
| 795 | hate, detest | kùkilwà |
| 700 | hay | màsäànjè gá ywà |
| 678 | head, chief person | mưkòlò |
| 356 | head | mútwè |
| 352 | head-pad | Øxaảtà, nziingả |
| 561 | heap | ildoúndo |
| 391 | heap up, ready/set on fire | kúpėémbà móỏtò |
| 623 | near | kơtėgėélà |
| 543 | heart | móóyó |
| 944 | hearthstone for putting pots on | mápigà |
| 893 | heavy, serious, dull | itiimbù |



| Kikiimbȯs isààmbàtilyó |  |
| :---: | :---: |
|  | - |
| xùpriindà |  |
|  | П¢kùkù |
| ipà, uxoo |  |
|  | nscipi |
| kòswèexà |  |
| kòwodia |  |
| njild |  |
| kitưùndà <br> êlưnyoóngà <br> ntòmóómbò <br> kükùßả |  |
|  |  |
|  |  |
|  |  |
| isipi |  |
| kùßáámbà ? <br> idt́kèli, ishimó? |  |
|  |  |
| kùsitimba kùwilisè, paxàà |  |
|  |  |
| wơòki |  |
| kükùlyà |  |
| nyééngó |  |
| ndoánó |  |
| liinơ, ipèembè |  |
|  |  |
|  | пxaat, inyúúmba jiingà |

$\stackrel{\overbrace{}}{\stackrel{~}{~}}$

English
heel (of foot)
heifer
hem, make a border
sapjoq в ауеш 'шәч
hen, fowl, chicken
here
hiccup
hide ( v )
high, be (of meat) highway hill hip
hippopotamus
hit with a hammer hoe
hold, arrest
hole, nest
hollow out
home
honey
honour
hook (for pull
branches in hook (fist) horse * house


| No | English | KiKírimbù-N |
| :---: | :---: | :---: |
| 572 | hump (of hunchback) | lùßégà |
| 573 | nump (of cow) | lüßega |
| 756 | mundred | ìgànà |
| 320 | nunger | njâlà |
| 33 | nunt | kúpèẻndà |
| 34 | nunter (professional) | múpeéndi |
| 35 | nunting | küßeendà |
| 227 | husband | múgỏóshà |
| 808 | hut | nyủúmbà |
| 709 | hyena | mpiti |
| 1016 | 1 | nėèné |
| 1013 | idieness, sloth | úxàta |
| 901 | ill (be); groan | kúlwáálà |
| 902 | illness, (crippling) | ßúlwiilè |
| 275 | imitate | kùlóȯndėėà |
| 16 | in front of | kơpôlơỏngólo |
| 353 | in the middle of | pàxàtì |
| 118 | incite | kùsoongánià |
| 206 | increase, make greater | kóongètyà |
| 155 | increase |  |
| 426 | inheritance | isâalò, ku̇sȧálà |
| 542 | inside, in | múxàtì |
| 353a | inside, middle | paxali |
| 132 | intestines | pulá |
| 389 | intoxicated (get) | kúxolvà |
| 513 | iron ore | - |
| 264 | iron | chùorma |
| 710 | island | kisiwà ? |


| Kikfímbù-S | Proto-Aantu (Guthrie) |
| :---: | :---: |
| kikukủ | 84 -bėgà |
| nüùnđủ? | - |
| mià ? | 774 -gànả |
| njalà | 917 -jàdà |
| kùgúưpa | 904 -guitm- |
| mùgưláji | 904 -gúfm- |
| kùgúúpa |  |
| mùgwiishà | 1101 kóci, 1102 kóci 697 -dúmé |
| xảai, idiindigà | 2168 - пy $\mathbf{~ 2 0 m b a ́ ~}$ |
| mpiti | 1562 -pifi |
| ùnéené | $1344^{12}$-né |
| úxâtà | 529 -dem- |
| kòlwáálà | 677 -dúád- |
| ülwille | 678 -dúàdè, 679 -dúaidé |
| kùlóơndêtélà | 1995 -yig- |
| kòlȯỏng ${ }^{\text {cólò }}$ | 69 -bėdė |
| paxáti | 1018a/b -pa/mò-kati |
| kusooóngèléta | 383 -cong- |
| kóóngètėlyà | 2129 -yóng(idi)-, 1179 -kúfd- |
| goóngèlélà | 2129 -yòng- |
| mas ${ }^{\text {ajalo }}$ | - |
| mu̇xáti | 1018 -kàtif, 443 -dá |
| paxati | 1018 -kati |
| ¢ita | 442 -dà |
| kuxòlwà | 1107a -kódù- |
| mabwé ga chưúmà | 2162 -yuma |
| chúúmà | 1643 -tadè, 2162 -yúma |
| kisiowa ? | ps 94 -cèngà, 676 - dưa |


| KiKímbù-N | KiKímbó-S |
| :---: | :---: |
| kúßảßà | kùnyègélà |
| kùfyeènyènkèla, kűxwàmà ? | kuxwaámà ? |
| mázȧkùlà | ikủpà |
| ißùßà | wiilus |
| tơgèendó | musiinjoo |
| kùyáángúlà | kùyáángúlilyá |
| kù $\mathfrak{\text { àȧn } x a ̇ ~}$ | kùdiixa |
| mpigo | impìgó |
| kúwùlága | kơwòlàgà |
| mútèmi | mutèmi |
| inààndà | isàánst |
| kùxảandà | küluß |
| iyùòngó/ máyoùngó | iilù |
| kùtủùngámà, kúsuxàámbà | kùtùùngámà |
| lushù | nsiimè |
| - | mpuntùto |
| igüủndo | igixundo |
| kúmányà | kùmányà |
| iziwà ? | - |
| kúsúủntà | kutètėmèla |
| tàlà | tálà |
| nsí yà ywà/nxàku | nsí ๆxàxù/ $\ddagger \times$ alù |
| -kùlo, -hányà | -kòlo |
| kusexa | kuséxà |
| kúsunixà | kükuündixà |
| múxảtà | uxatala |
| ititi/màtiti | isȧȧnjìmàsáảnjị |
| itili | itili/mátitì |


| English |
| :--- |
| itch |
| jammed (become) |
| jaw (bone) |
| jealousy |
| joumey |
| judge (vt) |
| jump, leap |
| kidney |
| kill |
| king |
| kite |
| knead |
| knee |
| kneel |
| knife |
| knife, thin, curved, |
| broad-bladed |
| knot |
| know |
| lake |
| lame (be) |
| lamp |
| land (dry) |
| large, great, big * |
| laugh |
| lay over on one side |
| lazy |
| leaf, blade of grass |
| leaf (tree) |
|  |




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范


| No | English | KiKímbò-N |
| :---: | :---: | :---: |
| 972 | listless (be) | kùnyónónyà |
| 1024 | liver | itéma |
| 429 | livestock (keep) | kùsäßȧ |
| 819 | lobster | - |
| 794 | locust | nzige |
| 155a | long (become) | kùliihà |
| 144 | long | -libù |
| 131 | look after, care for | kútüunzyà |
| 871 | look after grazing cattle, help a sick man on the road | kưdiìma |
| 354 | look at, examine | kòkuuna |
| 354a | look around | kơkùưna |
| 200 | look for, hang around (to get sornething), pursue | kùdóßėélà |
| 973 | loose (be); faint, weak | künyònónyà |
| 181 | lost, get | kùlimiíla |
| 1023 | louse | mpàni |
| 769 | love, want | kútogwà |
| 934 | lung | màpúúpo |
| 713 | magic * | pòlógi |
| 714 | maize | igààgwè/màgààg |
| 521 | make offerings to the dead | kwiisèéngà |
| 226 | male | igoosha |
| 10 | mamba, green (kind of poisonous snake) |  |
| 793 | many | nyiingt |
| 1019 | many * | nyiingi |


| No | English | KiKíímbó- ${ }^{\text {N }}$ |
| :---: | :---: | :---: |
| 897 | marriage | kwiitoólà |
| 895 | marry (of man) | kưtooolà |
| 896 | marty (give in marriage-of parents, priests) | kòtơolyà |
| 814 | master | - |
| 888 | match, harmonise (vi) | kwilixòlà |
| 935 | mature | kòmèèliu |
| 596 | meat | nyàmà |
| 259 | medicine, remedy | ßügàanga |
| 260 | medicine (art of medicine man) | púfùmù |
| 261 | medicine-man | múfùmù |
| 90 | meet | kwáagààná |
| 861 | mell | kȯnyêméntu̇kà |
| 845 | midwife | - |
| 859 | migrate, move away | kȯsáamá |
| 1030 | milk ( n ) | mäßèèle |
| 20 | milk (Curdied), curds | mbößotó |
| 19 | milk, (fresh) ( n ) | màshưshư |
| 903 | millet (bulliush) | Böpèle |
| 290 | millipede | igoóngólo |
| 73 | mix (ingredients, season food') | kükàtinga |
| 72 | mix, put together | kusuànjà |
| 363 | monkey (small lightish-coloured) | ntoùmbili |
| 362 | monkey (colobus- (with long black silk hair, white on shoulders) | ntưùmbìli |


| Kikifimbùs | Proto-Bantu (Guthrie) |
| :---: | :---: |
| hoolle, ndoa? | 1175 ku̇ed- 1774 -food- |
| kwiitỏola | 1774 -tóód-, 323 -céng1175 -kúéG. ? |
| kòtóòlyá | 1774 -tóod- |
| mútèmi | - |
| kùlìngànita | 583 -ding-, 584 -ding(ản)- |
| kùkùlifilà | 1132 -kóm(àd)-, 1645 -tádì ? |
| nyamá | 1910 -(n)yámá |
| ̇̀gàảngà u̇gōtã | 787 -gángà |
| iffurnu | 1868 -túmó, 787 -gảngà 471 -dàgüd- |
| mủfùmủ | 786 -gànga, 1868 tưmù ? |
| kwitáangà | 284 -cáng- |
| kùpéèa | 1883 -yábik. |
| mùléliishà | - |
| kùsáamà | 265 -caam- |
| màßéelė | 73 -béédè |
| mảpaate |  |
| màßéelè | 73 -béede |
| ùßélè | 70 -bèdé |
| igóongolo | 859 -gongodó |
| kùsalitinxania | 286b -cangani- |
| kùkútügàniả | 286 -cang - |
| ntừmbili | - |
| 1)küünkù ? | - |


 ${ }^{7,38}$


| No | English | KǐKíimbù-N | Kikíimbòs | Proto-Bantu (Guthrie) |
| :---: | :---: | :---: | :---: | :---: |
| 939 | obstruct | kópiìngà | ku̇siitìlyà | 1532 -ping-, 529 -dèm1069 -king- |
| 48 | offspring | múgànà, mwàànà | Botelie | 1922 -yâà |
| 66 | oil (from plants) | - | mákutà | 211 -búto |
| 435 | oil | mákủtả | mákùtà | 1278 -kútà |
| 818 | old times, the past | xálé | xálè, palmyáảxà | 983 -káde |
| 411 | old person | muxómbi | mulàala, muxoómbi | 1197 -küdú |
| 410 | old | nsáxalıo, ixámà, lyà xálè | nsàxàlò | 1196 -kúdù |
| 214 | one-eyed (being) | nsȯȯngò | nsooòngó | 388 -còngó |
| 440 | one | lúmó | tmwi | 1314 -mó |
| 590 | open mouth wide | kwáasàmà | kwȧàsáma | 1889a -yácàm- |
| 984 | open | kudùgula | ku̇digúlà | 736 b -dugùd-, 2041 -yigud- |
| 829 | open (set ajar) a door | kùdùgùla | kùdigúla | 736 b -dügùd., 2041 -yigùd- |
| 876 | order, direct | kờàgilìlyà | kùlàgìlilya | 496 -dàgìd (1). |
| 961 | ostrich | mbúuni ? | mbúuni ? | - |
| 640 | our(s) pl. 1st person) | yiiswe, yiitu | -à kúwiiswè | 2097 -yitú |
| 506 | out (go), go away | kófüma | kufuma | 1622 -púm- |
| 324 | outside | hảánji | paánji | 928 -pàl-kù -(ת) jé |
| 217 | overcome; win, vanquish | kòkiindà | kȯkiindà | 1084 -kind- |
| 995 | owed by, be | kùlȯóndà | - | 665 -dond- |
| 835 | oyster | - | - | - |
| 207 | pack (luggage) | kơtưunga | kotưüngà pà lômwi | 1877 tùng- |
| 208 | pack, press together | kòkimảngilà | kùkiindilà | - |
| 456 | pack, flock, group | idaale | idâalè/màdaàlè | - |
| 457 | pack, bale, bundle (n) | maligo | mánigó | 1833 -10̀mbà |
| 236 | paddle ( n ) * | - | mutioin xó |  |
| 342 | palate | ilàànxảmilo | kinaánxù | - |
| 9 | paim (date) | mutéende | müteende | 1712 -tende |
| 719 | palm-wine | ntili | ntìlì | - |





| No | English |
| :--- | :--- |
| 257 | palm (of hand) |
| 6 | palm (raphia) |
| 7 | paim (borassus) |
| 8 | paim (oil) |
| 459 | palpitate, flutter, Iremble |
| 47 | parent, she who begets |
| 720 | parrot |
| 232 | pass, surpass |
| 325 | path |
| 159 | pay |
| 600 | pay attention, take care |
| 820 | peel, shel |
| 12 | peg |
| 11 | pegs (tent) |
| 494 | penetrate |
| 721 | penis |
| 884 | penknife, lancet |
| 558 | person |
| 638 | pestle |
| 312 | pig |
| 414 | pigeon, kind of |
| 579 | pile up, pile loads on head |
| 479 | pinch, make narrow |
| 357 | pipe (tobacco) |
| 552 | pit, hole |
| 974 | place, put (vt) |
| 722 | place (n) |
| 892 | place of the dead |
|  |  |


| No | English | KiKímbò-N |
| :---: | :---: | :---: |
| 225 | plait | kusipa |
| 932 | plant, sow | kùpàãntà, kùhàȧmbả |
| 510 | platiorm | - |
| 834 | please, satisfy (vt) | - |
| 93 | pleased (be) | kòtỏgéziwà |
| 13 | plot of ground | kiwaànja ? |
| 647 | plunder (a town) | - |
| 1014 | plunge into, cause to sink | kùdùmbükilyá |
| 114 | poke | kùpémbėlélyâ |
| 737 | pole, thin | lùkito/nkitò |
| 111 | polish, clean by rubbing | kưpaiaàngúla |
| 177 | pool, pond | ilààmbó |
| 923 | porcupine | nưongolif |
| 374 | porridge (stiff) | $\beta$ ¢ogalt |
| 42 | pot (metal) | ikopó |
| 41 | pot, vessel | kisème/visemè |
| 39 | pot, mug | muxébè |
| 40 | pot, cooking (earthen) | nyu̇ùngò |
| 749 | potato (sweet) | kảfü |
| 646 | potter's kiln | Itimílò |
| 369 | pound (grain in a mortar to get off the husks) | Kópuóla |
| 441 | pour away | kwiita |
| 641 | pour | kótitila |
| 748 | pregnancy | ndà, mifiuixyge |
| 636 | pregnant, be | kòßi ni ndà/ná miitùungó |
| 599 | prepare | kùnógèlelyâ |
| 553 | press out (oil seed, sugar cane) | kúxàma |
| 986 | produce, put forth, display | kúfümyà |



Proto-Bantu (Guthrie)
693 -dokk
1432 -pảnd-
1640 -tádà
-
312a -cèkid-
14 -bádà

2026a -yibìd, 593 -diàm-
365 -cócoc-
-
1409 -pád-, 1693 tèdid-
603 -dita?
1376x -nùngú
765 -gadi
2173 -nùngú /nyùngú

2173 .nùngú /nyùngó
-
1807 tưaing-

2094 -yit
2094 -yit(İd)-, 435 -cuk(v̇d- ?
443 -dà
2062 -yimit- ?
-
995 -kam(ùd)-
1622 -púm-, 1916 -yàmb-

| No | English | Kikírimbò-N |
| :---: | :---: | :---: |
| 909 | prominent (be); put out | kúfùmíila |
| 518 | pronounce | koleéngá |
| 340 | prolect by charm (medicine) | kúsàlà |
| 947 | protect by chams (target) | kóxàgà |
| 475 | putt-adder | kipili, imomè |
| 244 | pull | kükwéesà |
| 173 | pull up, come to a hall | kwiìmà |
| 172 | pull up, root up | kòdưbúlà |
| 833 | pull, drag | kȯkwèèsá |
| 57 | pump | ibóómba |
| 548 | push | hưsùv́ņxà |
| 992 | put, place, set | kưtưol ${ }^{\text {a }}$ |
| 887 | put together for comparison | kưgèlanizilyà |
| 969 | put a pot on the fire | kótėėngá |
| 981 | put together, compose | kȯtùóngà |
| 862 | python | nsato |
| 656 | quarrel (vi) | kwilikenia |
| 180 | quench, extinguish | kúlimyà |
| 485 | quiet (be) | kwiixàlà sêlè |
| 76 | rain | mbulia |
| 917 | rain (vi) | kótỏónyà |
| 1006 | rains, the lesser | mwáánóli |
| 197 | rainy season | kitikù |
| 580 | rumble | kȯgilimà |
| 26 | rat, kind of | Пkososo |
| 488 | rat (field) | Пkoso |
| 24 | rat | nkoso |


| Kikitmbo-s |  |
| :---: | :---: |
|  | kúpùmilyâ |
| kúwiùà |  |
|  | kúsàà |
| kúxàgà |  |
| kipíli |  |
|  | kùkweésà |
| kwifmà |  |
|  | kơlimbúlà |
| kükweèsà |  |
| ibóomba |  |
| kùteènika |  |
| ku̇tớlà |  |
| kùgèlànilyà |  |
| kùtéexa, kùtèenga |  |
| kôtùùngániã |  |
| nsàtó, nsâwàakà ? |  |
|  | kwiltàchá |
| kȯli |  |
| kwiixàlà nyété |  |
| mbüla |  |
| kütóónyà |  |
| chóónsi |  |
| kitike |  |
| kwifitùtomúta |  |
| nsè̀̇ngi |  |
| mbèßà |  |
|  | mbèßá |

Proto-Bantu (Guthrie)
1263 -kúm- ?, 1622 -púm-
1719 -tet-
990 -kàg-
990 -kàg-
1513 -pidì
749 düt-
2006 -yim-
1814 -túb(òd)-?
749 -dit-
1758 a tindik-
1818 -túv́d-, 122 -bfik-
795 gèd-
1696a tédík-, 1702 -téék-
1877 -tüng-, 625 -ding-
297 -câtò
-
617 dim-
1589a -púdik-
225 -buidà
1787 -tóni-Atony-, 1352 -ni-
1861 -tüd-
.
1751 tikù ?
1853 -tùtừm-
306 -cèngi,
1597 -púkȯ
65 -bèba, 1103 -kỏcùe, 1597.
pưkù


| KiKifimbòs <br> mbèßà |
| :---: |
| lơgèèmbè |
| kósomà |
| kwitmbừà |
| kupokeeta |
| màtêté |
| kȯsitità |
| kusita |
| kùsiigà |
| kùsiigà |
| kwilijùkila |
| kwixixola |
| kwiixola |
| kwiixoblà |
| küttimbila |
| kwisùmátà |
| kòsừupa |
| kơtưüßà |
| kờúüßá |
| kờưfưlà |
| mpèta |
| Iopalua |
| fpilie |
| kùpya |
| kupyà |


| English <br> rat- (very large, long-tailed) <br> razor <br> read <br> reap, harvest | KiKifmbò-N <br> Пkùtó <br> Iogèèmbe <br> kùsòmà <br> kwiimbèlà |
| :---: | :---: |
| receive <br> reed <br> refuse, say no <br> reject, refuse, dislike | kùpòkè̀̀là <br> màtètè <br> kusiita <br> kòkilwà |
| remain, stay behind * <br> remain, stay <br> remember <br> resemble * <br> resemble (very closely) <br> resemble * <br> rest heavily on, be burdensome rest the cheek on the hand (in brooding mood) | kusiiga <br> kúsiigâ <br> kwijijòkilà <br> kwiixôlà <br> kwiixolà <br> kwiixờà <br> kwiilwà <br> kwiidiima itâma |
| rest, take a holiday <br> return, go back <br> return | kùsíutpá <br> kèshóoxà <br> kushóoxà |
| revive <br> thinoceros <br> rit <br> ripe | küßèémboừkà <br> mpetă <br> tùpßàtù/mbàlừ <br> ipiliè |
| $\begin{aligned} & \text { ripen (vi) * } \\ & \text { ripen (vi) } \end{aligned}$ | köpyà <br> kupya |





| Kikfímbù-N <br> möōngò |
| :---: |
| kölìa, kèlindimà |
| kùtimá |
| kùtima |
| iowé ipauampa |
| njogòôo |
| mudi |
| -Bolite |
| kwilliinga |
| kópilingànià |
| kwiißilingeàià |
| kükoi̇ùnta |
| mútàxàlàatà |
| liinà lyà mảtàkàlààtâ |
| kòki̇mbtiá |
| sadâkà ? |
| múữyû |
| músèngȧsèèngà |
| kwikùtâ |
| kùtogèezzâ |
| küwiila |
| nge, phomi |
| kupala |
| kúkwààngúlà |
| kùsüßà |
| imoózyó |




| No | English | KiKírimbù-N | KìKf́́mbùs | Proto-Bantu (Guthrie) |
| :---: | :---: | :---: | :---: | :---: |
| 84 | search for | kùpùuga | kupúũgà | 366 -cóod- |
| 85 | search diligently | kùpésà | kùpàlisà | 259a -cákùd |
| 738 | seat, stool, chair | kísüùmbì, kfti ? | kítì ?, kigỏdả ? | 1874 túmbi, 1692 -tébè |
| 770 | see | kúwònà | kówònà | 164 -bȯn- |
| 67 | seed | mbèeyù | mbeejyò | 96 -béyú, 211 -bútô |
| 404 | seize | kúdiimà | kȯßààmbà | 1172 -kúăt- |
| 611 | self | mweènė | yeènė | 1970 -yéné |
| 302 | sell | kưgùlyà | kogưlyâ | 876 -gùd- |
| 570 | send | kútùmà, kùlàgililyà | kótòmá | 1831 -tóm- |
| 451 | separate. set apart | ku̇gàßanià |  | 525 -dèk- |
| 450 | separate, leave each other | kollexaánà | kwiilexa | 525 -dèk- |
| 534 | set a trap | kútègà | kótègà | 1698 -leg. |
| 868 | set (of the sun) | kúlòxà | kògwíla | - |
| 971 | settled (be): be in good order | ku̇texảànà | kùnogèlèlyâ | 1702 -leèk- |
| 754 | seven | mpúüngàti | mpüungati | ps $419 x$-púngàté, ps 419y púngàtf |
| 1033 | sew * | kúsumà | kusu̇mà | 1865 -tün-, 378 -con- |
| 589 | sew | kưsúmà | kòsu̇má | 1865 -tum- 378 -con- |
| 135 | sexual intercourse with (have) | kwlinyoma | kwiigònia | 1781 tómb-, 851 -gồn- |
| 691 | shadow, shade | mựütè, müdảxà, münyùmì (human) | kinyúómi | 1492 -pépò |
| 867 | shame, disgrace | nsȯni | nsȯni | 380 -coni |
| 116 | shame | nsôni | nsôni | 380 -cóni |
| 724 | shame, modesty | nsöni | nsȯni | 380 -cóni |
| 388 | sharp (be) | kúvogipà | kükalipà, kußà kixàxa | 978 -kadz(ip) - 1803 -ứ |
| 920 | sharpen | kùnỏólà | kònóólà | 1365 -nòd. |
| 915 | shave | kúsėényà | kúmwà | 1317 -móog. |
| 603 | she, he | nwèené | mweénê | 1173 -ku̇e, 1954 -yè(é) |
| 287 | sheep | П×òlò | n×010 | ps 305 -kȯdò |


| No | English | Kikíímbò-N |
| :---: | :---: | :---: |
| 1009 | shell, cowrie | nsiimbi |
| 822 | shell | - |
| 725 | shield | ngùlà |
| 712 | shin (bone) | múloùùndi |
| 968 | shiver, shudder* | kùtetèmà |
| 528 | shiver | kȯtėtèmá |
| 434 | short | -küpi |
| 430 | shoulder, tip of | - |
| 588 | shoulder | ißegà/máßègà |
| 839 | shout | kúküßá ibùbù |
| 946 | shrivelled (be); wrinkled | kwiikùnyátà |
| 763 | sick | -whisle |
| 870 | sift | kòyoúnga |
| 615 | sing | kwiimbà |
| 3 | singe | kóßaßà |
| 980 | sink, be drowned | kùsápà |
| 170 | sink | kùgàbílà |
| 726 | sister (his)/ (her) brother | iloùnmbù |
| 627 | sit | kwiixalà |
| 753 | six | múxààga |
| 785 | size, measure | ngềò |
| 123 | skin (of person) | ntiilà |
| 124 | skin/rind (of fruit) | ititi |
| 303 | sky | Hounde |
| 865 | slander, accuse falsely, often secretly | kòsòngeélà |
| 470 | slap | kökopa ikoófi |
| 970 | slash | kúputà |


| Kikiimbò-S | Proto-Bantu (Guthrie) |
| :---: | :---: |
| nsita | 42 -bȧmbâ, $\rho s 110$-cimbi |
| ixonjè | - ${ }^{\text {a }}$ |
| ๆgáo ? | 906 -gùbà, 756 -gàbó |
| mútùondt | 1526 -pindí? |
| koutetema | 1726 -tettim-, 1012 -kànk- |
| kùtèténà | 1012 -kảjk-, 1726 -tètim |
| ikupì | 1274 -kupf |
| iBega | 84 -bega |
| ißègà'mäßega | 84 -bega |
| kùkùßá idóólo | - |
| kwilisináásinà | - |
| -wvilite | 677 -đõăd-, 679 -úvaidé |
| kùyúóngà | 969 -jüng(úd)- |
| kwiṫmbà | 2009 -yimb |
| küßäßà | 5 -bab- |
| kùsàpà | 755a -gàbid-, 593 -diàm- |
| kùdòđòmèlá | - |
| ìlóúmbè | 703 -dùmbù |
| kwiixàlà | 2052 -yikad- |
| múxààgả | 1670 -tántàtú |
| àlf mbì | 795 -gèd- |
| ntiilà | 563 -didì 1095 -kóbà 1003 -kándà |
| itiiti, màküumbà | 1003 -kàndà |
| matuunde | 880 -gùdù |
| kùsỏongéélélả | ps 80 -céb- 383 -cong |
| kúkùßà, kùpảatúlà | 1182 -kúb- |
| kùsèmúlà | 1703 -tėm- 321 -cèng- |



き


| No | English |
| :--- | :--- |
| 734 | soul, spinit |
| 331 | sound, cry |
| 64 | space (open) |
| 82 | spark |
| 253 | speak |
| 733 | spear (n) |
| 137 | spend time |
| 1038 | sperm, semen |
| 62 | spider |
| 182 | spint (of dead person) |
| 464 | spirit (disembodied) |
| 683 | spinit (evil) |
| 582 | spit |
| 533 | spittle |
| 601 | split, crack (vt) |
| 951 | spoil, blind (vt) |
| 649 | spoil (a child) |
| 998 | spoil |
| 813 | spoon |
| 5 | spot, speckle |
| $959 a$ | sprain an ankle |
| 141 | spread out (be) |
| 527 | spread |
| 908 | spread abroad, be; become |
| 592 | generally known |
| spread, smear on |  |


| KíKímbò-N múyì | KìKímbù-S móóyó ? |
| :---: | :---: |
| múlito | idóolò |
| lùúmbùga | itàngalalô |
| nsàsè | ensàsì |
| kuteèngà | küügà |
| ikimu̇ | múxúsá |
| kùsúùnsùmúlà | kèsúúpa |
| mùgàzi, mbèèyù yà kỉgỏosha | usèlè |
| nsùmà ßótààntà | itàndàbủú, isumá ßưtààntà |
| mizimủ | mizimú |
| mizimu | ¿рёpó ? , İmúdìmi |
| mizimu | ipèpó? |
| kútyà mátyè | kưtyà mátyè |
| matyè | mátye |
| kòtaàndèla | kùdèmúla |
| kùpófulyà | kưpȯkùlyȧ |
| kusenéxa | kưmúlėxànilyá |
| kóplipya | kùnóóna |
| mútiīxó | mútììxó |
| ißalà | ¡ßàlà |
| kòtegoùlà | kuteèngúxà |
| kúsààmbààlà | kwilijulàiijóla |
| kwàada | kwėalà |
| kùkumùúxà | kùkùmúúxà |
| kóßilà | kúpàxȧ ? |



Proto-Bantu (Guthrie) 1653 -támb-
407x -cúdó, 338 -cimb1661 -támbỏ
ps 117 -cod- ?
i-(uẹ) ued- tsth '-puepa- $\angle t$


705 -dùnd(ik).
2006 -yfm-1-yfmidid 1983 -nyényèdi

197 -búók- ? 284 -cang-, 100

 $\stackrel{\stackrel{\circ}{i}}{i}$


웅

$$
\begin{aligned}
& \text { English } \\
& \text { stone } \\
& \text { store up, collect } \\
& \text { straight (make) } \\
& \text { stranger, guest } \\
& \text { stream, current } \\
& \text { strength, power } \\
& \text { stretch oneself } \\
& \text { strike, knock } \\
& \text { strike with a spear } \\
& \text { string (n) } \\
& \text { strip off (e.g. grains of com) } \\
& \text { strut proudly } \\
& \text { stumble } \\
& \text { stunted (be); be spoilt } \\
& \text { stufter } \\
& \text { suck (the breast) } \\
& \text { suck (vt) } \\
& \text { suffer, bear patiently } \\
& \text { sugar cane } \\
& \text { sun, light } \\
& \text { surround } \\
& \text { swallow } \\
& \text { swear } \\
& \text { sweat } \\
& \text { sweep up, collect in a heap } \\
& \text { (rubbish) }
\end{aligned}
$$







| No | English | KiKiimbè-N |
| :---: | :---: | :---: |
| 987 | think, imagine | kwiigànixà |
| 651 | thisst | nyòótà |
| 740 | thom | liiyà/miinhwà |
| 689 | threaten | kưtiishả, kúxààngà |
| 532 | three | jilátu |
| 115 | thrust into | kùtimà |
| 420 | tick (cattle or dog) | igúba/mágóbà |
| 1034 | tie (fasten) (vt) | kútüùnga |
| 258 | tie up | kútüungà |
| 978 | tingle with excitement | kwiigiliimbùlila |
| 119 | tip, point | nsơonge |
| 741 | tobacco | nsúúlyxó |
| 146 | today | lééló |
| 742 | toe | lyààlà |
| 445 | tomato | nyáánya |
| 105 | tomcat (half-wild) | kìmbúlò |
| 743 | tomorrow | igolo |
| 166 | tongue | túlimindimi |
| 120 | tooth (canine), footh filed to a point | - |
| 267 | tooth | linó/muino |
| 306 | top, peak | kù cháanyà |
| 293 | tortoise | ๆ̧u̇lù |
| 277 | town | ihála |
| 378 | tramp of feet | ךkiindò |
| 270 | travel | kȯyá |
| 540 | tree | mútt |


| KiKímbò-S | Proto-Bantu (Guthrie) |
| :---: | :---: |
| ku̇siimànkảlà, kùlilinkàlà | 772 -gàn- |
| nyȯolà | 2137 -(n)y yotà |
| liiyà | $902^{1 / 2}$ - 7 gùa'- yingù̀à ps 399 -púá |
| kờtisishà ? | 2110 -yógừp- 1008 -kàng1741 -tiin- |
| jitàtù | 1689 tatu |
| kótimà | 375 -com- |
| kupe ? | 1236 -kupa |
| kùtüùnga | 1877 -tung- |
| kotisugga | 1877 -uıng 173 deop- |
| kutėterma | - |
| kó nsóóngé | 387 -conge |
| itòòmbá | 1870 -ừ(u) mb- + 1729 -if ? |
| lèèiơ | 518 -dèedó |
| Iwààlà | $\rho s 360$-nó? |
| nyàànyà | - |
| kìmbúlù | - |
| igóló | 841 -gódó |
| Wulimi | 572y-dimi |
| nsỏóngà mbwà | 387 -cónge |
| liinómiinó | 2073 -yino |
| pà cháányà | 881 -gùdù |
| ikùtü | 1260 -kudu |
| ๆxadà | 818 -gi, 1020 -káayȧ |
| lókiindó, inkkiindó | 1085 -ki(i) ndo |
| kowóúxà | 807 -gend- |
| iptkt | 1728 -15 |



| No | English | Kikírimbù-N |
| :---: | :---: | :---: |
| 538 | tremble, shake (vi) | kotètèmà |
| 566 | trickle away | kúsötula |
| 401 | trunk (of elephant) | múxȯnó gwá njoggù |
| 604 | try | kùgèmà |
| 605 | tsetse-fly | kàgèembe |
| 938 | turn upside down, turn over | kùpî̀ndòlà |
| 174 | tum round | kùpilimyà |
| 711 | tusk, elephant's (middle size) * | - |
| 452 | twin | ipasà/màpasa |
| 185 | twist roll, spin with fingers | kùpèlégà |
| 483 | twist, esp strands | kúpòtà |
| 752 | two | jipili |
| 18 | udder | kißeele, nyóonkélo |
| 945 | uncover, reveal | kúkùndùküla |
| 551 | unripe, half grown | itùindi |
| 994 | unipe, uncooked | mbisi |
| 311 | up, above | kù cháányà, kwiiguólyà |
| 614 | upright | wiimà |
| 446 | urinate/defecate | kùtuundà, kùnia |
| 745 | urine | mátườ ${ }^{\text {di }}$ |
| 569 | use | kưtòmílà |
| 307 | utmost, highest point | kù cháanyá |
| 904 | vapour, gas | mútưtư |
| 380 | vein | músipa ? |
| 276 | village | igùòngùli |
| 692 | virgin (bride), girf | múhàlà, mwâanikè |
| 327 | vision | ndoóti |


| No | English | KiKíimbù-N |
| :---: | :---: | :---: |
| 330 | voice, (thunder) | mùli |
| 224 | vomit | kúlc̀xà |
| 524 | walk (take a) | kügėenda |
| 2693 | waik | kưyà |
| 847 | wall | igèlèe |
| 983 | wam, need, wish | kòpùúga |
| 507 | war | wólógȯ |
| 790 | wart-hog | ngili |
| 860 | wash oneself (after evacuating) | kwiipyàgu̇là, kwiisheentà |
| 127 | wash (hands) | kúxàlápà |
| 128 | wash (clothes) | kúkàánjà |
| 129 | wash, take a bath | kwóoga |
| 322 | water | mijij |
| 959 | wave, let off a trap, remove a spell | kùtogóólà |
| 1017 | we | iiswè |
| 1010 | weak | - |
| 881 | wean a child, give leave, send away | kùpélyà |
| 234 | wear, dress | kùlyàálà |
| 501 | weave, knit | küfümà ? |
| 1015 | weight, mythm | $\beta$ ßutitimbù |
| 210 | well | kisimà ? |
| 56 | wet (get) | kùsápà |
| 919 | what? | kii |
| 469 | which? | kilihè |


| Kikíímbò-s | Proto-8antu (Guthrie) |
| :---: | :---: |
| - | 474 -dàkà, 954 -jơi |
| kùdiíxà | 695 -dúk- |
| kogeéndá | 807 -gend, 820 -gi- |
| kòyá | 806 -gènd- |
| lógèlèlè | 795 -gèd-, 1001 -kànd- |
| kupúćgà | 256 -càk-, 1974 -yènd- |
| alơgo | 184 -bód. 151 -bitá, 1147 . kóndó |
| 7gili | 814 -gidi |
| kwisiingà | 1539 -piágid., 2107 -yo(0)g- |
| kȯsiingà | $\begin{aligned} & \text { ps } 303 \text {-kóc- , } 2107 \text {-yó(ó)g- } \\ & 1186 \text {-kóc- } \end{aligned}$ |
| kouxàánjà | 1001 -kànd- |
| kwóoga | 2107 - y ( $(\mathrm{O}) \mathrm{g}$ - |
| mijij | 937 -ji |
| kòtėgólà | $\begin{aligned} & 1698 \text {-tèg-, ps } 276 \text {-kàkùd- <- } \\ & \text { kág- (990) } \end{aligned}$ |
| swèesswê | 395 -cóè/-cuée, 2099 -yitué |
| - | 528 -dem |
| kôlechà | 526 -dèk- |
| kưlyáalà | 726 -dưád-, 1915 -yàmb- |
| kósúmá | 1861 tưm- |
| Botiombù | 631 -ditó, 1519 -pim- |
| isimà | 1753 -timá, 353 -cimá 1999 -yiji |
| kúsȧpà | 161 -bómb-, 637 -dòb- |
| kintờ ki | 1046 -kí, 1926 -yàni |
| kintù ki | 1498 -pi |



KiKí̈mbö̀-N mútüfi müjúüngù
要 -bt kügoòndá药
 ßò̀ơgi
kwiimà
kwiinyiimà?
mukizma/Gakimà múkiimà/ßakiimà
ndà yà ßülèli mpòlà kujeénga mùlimómilimo kùgóóndà kúminyà kwááyúla mwáaxa igolo




| 88 | wire (brass) |
| :--- | :--- |
| 194 | witchcraft |
| $279 a$ | withhold from |
| 279 | withhold from, abstain |
| 338 | wornan |
| 747 | wornb |
| 812 | word |
| 772 | work as a mason |
| 167 | work (n) |
| 81 | wrap up |
| 344 | wring (clothes) |
| 773 | yawn |
| 593 | year |
| 750 | yesterday |
| 15 | you (sing.) |
| 1018 | you (pl.) |
| 715 | young man |

KiKíímbò－S
yáányù
múlümyáànà
nsèèngélè
雲
English
your(s) (pl. 2nd) person)
youth
$\stackrel{0}{0}$
天둥 侽
Appendix ? 1'homological inventories of Zome 1 .
Appendix 2a. Iowels

Apperndix 2h. Sitops cukt pre-mexalized stops

| Morpheme $\boldsymbol{\sigma}^{-1}$ <br> Lanyuage $\downarrow$ | p | b | mp | mb | 1 | d | nt | nd | c | J | תc | תj | $k$ | \% | $0^{k}$ | Dg |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SiSuumbwa | + | + | + | + | $+$ | ${ }^{+}$ | + | + | $+$ | $+$ | + | $+$ | $+$ | $+$ | + | + |
| KıSukuma | + | $+$ | + | + | $+$ | $+$ | + | + | + | $+$ | $+$ | $+$ | $+$ | $+$ | + | + |
| KıNyamweezi | + | + | + | + | + | + | + | + | + | + | + | + | $+$ | + | + | + |
| KiBende | + | + | + | + | ${ }_{+}^{+}$ | + | $+$ | + | $+$ | $+$ | $+$ | $+$ | $+$ | + + | + | + |
| KInILaamba | + | $+$ | $+$ | $+$ | $+$ | + | + | + | $+$ | $+$ | $+$ | $+$ | $+$ | + + | + | $+$ |
| KIRImi | + | $+$ | $+$ | $+$ | + | $+$ | $+$ | + | $+$ | $+$ | $+$ | + | $+$ | + | + | + |
| KIKIImbu | + | ${ }_{+}^{+}$ | + | + | + | $+$ | $+$ | + | $+$ | $+$ | $+$ | + | $+$ | $+$ | + | + |
| IcrWuungo | + | + | + | + | + | ${ }_{+}^{+}$ | + | + | + | ${ }_{+}^{+}$ | + | + | $+$ | ${ }^{+}+$ | ${ }^{+}$ | + |
| KiiRangi | + | + | + | + | + | $+$ | + | + | $+$ | $+$ | + | $+$ | $+$ | ${ }_{+}^{+}$ | + | + |
| KeeMbuwe | + | + | + | + | + | + | + | + | + | + | + | $+$ | $+$ | + | + |  |

Appenifis 2c: Prtcotives and pre-masalized fricatives

'The phonological status of these phonemes is doubttul, since they are either context-sensitive, as in KIKIImbu ( $\mathrm{x}-\mathrm{k}$ ),
and sometimes they can be in free variation with homorganic stops, i.e, $b-\beta, \alpha-k, \gamma-g$, or they are likely to be loans, as in the
case of KIRImi, where the likely donor might be Southern Cushitic lraqw which has the pharyngeal $/ \mathrm{x} / \mathrm{and} / \gamma /$ opposition.
 slices of pumpkin meat used as a relish during the season when there are no fresh vegetables?










Appendix 3 Dahl's Lav in Zone $F$

| Lexeme s : <br> Language | -tato three | *-tapa 'draw water' | *-yikotsatiated (be)' | *-kuta 'oil' | --kupa bone' | - poku blind person |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SiSiloombo |  |  |  |  |  |  |
| SiYoombe | isatu | kutaha | kw | mafuta | (igufwa) | niuhofu |
| KiLoongo |  |  | - | (mazuta) |  |  |
| KımunaSukuma |  | kodaha | kwiiguta |  | liguha |  |
| GinaNtuzu |  |  | guguta | maguta | iguha | oku |
| Jinakпya | Idato |  | gwiguta |  | ıguha | mboku |
| KıDakama |  |  | kwigota | maguta |  | (muhofu) |
| KiNyanyeembe | dato |  |  | mafuta | iguha | mpofu |
| KiKonoongo | idatu itato | kodaha | kwikuta | maguta |  | muhofu |
| SiGalagaanza | itato |  |  | mafuta | Ifupa | mpofu |
| KiBende | itato | kutaha | kwiikuta | mafuta | ifuha | muhofu |
| KrnaUshoola |  |  | kukikuta |  | kupa |  |
| KInxLaamba | katato | kutepeela | kukikyota | makuta | kyupa | mupoku |
| Kinlhaanzu | itaato |  | kikota |  | ikupa | mpoku |
| GIRwana |  | oRafa | kikora | makuRa | ikufa | mufoku |
| Giani |  | ORafa | ixuRa | maxuRa | iyufa | muфoku |
| YinyaMunyinanyi | taatu | utafa | kikoRa | makuta | Ikuфа | mupoku |
| Krkumbo N |  |  |  |  |  |  |
| KıKambo S | jitatu | kotapa | kwikuta | makuta | ikupa | mpofu |
| rcrWoungo | ztato | kutepa | kwilkota | mafuuta | Ifupa | טcIpofu |
| KilRangi | itato | kutaha | kwikuta | makuta | ikufa | muhoku |
| KeeMbuwe | saato | otafa | oikota | makuta | kufa | - |

Appendix 3. Dahis in Zone F

| Lexeme ${ }^{a}$ <br> Language . | "-pute abcess. boil | "-tok- abuse. insult | *-yrtik'answer a call' | - -pik'amive' | *-tooke 'banana fruit' |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SiSiloombo |  | kutuka | - |  |  |
| Siroombe | ihute | kutuka | - | kuhika | tooke |
| Kiloongo |  | - | - |  |  |
| KımunaSukuma | ißute | kudukia | kwidika | kujika | ndooke |
| GinaNtuzu | I Bute |  | godrka | gusika | notooke |
| JinaKrya | ißute | godokila | gwidika | gufiga | Idooke |
| KiDakama |  | kudukana | gwïdıka | kuJika |  |
| KiN yanyeembe | - |  | - | kofika | idooke |
| KiKonoongo | ipute | kotokula | - | kusika |  |
| SiGalagaanza |  | kutukızya | - | kufika |  |
| KiBende | ihuute | kutuka | - | kufika |  |
| KinaUshoola |  | kutukana | koyrtika |  |  |
| KrnxLaamba |  | kutukala | kuyntika | kopika |  |
| Kinthaanzu | ipute | kutukiana | kiittka |  |  |
| GiRwana |  | uRokana |  | - |  |
| Giahi | - | toxana | iRika |  |  |
| YinyaMunyinanyi | ipuRe | utukana | gitrka | ofika |  |
| $\begin{aligned} & \text { KıKımbe } N \\ & \text { KiKımbo } S \end{aligned}$ | ipute | kutuxana | kwitixa | kupixa | idooke |
| ICIWuungu | - | kutukana | ukwrtıkila | kusuka |  |
| KilRangi | - | kutukra | kwintika | kufika | - |
| KeeMbuwe | ............ | otokana | weiteka | ofika | - |


| Appendix 3. Dahi's in Zone F |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lexeme ar <br> Language | -kaate 'bread' | *-tako 'buttock' | -copa 'calabash' | $\begin{array}{r} \text { "-capo } \\ \text { caiabash' } \end{array}$ | *-pepo 'cold' | -teek'cook' |
| SiSiloombo | nkaate | - | - | sisyaabo |  |  |
| SiYoombe |  | itako | - | sisaabo | mpeno | ut |
| Kiloongo |  | - | - | cisaaßo | - |  |
| KımunaSukuma |  |  | - | - |  |  |
| GinaNtuzu | ngaat : | dak | - | gisaaßo | mbeho |  |
| JinaKırya |  | ıdako | soha | jisaaßo |  |  |
| KiDakama | mugaate |  | nsuha | - |  |  |
| KiNyanyeembe | mukaate | idako | - | - | mbeno |  |
| KiKonoongo | mugaate |  | $\bullet$ | - |  | kuteeka |
| SiGalagaanza | mukaate | itako | - | - |  |  |
| Kibende | mukaate | ifako | - |  | трено | kuteeka |
| KınaUshoola |  | tako | - | kısaao |  |  |
| KInILaamba | mukaate | tyako | - |  | преро |  |
| Kınlhaanzu |  | - |  | - |  |  |
| GIRwana | mukaate | iRaaxo |  |  | - |  |
| Giahi | mukate | iRayo | ఫ̧ofa | - | трефо | uRexa |
| YinyaMunyinanyi | muxate | IRako | по0фа | $\checkmark$ | mреефо |  |
| KıKırımbo N | mukaate | Iax |  |  |  |  |
| KıKımbo S | muxate | Itaxo |  | - | mpepo | kuteexa |
| ICIVVoungo | 0mukaate | itako | - | - | Imbepo | kuteeka |
| KilRangi | mukaate | taako | kısuwa | - | mpeho |  |
| KeeMbuwe | mokate | tako | - | - | mpefo | otereka |


| Appendix 3. Dahi's in Zone F |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Lexemess } \\ & \text { Language. } \end{aligned}$ | *-koko crust' | *-knti 'darkness' | -tiku day | --ciko <br> day | -keepdiminish. grow less' | *-kutu ear' |
| SiSiloombo |  | - |  | - | - |  |
| SiYoombe | ך̧okotwa | giti | lusiku | - | - |  |
| Kiloongo | eenkogoto | - | - | - | kukeha |  |
| KımunaSukurna | ßogokwa |  | lofiku | - | kugeeha |  |
| GinaNtuzu |  | guiti | lusiko | - |  | gutu |
| Jinakrrya | logukolu |  | lofigo | - | gogecha |  |
| KıDakama | - |  | lujiko | - | - |  |
| KiNyanyeembe | Пkokoto | gîti | losike | - | - |  |
| KiKonoongo | makokolo |  | losiku | - | - |  |
| SiGalagaanza | - | - | losiku | - | - |  |
| Kibende | - | - | - | - | - |  |
| KinaUshoola | \#koko | - | - | - |  |  |
| KInuLaamba | kyoko | - | - | - | kukeepa | $\stackrel{\square}{1}$ |
| Kinthaanzu | lukoko | kiti | - | Ithike | - |  |
| GIRwana |  |  | iRiku | - | keefa |  |
| Giahi | maxoxo | kiRi | ifixe | - | oxefa | - |
| YinyaMunyiranyi | tkoko | kiti | \|Riku | - | keepa | - |
| KIKımbo N | Box0xo |  | - |  | - | - |
| K Kırmbo S |  | kiti | - | Iusiku | - | - |
| Icrwuongo | amakoko | - | - | lusiku | kucepa | - |
| KilRangi | ukoko | - | - | siku | - | koto |
| KeeMbuwe | lokooko | . | $\cdots$ | nsiko | okeefa | KUtJ |

## Appendix 3. Dahl's in Zone F

| Lexeme $\quad$ 子 <br> Language | - kokuda 'elbow' | *-kope 'eyelash' | *-kuoku 'grandfather' | *-koopi 'hand (flat of) | *-kata headpad' |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SiSiloombo | ikookola |  | gouku |  |  |
| SiYoombe |  | †kohe |  | ikoofi | jkata |
| KiLoongo | lukookoola | enkohe | guuku |  | engata : |
| KımunaSukuma |  |  |  | - |  |
| GinaNtuzu | igookoola | ngohe | guoku | - | ngata |
| JinaKırya |  |  |  | - |  |
| KrDakama | - | ngohe |  | - | 7gata |
| KiNyanyeembe | - |  | gouku | ikofi |  |
| KiKonoongo | kakokoola | ngohe |  |  | Økata |
| SiGalagaanza | kakoonkola |  | guk | ikoofi | ngata |
| KiBende | - | ŋkohe | kuuku | - | Пkata |
| KinaUshoola | kİkokoola | - |  | koopi |  |
| KınrLaamba | - | - | kuoku | kyoopi | 7kata |
| Kinlhaanzu | kinkokoola | $\eta$ kopi | - | Ikopi |  |
| GrRwana | ixoxoa | - | kuku | - | ๆkaRa |
| Giahi | grhohoa | †kofyo | xuxu | ixofi | 7xaRa |
| YinyaMunyinanyi | grkokoa | ukoфe | kouku | ikoфi | 7 kaRa |
| Krkirmbo N | kin×oxoola | пxope |  | ixoofi | \%xata |
| Kikimbos | kixoxoola | - | kuoko | - | 7kata |
| rcavouongo | - | - | - | - | Ingata |
| KirRangi | kikokoola | - | - | ikoofi | $\eta \mathrm{kata}$ |
| KeeMbuwe | kıkokolo | ........... | - | koofi | Пkata |

Appendix 3. Daht's in Zone F

| Lexeme $:$ : <br> Language | *-koko hen' | - - krko 'hen' | *-pic- <br> hide | *-piti hyena | "-pa/mo-kat1 in the middle of | *-cek- <br> "laugh |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SiSiloombo |  | - | kubisa |  | hakati |  |
| SiYoombe | ग̧ako | - | kußisa | nis | hakats | kuseka |
| Kiloongo | eenkoko | - | - | empisi | hagati |  |
| KımunaSukuma |  | - | kußisa |  |  | kuseka |
| GinaNtuzu | ngoko |  |  | mbiti | hagatr | goseka |
| JinaKrrya |  | - | gopisa |  |  | gosega |
| KiDakama | ngoko | - |  |  | hagats |  |
| KiNyanyeembe |  | - |  | mbiti | hakatu | kuseka |
| KiKonoongo | 7koko | - | koßfisa |  | hagatı |  |
| SiGalagaanza |  | - |  | mfisi | hakat |  |
| KiBende | inkoko | - | kofisa | - | nakatı | kuseka |
| KinaUshoola |  |  |  | mpiti |  | kujeeka |
| KiniLaamba | - | Øjkuko |  | - | pakatı | kuseka |
| Kinlhaanzu | - |  | kupiha | mpiti |  | kuheka |
| GIRwana | - | 7koko | fiha | mpiRi |  |  |
| Giahi |  | nxuku | ofina | mpiri | muxaRi | cheka |
| YInyaMunyinanyi | - | пkoko | ubiha | mpiti |  |  |
| KiKıimbo N | - |  | kußisa |  |  |  |
| KIKırmbu S | - | Okoko |  | mpit! | paxatu | kusexa |
| 1cIVVoungo | - | Igokes | kupisa | - | pakasi | kuseka |
| KilRargi | - | 7koko | kovisa | mpici | katr | kuseka |
| KeeMbuwe |  | 7koko | visa | mpiti | katr | oseka |


| Lexeme ra Language . | *-pooplight (ad) | *-buope <br> ${ }^{\prime}$ lung(s)' | "tope 'mud' | *-tiku night | *-prt 'pass | $\begin{gathered} \text {-panto } \\ \text { place }(n) \text { ' } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SiSiloombo | - puape | - | - | - |  |  |
| SiYoombe | -poupe | - | - | - | kunita | haantu |
| KiLoongo | -puupe | - | - | - | - |  |
| KımunaSukuma |  | maboupo | - | Bojiko | kußrta |  |
| GrnaNtuzu | -boupu | - | - | Boziko |  | haaño |
| Jinakrrya |  | maboupe | - | Pojiko | goprta |  |
| KIDakama |  | mabuope | - | Buziko |  | haane |
| KiNyanyeembe | -bouhu | - | matope | oziko | kußita | haano |
| KiKonocngo |  |  |  | Boziko |  | haantu |
| SiGalagaanza | -boune | ароир | - | Bofuku |  | hante |
| KiBende | - | - | matope | bufuku | kuhita | haantu |
| KınaUshoola |  |  |  |  |  |  |
| KinrLaamba | - | mapoupo | - | otiko | - |  |
| Kınihaanzu | - | mapopu | - |  | kuhta |  |
| GIRwana | -fufu | mafoutu | maRofe |  | - |  |
| Giahi | - | mafofu | maRope | uRixu | - | faantu |
| YinyaMunyinanyi | -poufu | maфоф0 | itofe |  | - |  |
| KIKrrmbo N | -bouhu |  |  |  | - |  |
| KiKirmbu S | - | mapoopo | intope | $\beta$ Botiku | - | paantu |
| ICIWoungo | imboupu | amapoupo | - | osike | kupirta | apaandu |
| KilRangi | - | mahuuhu | itohe | ocike | - | haantu |
| KeeMbuwe |  | mafoufo | matofe | otiku | - | faanto ** |


| Lexeme k <br> Language . | -cato/catu python' | *-tiko rainy season' | -kocue 'rat' | *-kec'reap | "-pokid'receive' | -tete 'reed' |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SiSiloombo | nsato |  | 万ु<oso | - | kupokeela |  |
| SiYoombe |  | - |  | kukesa | - | matete |
| KiLoongo | eensato | . | - | kugesa | - | madete |
| KırmunaSukuma | sato | kidiko | ngoso | kugesa |  | madete |
| GinaNtuzu |  | gidiku | - | gogesa | gubokeela |  |
| Jinakirya | sado | jidiku | 7goso |  |  |  |
| KıDakama | isato | kidiku | ngoso | - | kubokeela | madete |
| KiNyanyeembe | sato |  | nkoso | - | kupokeela | madete |
| KiKonoongo | nsato |  |  | - |  |  |
| SiGalagaanza |  | sidiku |  | - |  | matete |
| KiBende | nsato | - | ikoso | - | kupokeela | matete |
| KınaUshoola | nsatu | kitiku | Пkoso | - | - | matete |
| KıniLaamba | nsato | katiku | - | - | kopokeela |  |
| Kınlhaanzu |  | kitiku | - | - |  | matete |
| GIRwana | - | - | - | - |  | matete |
| Giahi | nsaaRo | giRixu | - | - | ufokea |  |
| YinyaMunyijanyi | SaRu | - | nkoho | - | 0¢okea |  |
| KIKİmber N | nsato | kitiko | 7koso | - | kupokeela | matete |
| KıKumber S |  |  | - | - | kupokela |  |
| IcrWoungo | rsatu | crsiku | - | - | kopokela | matete |
| KilRangi | saatu | kiciko | - | - | kuhokera | matete |
| KeeMbuwe | nsato | ketiku | - | - | isokera? | vitete |


| Appendix 3. Dahl's in Zone F |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Lexeme <br> Language . | -kuc- 'rub' | -pepo 'shadow. shade' | *tetim'shiver' | *-kupi 'short' |
| SiSiloornbo | kukuusa | - | - | nuht? |
| Siroombe |  | - | - | niiht? |
| KiLoongo |  | mußeho | - | -gufu |
| KımunaSukuma | - | mbeho | godetema | -guhr |
| GinaNtuzu | - |  |  |  |
| JinaKırya | goguusa |  |  |  |
| KIDakama | - | - | kudetema | -guhr |
| KiNyanyeembe | - | - | kuteterna |  |
| KiKonoongo | - | - |  |  |
| SiGalagaanza | - | - |  |  |
| KiBende - - - kutetema |  |  |  |  |
| KınaUshoola | - | - | - | -kupr |
| KiniLaamba | - | - | - |  |
| Kinlhaanzu | - | - | - |  |
| GIRwana | - | mpefo | - | -kufi |
| Giahi | - | mpeфо | - |  |
| YrnyaMunyinanyi | - |  | - | -kupr |
| KıKırmbo N | - | - | kuteterna | -kupr |
| Kikumbo S | - | - |  |  |
| ICIWounge | kukuusa | paampepo | kutetema | inipI |
| KilRangi | - | mpeho | kutetema | -kufil |
| KeeMbuwe | - | mofefo | kutetema | -kufe |


| Lexeme ${ }^{r}$ <br> Language. | "-poku 'spoil. blind' | - yiko 'spoon' | -caka "thicket, bush' |
| :---: | :---: | :---: | :---: |
| SiSiloombo | kuhofuzya | mwiinko |  |
| SiYoombe | kuhofusya |  |  |
| KiLoongo | kuhofula |  | isaka |
| KımunaSukuma | kußokuja | nam@̣o | kasaka |
| GinaNtuzu | gubokuja | nduriho | isaka |
| JinaKirya |  | ndinno | Isaga |
| KıDakama | kuhofuja | mudrno |  |
| KiNyanyeembe | kopofuzya | mutiinko | isaka |
| KiKonoongo | kuhofusya |  | kasaka |
| SiGalagaanza | kupofula | mutrinko |  |
| KiBende | kupofusya | mwinko |  |
| KınaUshoola | kupokulya | mutanko |  |
| KiniLaamba |  | kitrinko | jaka |
| Kinlhaanzu |  | mutrinko | Thaka |
| GIRwana | фоkua | gIRenko | ganaka |
| Giahi | фoxua |  |  |
| YınyaMunyinanyi | uhokuya | grRıjko |  |
| KıKıImbor N | kopofulya | mutionko | kasaxa |
| Kikimmbes $\$$ | kupokulya | mutrinxo |  |
| ICIWoungo | kopofuja | 0ntringo | isaka |
| KilRangi | kohukurya | mutzko | isaka |
| KeeMbuwe |  | mutiko | - |


| Lexeme $=$ <br> Language | '-kupa 'lick' | --paca twin' | *-pot- twist strands' | *-реро 'wind' | "-petwinnow' |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SiSiloombo |  |  |  | - |  |
| siYoombe | Пkuha | mahasa | kupota | - |  |
| KiLoongo | - |  |  | - |  |
| KımunaSukuma | - |  | - | - | - |
| Ginantuzu | - | maßasa | - |  | ¢ |
| JinaKırya | - |  | gubota |  | gobeeta |
| KıDakama | - | maßasa | - | - | kubeeta |
| KiNyanyeembe | - | mapasa | - | - |  |
| KiKonoongo | - | maßasa | - | mbeho | kopeeta |
| SiGalagaanza | İךkupa | mapasa | - | mbeho |  |
| KiBende | - | mahasa | - | - | kupeepeeta |
| KinaUshoola |  | - | kupotya | - |  |
| KrruLaamba | п¢kopa | - | kupota | - | kupeeta |
| Kınlhaanzu |  | - | kupotya | - |  |
| GIRwana | nkufa |  | - | ufefo | fefera |
| Giahi | ๆxufa | mataha | - | vfefo |  |
| YinyaMunyinanyi | Пк<фа | maфаһа | - | mpeeфо | - |
| Krknmbor |  |  |  |  |  |
| KıKımbo S | kupe? | mapasa | kupota | треро | kupeeta |
| tcrVvoungo | nngope | embasa | - | - | kupeeta |
| KilRangi | ๆkufa | maasa | kufota | mpeho | - |
| KeeMbuwe | Tkoofa | mabasa | fota | mpefo | + |


Appendix +. D.166, $1: 23$, E/22e, $1 \% 10$

| Kitóongwè KiBende |
| :---: |
| iindà |
| -óónse |
| küßókó |
| ifuùndú' matuundu: |
| müyoòngó |
| ibi |
| - |
| inyònyi kảnyónyi |
| kitetáa |
| málásó |
| ifưhà'mafưhá |
| mabeélé |
| mwâáná |
| iku̇úsi/màkuuusi |
| mpéhó |
| kwilisa |
| kütèèkà |
| -fititié, -fité <kủfità |
| isüaba |
| kutwa |


| No | Language variety * PB and Gloss | S/N | GiHa (DJ66) | SiSuùmbwà SiSilòombó | SiSǔùmbwa SiYóómbè | KiLoöngo | Ruнyoza (EJ22e) | KiToongwe KiBèndè |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 60 | dog *-bua | 030 | imbwa | mbwá | mbwá | eémbwa | embwa | iimbwa |
| 448 | drink (v)**-nu- | 083 | ukunywa | kùnwá | kànwà | kunywà | kunywa | kùnywá |
| 563 | ear *-toi, -kuto | 048 | uqutw | kưtwi | kutwi | kutwi | okutwi | itwi |
| 156 | eat *-dt- | 084 | ukudya | külyá | kùlyá | kulyà | kulya | kuulya |
| 273 | egg *-gI | 039 | igi | gi/màgi | igi/màgi | :iyááyi/máyá áyl | eihuli | ijif/maji |
| 620 | eye *-yico | 049 | idyiiso | liinsó/màasyo | Hiinsó/miinsó | Jliinsò/mèèns O | eliisho | linsó/méénsó |
| 652 | feather *-yoya | 042 | ugwoya | mazozza | mazooza | Bwooya | ebishanda | mảfuumbú inyèlé |
| 323 | fingernail *-jada | 054 | uluzaala | lyàalá | lyàalá | Ilyààà/maâla | empambo | Jüsàlá/nsâa |
| 474 | fire *-yoto, -drdo | 070 | umulilo | mulilo | mùililo | müfilò | omuliro | múlilò/mililọ |
| !126 | fish **comba, -cul | 028 | inswi | mowi, insamààki ? | mfwi | eemfwi | emfuru | iséémbé/màséémb é |
| 1028 | fly (vi) *-pap-, -guduk- | 093 | -quluka | ku̇gülüka | kưpülüka | kügülùka | kuharara | kùyưlùka |
| 449 | give *.pa, -yink | 100 | -ha | kùhá | kùhá, kưfurnya | kưhà | kuha | küha |
| -269 | go -gi- -yend- | 094. | -genda | kuzzyà | kùzyà | kuı̀èenda | kugenda | kuja |
| 758 | good *-yija | 020 | -iza | mfụlá | insoga | mazimá | -rungi | nsògá |
| 409 | great big powerful *-kudo | 014 | -kulu | mùkùtó | nkulü | Inaango | -haygo | -kulu |
| \%702 | nair ${ }^{-}$-yutdt -yuede | 045 | uluzwili | mùsàsì | mu̇sàsi | isooke | eishoke | nyele |
| 603 | he, she *-koe, -ye(e) | 003 | wene/nyene | awene | àwe | wenyéne | wenene | uyo yóyoli |
| -356 | head -toe | 046 | umutwe | mùtwé | mütwé | mútwe | omutwe | mutwermitwé |
| \%623 | hear *-yigu- -teg- | 088. | -umva | kwimva | kwooomuwa | kühútilà | kuhulira | kühùlika |
| 543 | heart *kodo -tıma | 047 | cumutima | mwizo | mwilzo | müganyà | omwoyo | mwèèoolmyèèyò |
| 807 | horn, ivory *-pembe | 040 | hembe | hèèmbè | iheembe | ihéémbe | eihembe | Theembé lya nsoofú |
| 1016 | $1{ }^{\text {a }}$-ne | 001 | je (we) | öne | òné | inyè | inye | uunè |
| \%218 | kill *-yit -bud(ag)- | 092. | -ica | kwilitá | kwita | Kwwita | Kwita | kwihaàya |
| $\begin{aligned} & 348 \\ & \hline \end{aligned}$ | knee *-dui, -du | 056 | ivi | sivi | sivwi | chizwi/mázw <br> I | okujwi | jiùuggó |


| No | Language variety PB and Gloss: | S/N | GiHa (DJ66) | SiSùùmbwà SiSiloombó | SiSủủmbwà SiYóómbè | KiLoóngó | RuHyoza $(E J 22 e)$ | KiTóóngwè KiBèndè |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 626 | know "-man(i). | 089 | -menya | kùmanià | Kuımania | jkùmànyȧ | kumanya | kurmànyà |
| $1025$ | leaf *-yani | 034 | $i \beta a \beta i$ | màtùutú |  | ¡аßi/maßaß ! | ekibabi | lyȧănyi/maàny |
| 310 | leg, foot *-godo | 055 | Kuguku | kkủgülù/màgùlù | kùgülù/màgülù | kùgülù/mảgù la | Okuguru | küyưlü'máyùtù |
| 1024 | liver -tima | 062 | goitiku | itimá | tima | itima | omwirima | itimá |
| 144 | longhall -deepu, -ladi -de | 016 | -leshe | buteele | lleelele | ilieelè | -la | Ileèhé |
| 1023 | louse *-nyumba | 031 | enda | inda | nda/ida | eenda | enda | iindá |
| \%226 | male, man, husband *-koci | 024 | umugaßo | igòȯsyá | igónsyá, múgỏósyá | iséézà/màse èzà | omushalja | ingoosi |
| 793. | many *-yingi | 011 | insti | - ingki | -iinki | nyuingi | -ing? | -iingi |
| -596. | meat *-(n)yama | 038 | inyama | nàmà | nàmà | èényàma | nyama | anyama |
| 1030 | milk *-beede | 082 | amata | màbėélê | màpèetè | àmátè | amata | maßéele |
| \%716 | moon *-yedi | 064 | ukweezi | kweezi | kweezzi | kweèzi | omwezi | mwéensi |
| \%717 | mountain *-godo - dundu | 076 | umusozi | mùgàlà | mügala luggülu | Baànga | jeibanga | musoosi/misosi |
| 1026 | mouth *-domo | 051 | umunwa | müloomo | múlomo | munwà | munwa | múlömó/milomó |
| \%281 | name *-yina | 080 | izina | iziina | izin! | iziina | eibara | isioná |
| +379 | neck *-ki(i) g go | 059 | izosi | nkiingó | nkiingo | bicha | ebikya, ygoto | jkosi/màkosis |
| !962 | new *-pia | 019 | -shaasha | nyhaáhyà | nyhyȧáhyà, ihyááhyà | ènyhyahyà | hya | nyhyá |
| 1718 | night *-tiku | 078 | jolo | bwilié | wille | chilo | ekiro | bufükú |
| 484 | nose *-puda -judv, -y y do | 050 | izuulu | niundó | niindo | enyyindó | enyindo | inyuindó |
| 435 | oil *-kuta | 081 | amavuta | mafúta | mafuta | mazuta | arnajuta | máfuta |
| 410 | old -kudu | 018 | -zehe | ndààla | :làálà | -ȧȧ kàte | -kulu | lya kàle |
| 440 | one *-mo | 012 | mwe | imwi | iimmi | imwe. <br> kàmwé | emo | imwi |
| 325 | path *-jda | 075 | inzila | nzilà | nzilà | munaanda | omuhanda | nsila |
| 558 | person *-ntu | 027 | umuntu....... | múùntụ | mu̇üntù | müuntư | omuntu | müüntù |


| No | Language variety PB and Gloss | S/N | GiHa (DJ66) | SiSúùmbwà SiSilòombo | SiSưùmbwa SiYoòmbé | KiLoóngó | Rulyyoza (EJ22e) | KiToongwè KiBèndè |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 76 | rain (n) *-buda | 067 | amvula | mvüla | Imvúlá | eenzula | enjura | (i)mfülá |
| 169 | root *-di | 035 | umuzi | muzi | musi | muzi | omuzi | musisi/misisi |
| ¢95 | sand *-canga | 073 | umushenyi/um usenga | musèenga | múséenga | músèènga | omushenye | mùsínsí/misiónsí |
| 251 | say * -boid- | 099 | -vuga | kübwita | kưwilla | kưgàambilla | gamba | kuubálilia |
| 1770 | see *-bon- | 087 | flona | kuußooná | kùßòná | kùlèeßa | kubona | kuulòlà |
| 67 | seed --beyo, -buto | 033 | imbuto | mbutó, mbegú | mbutó, Botùùngà | mbißó | empambo | mbuto |
| 434 | short **upı | 017 | -qufi | nilht | nilhi | -gùfu | qufi | intófú |
| 615 | sing *-yrmb- | 098 | -lilimba | kwìmbá | kwì̀mbá | kùzina | -hooya | kwimba |
| 627 | sit *-yikad. | 097 | -icala | kwiikàlisyà | kwilkàlisyà | kwilikàlisà | kushuntama | kwiikàlà |
| !123 | skin *-koba, -kanda, didr? | 037 | ulushaato | indili | ndili | ikȯßà | oruhu | ikóbà/màkóbà |
| !136 | sleep (vi)*-daad-, gon- | 090 | -humila | kugòná | kütiindita | kúlyamà | kunagira | kùyōnà, küláálà tùlo |
| 1021 | small *-niini | 015 | -toyi | กdo | ndó | Iké | -ke | nse, -se |
| :629 | smoke "-yoki | 069 | umwosi | lyoonsi | lyȯònsi | mùhilinkà | omwika | lyoóns! |
| 69 | soil - dongo | 072 | iBivu | Buloònkó | fuloónko | itakà | eitaka | builóóngò |
| 1029 | stand *-y rm(rdrd)- | 096 | -hagalala | kwilmilila | kwîmì̀ilia | kweemèleta | kwemeerera | Kwiimilita |
| \%735 | star *-tondua, -yo(n)ti | 065 | inyoota | nsóóndá | nsóőnda | ensóonde | enyanyiinyi | lưtáñgwà/ntáangw: a |
| 61 | stone *-bue | 074 | Buye | ißàalé | Bảalè | QBáálérmàßả álẻ | eibaale | ißwè/màbwè |
| -333 | Sun *-joba | 063 | izuußa | izyóoßá | izyooba | izooßà | eizooba | isyơóßa/masyoúóß a |
| \%360 | tail "-kıda | 041 | umulizzo | músilà | músila | muchila | omukira | musila/misila |
| 1020 | that *-da/e -dta, VCVo | 009 | -dya | bbyd, èyó | 1yó. | elyó | -0. | -lyèlèli |
| 554 | they *-bo | 006 | \{ene | àßé | aße | Sonyene | boonene | Beené |


| No | Language variety PB and Gloss | S／N | GGiHa（DJ66） | SiSưumbwà SiSilóómbó | SiSúùmbwà SiYoómbé | KiLoóngó | Rulyyoza $(E J 22 e)$ | KiTóongwe Kisièndè |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 166 | tongue＂－dimi | 053 | ululimyi | Julimi | löltimi | diulimi／èèndi mi | orulimi | lulimi／ndimi |
| 267 | tooth＊－yino | 052 | idyiinyo | Jinóminó | Jlinó／minó | liino／méeno | eliino | liinó／ménó |
| 540 | tree＊－tr | 032 | igiti | múti | mùti | mutí | omuti | siti／fit |
| 752 | two＊－brdt | 013 | －pili | Tpili | i阝iili | $1 \beta$ ili | ibin | ¢ilil |
| －322 | water－ j 1 | 066 | amaazi | iminzi | iminzi | mìnzi | amaizi | màànsi |
| 1017 | we－cue，－cue－yitue | 004 | twe（bwe） | ifwe | iffe | Ichwe | iowe | uutwe |
| \％19 | what－－kı | 007 | 3iki | Biindé | Biindé，essi | chíha | －ki | nisi |
| ：610 | white＊－yedu | 023 | －ela | yèpé | lyeépe | kwèèlà | kwera | －aápe |
| \％18 | who＊－nani | 008 | inde | éndè | ende | Oohà | owa | gànyi |
| －339 | woman，wife＊－ke kadi | 025 | umugolegole | mukitima | mükazi，müké | mükázi | omukazi | mukasi |
| 15 | you（sq）（thou）－be | 002 | we（we） | 阳 | oßé | jwe | iwe | uügwe |
| 1018： | you（pl）（ye）＂－mue－nue | 005 | mwe（mwe） | imwé | imwé | limwe | Inywe | цumaxe |

Appendix t．Lexiconsatisilics 100 word－list：$(i+2 d,(i / 1,123$

| No | Language vaniety PB and Gloss | $\mathrm{S} / \mathrm{N}$ | KiSwahili （KiSanifu） | CiGogo | KímùnàSúkúmà | Jinakiliyà | Gìnàntuzzù |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 133 | abdomen stomach＊－da | 058 | tumbo | nda | ndà nhùumbi | Ida，qhuumbi | nhuùmbì |
| ：926 | all＊－（n）ce，yona | 010 | －ote | －ose | pyè | pyé，－óósè | －ooossê |
| 5 | arm，hand＊－kono－boko | 057 | mkono | muwoko | nkonó | nkono | nkono |
| －337 | ashes＊＊bu | 071 | majivu | ivu | màßă | ！阝ü／mapù | i阝u／maßu |
| －297 | back（ n ）${ }^{\text {－}}$ gongo | 060 | imgongo | mugongo | ๆgóngò | ingóỏngò | ngóóngo |
| \％7 | bad＊－br | 021 | －baya | －bi | － $\mathrm{Bi}^{\text {i }}$ | － 31 | －àà $\beta$ ouß |
| 1022 | bark＊－koba | 036 | gome | ibada | iguola igaánba | igoula | inàangó |
| 811 | bird＊－yoni，－nyoni，－dege | 029 | ndege，nyuni | ndeje | nòni | noni | noni |


| No | Language variety PB and Gloss | S/N | KiSwahili <br> (KiSanifu) | CiGogo | Kimunas | JinaKı̇ıyá | GinaNtuzu |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 125 | bite - -dum- | 085 | -uma | -luma | -lüna | goulüma | ggùluama |
| \%669 | blood *-gadi, ( M ) yinga | 043 | damu | sakami | miniingá | miniingà | míniinga |
| 433 | bone *-kupa | 044 | imfupa | fupa | Jigùhà | 1gühámagüha | igüha |
| 17 | breast *-beede | 061 | maziwa | itombo | indưtü, lònóónô, :mbèèlê | lỏßėelé, lùnóónhó | กóȯกô |
| $679$ | child, infant *-yana, -yanake | 026 | mtoto, mwana | mwana | nweèlélé, nigini inwàànà | nuwàànả, nìgìnf. nwèèééle | Inwàànà, nìginì, nwèelééè |
| 305 | cloud *-dunde | 068 | mawingu | ivunde | Huunde | fluunde'maluunde | liuunde |
| 465 | cold *-pepo | 077 | baridi | mbeho | lònyili, mbèho | mbèhó | mbehò |
| 624 | come *-yij- | 095 | -ja | -za | -iizà | gwizà | gùzà |
| 471 | cook (vt)*-dug-teek | 086 | -pika | -vua/-teleka | -zùgà | gùzùga | guzuga |
| 622 | dark black *-yidu, -pipi? | 022 | eusi <-yelu pi | -titu | yaàpi | giiti -pi | -pi |
| 682 | daytime *-cr. -joba | 079 | mchana | misi | iimi | hitmi | Iitmi |
| 425 | die *-ki- ku- | 091 | -fa | -fwa | -chà | gùcá/cia | gùchà |
| 60 | dog *-bua | 030 | mbwa | mbwa | mva [mva] | mva /mva | mva lmval |
| 448 | drink (vt)*-nu- | 083 | -nywa | -rpa | กna | gónwa | gùnwa |
| :563 | ear *-tui -kotu | 048 | sikio | ikutu | gơtù | gùtö | guto |
| 156 | eat ${ }^{-}$di- | 084 | -1a | -lya | -lyà | gùlyallià | gòlyà |
| 273 | eg9 *.9n | 039 | yai/mayai | iqankna | igi | 19i/magi | igi/magì |
| 620 | eye *-yico | 049 | jicho/macho | liso | Bilisȯ/milisó | tiisò'miso | Liso |
| 652 | feather ${ }^{\text {- - - }}$ - ${ }^{\text {a }}$ | 042 | manyoya | iweha | Poóya | ßóco ${ }^{\text {a }}$ | ßodyà |
| 323 | fingernail *-jada | 054 | ukucha | lukombe | lyààtà | luààlà/lwàala/'njàala | lyàala |
| 474 | fire *-yoto, -dido | 070 | moto | moto | mototo | mótô | móotò |
| 126 | fish ${ }^{\text {* }}$-comba -cui | 028 | samaki | somba | ndiilo | shi | shì ndiiloo |
| 1028 | fly (vi) "-pap-s guduk | 093 | -ruka | -quluka | -làlà | gülàla | gưlala |
| 449 | give *-pa, -yink | 100 | -pa | -pela | -iinhà | gwinhâ | punhha |
| \%269 | go *-gi. -yend- | 094 | -enda | - bita | -jà | gùjà/gujià | qừà |
| \%58 | good *-yija | 020 | -zuri | -swanu | yà wilzà | sỏgă, -izà | nsȯgà -àa ßuzzá |


| No | Language variety PB and Gloss | S/N | KiSwahili (KiSanifu) | CiGogo | KìmúnàSukumà | Jinakìryâ | Gìnầ̂uzzù |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 962 | new *-pra | 019 | -pya | -hya | mhya | -pyà | mhya |
| 718 | night - tiku | 078 | usiku | cilo | Bojiko | Bojikó | Bozziko |
| 484 | nose * puda, jodo, -yıdo | 050 | pua | mptula | yưolo | Jyưdlö, niindo | Iyculù |
| 435 | oil *-kuta | 081 | mafuta | mafuta | màgùtà | Imàgùta | maguta |
| 410 | old - kudo | 018 | kuukuu | -zene | nholukoko | -külokúlo | Thùlȯkúlò |
| 440 | one *-mo | 012 | moja | -monga | ímố | -Imô | imô |
| -325 | path *-ida | 075 | njia | nzila | nzila | nzila | inzilà |
| -558 | person *-nto | 027 | mtu | munt"u | müùnhȯ | múunhù | mưunhò |
| 76 | rain (n) *-buda | 067 | imvua | muula | mbüla | imbula | mbulà |
| 169 | root ${ }^{2}$-di | 035 | mzizi | mdela | nji | nzwi/mizwi | nzi |
| \%95 | sand "-canga | 073 | :mchanga | muhaijk'a | màséni | Sààngàsaanngà. imàsalù | saangàsàangà |
| \%251 | say *-boud- | 099 | -sema -ambia | -longa/-4i | -wìila | gouwila | gouwilla |
| -770 | see *-bon- | 087 | -ona | -wona | - Bònà | gơpona | و ${ }^{\text {¢ }}$ ¢ónà |
| 67 | seed *-beyo, -buto | 033 | mbegu | mbeyu | mbìyư, mbėgu ? | mbiyou | mbiyd |
| -434 | short *-kupi | 017 | -fupi | -fupi | ngùhì | -gùhl | ngüht |
| \%15 | sing *-yImb- | 098 | -imba | -imba | -iimba | quirimbà | Qwitmba |
| \%67 | sit "-yikad. | 097 | -kaa | -lkala | -ikàlà | gwigààshà | qưqiisha |
| +123 | Skin *-koba, -kanda -didI? | 037 | ingozi | ncingo | ikópà ndili | ikóßa, ndili | ikuounza, ndili |
| -136 | sleep (vi)*-daad-, -gon- | 090 | -lala | -qona | -tiindila | goolààâ | goushiitòlà |
| 1021 | small *-nini | 015 | -dogo | -dodo | ndo | -dololo -dóo | ndótöto ndo |
| \%629 | smoke "-yoki | 069 | moshi | lyosi | lyóóchi | lyóóci, gubeha (vt) | lyóochi |
| :69 | soil *-dongo | 072 | udongo | ilongo | Bülindò | Bólơónhó | Puloúngó |
| 1029 | stand *-y mm ( d d d$)$ - | 096 | -simama | -ima | -immifla | gwit̀mã gwìmíila | qwimimía |
| \%735 | star *-tondua, -yo(n)4i | 065 | nyota | nyelezimtond wa | sóorná | soondà | soonda |
| :61 | stone *-bue | 074 | jiwe/mawe | ibwe | iwè | iwe (pl mawe) | jwe/màwe |
| \%333 | sun*-juba | 063 | jua | izuva | lìmi | liimi lyùôa | limi |


| No | Language variety PB and Gloss | S/N | KiSwahili (KiSanifu) | CiGogo | Kimunasúkioma | JinảKiryâ | GinaNtuzù |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 3 0 | tail "-ksda | 041 | mkia | mucila | Inkila | nkita | nkila |
| 1020 | that *-da/e, -dra, VCVo | 009 | ile | -la | iyò | yoo | -yó, chó, - 10 |
| 54 | they *-bo | 006 | wao | vene/wawo | Boobi | Böoyi Bo | ßỏoi |
| 166 | tongue -dimi | 053 | ulimi | Jutimi | tolimi/ndimi | tolimi | \|olimi/ndimi |
| 267 | tooth *-yino | 052 | jino/meno | lino | Hizó | binó/minó | minoomiminó |
| 540 | tree - 4 | 032 | mti | muti/ibici | Ifinti | nlt | liinti |
| 752 | two -bidt | 013 | mbill | -jete | - 3 lit | iBilif | ipili |
| 322 | water *-jr | 066 | maji | malenga | milnzi | mìnzì | 'minzí |
| 1017 | we coe -cue -vitue | 004 | sisi | sese/ase | Biisè | (y) iisė | Pisé |
| 919 | what - ks | 007 | nini | cici | ki | Kif/kiíl $)$ ikii? | kify |
| 610 | white *-yedo | 023 | -eupe <yetu pe | -elu | -àapé | -iilŏ, -pé | -aàpe |
| 918 | who "-nani | 008 | nani | nani | nááni | nààni//náàni? | dyalf(hè) |
| -339 | woman, wife *-ke, kadi | 025 | imwanamke | mudala | nkifma | nkė | !ke |
| 15 | you (sa) (thou) *-be | 002 | wewe | gwegwe/agwe | Beėßé | ßе̇eßė | 队eepe |
| 1018 | you (p) (ye) -moe, -nue | 005 | ninyifnyinyi/nyie | cany | Giinwe |  | Siinwe |

Appendix f. Lexicostatistics 100 word-hist: 122. (i62

| No | Language variety $P B$ and Gloss | S/N | KiDakánà | KiNyànyèmbè | Kikonòongó | SiGàlàgàànzà | iKiHehe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 133 | abdomen, stomach ${ }^{\text {- }}$-da | 058 | ndà | ndà | ndà | nda | lileme |
| 926 | all *-(n)ce, -yona | 010 | -oose | woose | óse | -oose | -mbe-li |
| 55 | arm, hand *-kono, -boko | 057 | kjkónó | kùßókó | gùkonó | küßokó | Ifwoko |
| -337 | ashes *-bu | 071 | ißú/mảßú | matuunde | màwú | jvú/màvú | kifu |
| 297 | back $(\mathrm{n})^{*}$-gongo | 060 | m(i) goóngó | múgoóngó | m(u)góóngó | mügóò ${ }^{\text {a }}$ | :mugongo |
| 27 | bad *-by | 021 | - $\beta$ | -6i | - $\beta$ i | Hi | -vi |
| 1022 | baik -koba | 036 | iqưlà | gựà | Gqúla | Igoula | libande |


| No | Language variety PB and Gloss: | S/N | KiDàkama | KìNyänyeèmbè | KîKônóóngo | SiGälàgàanzà | TKiHehe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 811 | bird *-yoni, -nyoni, -dege | 029 | noni | nyōni | nóni | nyónyi | kidege |
| 125 | bite "-dom- | 085 | tüna | -ümá | -lümá | -Lùmá | -luma |
| 669 | blood *-gadi (n)yinga | 043 | $\mathrm{m}(\mathrm{y}) \mathrm{ga}$ ài | m(ù)gàzi | m(ù)gàzi | mügàzi | danda |
| 433 | bone -kupa | 044 | Tguta | quaha | Hoùhá | ifụpá | kisege |
| 17 | breast *-beede | 061 | májèèle, madưtú | måßéélé | maßéte | màßêelè | liveele |
| 679 | child, infant -yana .-yanake | 026 | xwaáná | mmaȧáa | mwàana, käkèké | mwààná | mwana |
| 305 | cloud - -dunde | 068 | tliunde | lluünde | luuunde | fịunde | lifufu |
| 4.45 | cold -pepo | 077 | mbèhó | mbehó | mbehó | mbehó | -sisimu |
| 624 | come --yij: | 095 | -iizà | -iizà | -izà | -izà | -sa |
| 471 | cook (v) ${ }^{\text {-dug- -teek }}$ | 086 | -zugá | teéka | -leékà | téékà | -teleka |
| 622 | dark black --yido, -piipi? | 022 | yààpi | -pì -làpúzú | -pi, wilápózu | -dàpi, itáßólé | -titu |
| 682 | daytime *-cr, -juba | 079 | liimi hágáti | hààpé | lyc̀ùßá | múlyùòßá | munyi |
| 425 | die *-ki- ku- | 091 | -fá | -fwa | -¢wa | -twà | -fwa |
| 60 | dog -bua | 030 | lwa, mbwa | mbwá | mbwá, mbwégése, m(ü)kwiyty! | mbwa | mbwa |
| 448 | drink (vt)*-nu- | 083 | -7wa | -nywa | -пwá | !aywà | uku-nywa |
| 563 | ear -tol -kuto | 048 | itwi | atwi | itwi/matwi | itwi matwi | lisikisa lipulikilo |
| 156 | eat *-dr- | 084 | -lyá | -lya | -lyá | -lyà | -lya |
| 273 | egp *-gI | 039 | igí/màgi | igi/màgí | igi/màgì | 19i | likana |
| E620 | eye *-yico | 049 | Jiso | linsó/minsó | liinsó/màansó | Dlinso/mionsó | liho |
| 652 | feather *-yoya | 042 | màyóyá | woooyá | mayoyá | 阝óya | Augala |
| 323 | fingernail -jada | 054 | Iunoónga | nzaaala | noónga | \|ouzàà/nzàlá | Iunyove |
| 474 | fire $=$ - yoto -drdo | 070 | mooto | mootó | mooto | mütilómootó | moto |
| !126 | fish "-comba, -cul | 028 | ndiflô | samáki? | nsoomba, nswi | nsamaki, nsoom | somba |
| 1028 | fly (vi) *-pap- -quduk- | 093 | -lalá | -lơókà | -làáa | gùlòkà | -guluka, -gulunduka |
| 449 | give *-pa -yink | 100 | -inḥa | -pa | -pa | -páa :péelezyà. | pela |



| SN | Kìảkámà |
| :---: | :---: |
| 094 | - ${ }^{\text {c }}$ |
| 020 | -soga |
| 014 | ihanyá |
| 045 | \%ownill |
| 003 | wèèi |
| 046 | mutwé |
| 088 | -ilgwé |
| 047 | mooyó? holo |
| 040 | ipeémbe |
| 001 | nèene |
| 092 | - Poolàgâ |
| 056 | jizwi |
| 089 | -mảnyà |
| 034 | jodưótù |
| 055 | kogold |
| 062 | itemaritima |
| 016 | Jinù |
| 031 | ida'nda |
| 024 | jobóshà |
| 011 | -ingi |
| 038 | nyàmà |
| 082 | mäßeèlè |
| 064 | inveèzi |
| 076 | \|egauto |
| 051 | miloomó |
| 080 | )liná |


| No |
| :---: |
| 269 |
| 758 |
| 409 |
| 702 |
| 603 |
| 356 |
| 623 |
| 543 |
| 707 |
| 1016 |
| 218 |
| 348 |
| 626 |
| 1025 |
| 310 |
| 1024 |
| 144 |
| 1023 |
| 226 |
| 793 |
| 596 |
| 1030 |
| 1717 |
| 1026 |
| 281 |


| No | Language variety PB and Gloss | S/N | KíDàkamà | Ki̇Nyànyėèmbè | KiKónóongó | SiGàlàgàànzà | Kirlehe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% 379 | neck *-ki(i) 9 go | 059 | inhiingó | hiingo | niingo | ikosi | singo |
| 962 | new -pra | 019 | -pya -gen! | impyá | m(ù)pya | -pyà | -pya |
| +718 | night -tiku | 078 | Boziko | uzikú | Boziku | Bơfükú | kilo |
| 4884 | nose -poda -judo, -yıdo | 050 | niindó | nyiindó | niindo | nyilindo | meneto |
| 435 | oil **uta | 081 | maguitáa | màtưtà | mapútȧ | mafưtá | matua |
| 410 | oid - kodo | 018 | -kȯlơkólơ | -a kálè | kiuukuuu lyakalé | kưưkúu | -gogolo, -vaha |
| 440 | one *-mo | 012 | Júmo | yimó | yimó soooló | iimò | -mwi |
| 325 | path *-irda | 075 | inzila | nzila | nzilà | nzila | nasi |
| 558 | person - -ntu | 027 | múünhò | mȯùntò | mùunto | müuntu | munu |
| 76 | rain (n) -buda | 067 | mbula | mvula | mbula | mừla | ndonya |
| 169 | root "-di | 035 | muzi | m(u)zi | m(ù)zi | muzi | ludela |
| 95 | sand * canga | 073 | m(u) seèngeela | musèngàsèngà | m(u) sèngàsèngà | musėèngà | fuhanga |
| 251 | say -botd- | 099 | -wila | -wiila | wiilà | - avifila | tigila |
| 1770 | see -bon- | 087 | -ßonà | -wòná | wóná -linga | $\beta$ ßoná | -wona |
| 67 | seed *-beyu, -buto | 033 | 10.piyo | mbiyư | mbiyó | mbutó | inyadikwa |
| 434 | short -kupI | 017 | ngühf | nouhi | nqưh | sifupt, -guhf | fupi |
| 615 | sing ${ }^{\circ}$-yimb- | 098 | iimbá | -i̇mbá | -imbà | -iimbá | -imba |
| 627 | sit * - yikad- | 097 | -iikala | -ikalà | rikalà | -iikàlà | -tengemala |
| 123 | skin *-koba -kanda, -dıdı? | 037 | ndili, ndilifí | ndili | ndilí | ndilif | inyingo. |
| $\bigcirc 136$ | sleep (vi)*-daad- -gon- | 090 | làala -tiondílà | -láala tovlo | flàala | -laálà | -qonelela, -vasa |
| 1021 | small *- vint | 095 | ndó | ndo | ndo | sido | -dodo |
| 629 | smoke *-yoki | 069 | lyoochi | lyonki | lyóki | lyȯónsi | lyusi, lisusi |
| 69 | soil - -dongo | 072 | Bólóóngó | òloóngó | Ȯlóóngó | ßülóȯgoo | luganga |
| 1029 | stand *-y um(1dtd)- | 096 | - itma | -itria | ima | -iimá | -ina |
| 735 | star *-tondua - yo(n)ti | 065 | sooondá | scoonda | sỏndà | nsóondà | inyenyesi |
| 61 | stone *-bue | 074 | iwe | iwe/mawe | iwe | ipwe | liganga |
| 333 | sun -juba | 063 | limi | lyoußa | yưoußa | \|rợßá | lisuva |
| 360 | tail ${ }^{\text {a }}$-kada | 041 | mukila | muktla | mùkìlà | musilá | mukila |


| No | Language variety PB and Gloss | S／N | KiDakamà | KiNyanyêembe | KiKonoòngo | SiGalagàanza | WiHehe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1020 | that＊－da／e－dia，VCVo | 009 | yyo | 1 fyo | yo | yò | －la |
| 54 | they－－bo | 006 | ßōó | ßenikili | ààvó | abo | vene |
| 166 | tongue＊－dimi | 053 | lolimi | lutimi | tolimi | loimi | Iulimi |
| 1267 | tooth＊－yino | 052 | minó | Iinó／mininó | lininó／mininó | Binónómiainó | lino |
| \＄540 | tree－ 41 | 032 | mùtí | mut | m（u） $\mathbf{l i}^{\text {a }}$ | mùtt | libiki |
| 752 | two＊－bsdr | 013 | ifili | Pif | 3 Bfif | 防ili | －vili |
| 322 | water＊－ji | 066 | minzí | miinzí | minzi | minzi | lulenga |
| 1017 | we cue－cue，yitue | 004 | yuiswe | iiswe | y liswe | invé | hwehwe |
| 919 | what＊－kt | 007 | kí | ki | ki | sii | kiki |
| 610 | white－－yedu | 023 | yàape | yaape | mweeloú，yaape | nyeelú | －elu |
| 918 | who＊－nani | 008 | nááai | nàảni | inaáni | ！ndėé | nani |
| －339 | woman wife－ke，kadi | 025 | mùkìma | m（u）kímà m（i）ke | m（u）kióíma | mùkímà | umukimama |
| 15 | you（sg）（thou）＊－be | 002 | 阝èeßé | eèpe | $\beta$ 阝èèßé | eewé | veve |
| $101$ | $\begin{aligned} & \text { you (pl) (ye) "-mue, } \\ & \text { nue.............................. } \end{aligned}$ | 005 | iingwe | iirwé | yï̀we | Imwé | nyenye |

Appendix t．Lexicostatistics 100 word－list：1．31，1；32

| No | Language vaniety $P B$ and Gloss | S／N | Kinaùushoola | KiniLàambà | KìnìHàànzù | GiRwana | GiÀhi | YìnyàMunyijànyi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 133 | abdomen stomach＊－da | 058 | uda | ndàa | nda | ndà | nda | ndà |
| 926 | all＊－（n）ce－yona | 010 | swé，tülve | swee | ini | nyöonè | －oone | nyoóòe |
| 55 | amm hand＊－kono，－boko | 057 | mùkónó | mùkónó | múxónò | mòxono | muxonò | mükònò |
| 337 | ashes＊－bu | 071 | maù | mau | maù | maù | maù | maù |
| ：297 | back（ $n$＊＊－gongo | 060 | mugoongo | mügóòngó | mògóòngó | mùyöngò | mùyơongò | mùyóngó |
| 27 | bad＊－bI | 021 | mbi | mbí | jbì | mbí | j阝i | mbif |


| No | Language vaniety PB and Gloss. | SN | KìàUshóola | Kiniláàmbà | KiniHàànzu | GiRwana | Giâhi | Yìnyàminnyigànyi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1022 | Dark --koba | 036 | - | gyóe | igáambà | ibada | ibàadá | Obàdà/màbàdà |
| 811 | bird "-yoni, nyoni, -dege | 029 | noni | nóni | nyonyi | nyobonyi | nyoonyi | ny domyi $^{\text {a }}$ |
| 125 | bite -dom- | 085 | koluma | kolumá | kolüna | orúmá | joruma | orrùnà |
| \%698 | blood \%gadi, (n)yigga | 043 | migàî | migalif | nsàkàmi | sàyàmi | sȧyàmi | sà yàmi |
| 433 | bone "-kupa | 044 | küpà | kyupá | ikúpá | ikura | IYứa | Ikựá |
| 17 | breast 'beede | 061 | mbélèlé | mbélélé | lyeetes | mbée | ivée. ouvémémée | màànyà |
| 679 | child, infant *-yana, yanake | 026 | mwâana | mwáana | nwaànà, múnenya | mwàànà | mwáánà mòninyà | mujlimbà, mwààná |
| -305 | cloud -dunde | 068 | Jưưndè/ma\|üūn ide $\qquad$ | lưundè | flüundè | rruiundè | byưundè | iru̇ùndè |
| 465 | cold *-pepo | 077 | mpépó | mpépó | mpèpó | Oryökü | mpéф¢́ | mpeégo |
| 624 | come * y y- | 095 | kouizà | kùizà | kikzà | Oja | OỪjà | oua |
| 471 | cook (vt)*-dug. -teek- | 086 | kulugga | küluga | kouluga | ưưya | orexa úrùy | oùy |
| 622 | dark black * - yido. -plipi? | 022 | nzito | nzitio | ndwàaú | joriki | -illou, nillo | jópiki |
| 682 | daytime *-cr, juba | 079 | münsi | munsi | mùnwe | muoumwi | moomw | muidmwi |
| 425 | die **ki. ku- | 091 | kơkiá | kukià | kùshà | küyà | küyà | küyà |
| 60 | dog *-boa | 030 | mbúá | mbuiá | mbwà | mbwa | mbwá | mbwa |
| 448 | drink (v1)*-nu- | 083 | kökopá | kükopá | kùnwa | nywa | unywa | nywá |
| 563 | ear *-tol -kuto | 048 | kotutu | kitoto ! | kutwt | kukwt | gtRwi | likorwe |
| 156 | eat - -dt | 084 | kolyá | kolya | kolya | lolá | doulya | Ờà |
| 273 | egg **g1 | 039 | gi/màgi | gyi | Mjiè/màjiè | ilyè/màlyè, iyi/màyi | iivi | inyè/màryè |
| 620 | eye *-yico | 049 | lisoómiiso | lisö/misoo | liihoormiihó | linho/minho | liino | riiho/minho |
| 652 | feather - -y ya | 042 | mauli | mailli | nzoya | injóza | majoóya | mapori |
| :323 | fingemail * - ada | 054 | kưlukiultu | lolkưlukilitù | lobkülưkolu | UKıúkú | Ohưưhù | Okưúku̇ |
| 4474 | fire - -yoto -dido | 070 | móótó | móóó | mòotó | móoRó | modró | módro |
| 126 | fish *-comba, -cus | 028 | ınsàmaki? | nsis | insit | isamàal? | soómba | soomba |


| No | Language variety PB and Gloss | $S / N$ | KinaUushóla | KiniLaàmbá | Kinìhànzu | GiRwana | GiAhi | YìnyàMünyỉjànyi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1028 | fly（vi）＊－pap－quduk－ | 093 | ikupùputa | kùpüputa | kopưtà kơlüma | Oruma | ¢ouma | oruma |
| \％449 | give＊－pa－vink | 100 | kúpéela | kuppeela | kùpunyà kùpa | pá？ | dóa | dóóyà |
| 269 | go＊－gi－－yend－ | 094 | kúyéénda | kùlóongola | kơlongoolà | eenda | Oweenda | aweenda |
| 758 | good＊－yija | 020 | imúuzã | mükéndè | nzizà | niljà | రừjá | liyảnà |
| 409 | great，big powerful＊－kudo | 014 | －kólò | nkkúlò | nkùlò | kúú | jkúú | nkúú |
| 702 | hair－yudr－yuede | 045 | dotưumbi | lotulumbi | tòsiingà／nsiingà | ORúkà／ntưka | Ojií | dotukà |
| ¢003 | he，she＊－kue，－ye（e） | 003 | dy | ¢̀yó | nweènsó | mwèèsó | mwesó | mweeso |
| \％ 356 | head＊－toe | 046 | tue | tuè | itwè／nitwe | IRwe | Rwe marwe | itwe |
| 623 | hear＊－yipu－－teg－ | 088 | kúligya | kùigya | kjua | Raàya | Revea | Règea |
| 543 | heart ${ }^{\text {－kodo，－Ima }}$ | 047 | 7kölò | gkóló | jkòlò | \％xóo | nxóó | 1 kóó |
| 7707 | hom，ivory＊－pernbe | 040 | ioupeembèmap eembe or impéémbè | Iopeembe | topèembe， ipeémbé／ mapeémbé | offeembé， mpémbé | ofeémbe | oфeembé |
| 1016 | $1 \times$－ne | 001 | ífnè | Ine | nėėné | nìnì | nèėnè | nėènè |
| 218 | kill ${ }^{\text {－－}}$ it－－bod（ag）： | 092 | Kowiyólàpà | kùyólàga | kơwölágà | ơolay | ợlàyà | ouvraya |
| \％348 | knee＊－dui，－du | 056 | Jǜ／màlúu | Luu | ilut | i⿺𠃊⿳亠二口⿺乚㇒⿻土一𧘇 | ilıu／màu | irù |
| 626 | know＊－man（i）－ | 089 | komànà | komana | kumañya | umanya | Umanya | umanya |
| 1025 | leaf－－yani | 034 | Joka | ！óka | ituoto | IRúRU | iRúRù／ màRúRù | nútò |
| 310 | leg，foot＊－gudo | 055 | आừgö｜ờ／migùl 0 | mùgùlò | múgùlò／migùlờ | mù Yùù | mùyùù | mò үóò |
| 1024 | liver－tima | 062 | tyíma | tyíma | timà／màtima | Rimà | Rimá | ititima |
| 144 | longhall－deepu tadt－de | 016 | Sytipú | byípu． | toulipú | ndifü | Eifu，ndifu | ndifü |
| 1023 | louse＊－nyumba | 031 | mpani | mpani | mpàn | nda | ndá | nda |
| 226 | mate，man，husband＊－ koci | 024 | mùgóóshà | ๆgóóshá | gigỏhà | mò yóósyà | mù yỏosyà | ๆgoósá |
| 793 | many＊－ying | 011 | uingi | niingi | idó | nyingi | －ringi | －ingi |
| 596 | meat－（n）yama | 038 | nama | nama | ；nyama | nyảmà | nyàama | nyàama |


| No | Language variety PB and Gloss | S／N | KìnàUshôola | Kìnilààmbà | KìnıiHàanzü | GIRwana | GiAhi | YinyàMünyinànyi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1030 | milk＊－beede | 082 | masúúnsú， masươnga | masôonsô | imàsúúnsù， ：màèèè | imààyà， imâhườngá | màȧyá | mààyà |
| 716 | moon ${ }^{\text {2－yedi }}$ | 064 | mwéell | mwéeli | nweeen | mwèèli | mwééli | nweéri |
| －717 | mountain＊－qudo－dondo | 076 | múlíma | 亿kónkó | I0golo | giy y óngo | SiRaàntó． | noongó |
| 1026 | mouth＊－domo | 051 | múlômó | mưlómó | mùtormó | mwoómó | mwóỏmó | mwooòmó |
| 281 | name＊－yina | 080 | Ilina | Tina | liina | liina | Tiina | riinà |
| 379 | neck＊－ki（i）n90 | 059 | nkiingó | jkiingo | phiingo． | nkiìgó | 刀kiingó | nkiingo |
| \％962 | new＊－pıa | 019 | mpyá | impiá | mpyà | fya | fya | mpyà |
| 718 | night ${ }^{\text {a }}$－liko | 078 | dikù | otiko | dtikt | ORixa | aRikú | oriko |
| 484 | nose＊－puda－jodo，－yıdo | 050 | mpơla | mpola | mpola | mpulà | mpua | mpuura |
| 435 | oil＊－kuta | 081 | màkútà | makútà | màkuta | màküRà | maxuRá | màkütà |
| 410 | old＊－kudo | 018 | nkúlòkòlo | nkúlokolo | inkừơkưlọ | ikúo，ixoombi | linilie | axaenge |
| 440 | one＊－mo | 012 | kaàmw！ | karmwt | kànwi | Imwe | Itmwe | gámwè |
| －325 | path＊－jrda | 075 | nzila | nzilà | nzila | ！jià | njia | njia |
| 558 | person＊－nto | 027. | muonto | muounto | mounto | motento | mươnto | mưùntò |
| 76 | rain（n）＊buda | 067 | mbúlà | mbuta | mbúlà | mbùlà | mbuà | mbirà |
| 169 | root ${ }^{\text {－}}$－di | 035 | mòli／milì | mùi／mili | mùli | mòoy | mwilli | moùnyi |
| 95 | sand＊－canga | 073 | munsaàãga | múnsaàngà | mihàangàhààng à | mahalo | hààgahaàngà | mahàngahánga |
| 251 | say＊－buıd | 099 | ku゙yiila | kùyiila | ku̇kwitala | hania | inania | ¢óxánla |
| 770 | see＊－bon－ | 087. | kuyona | kùyóna | joùōná | gooona | oooná | oonà |
| 67 | seed－－beyo－buto | 033 | mbéo | mbéo | mbè | mbèyù | ̇mbééyó | imbeey |
| 434 | short＊－kupl | 017 | kúpì | kúpì | \＃nkupi | kufi | kùfi | пkupi |
| 615 | sing＊－ymb－ | 098 | kùyiímba | kùyímbá | kkìmbá | giimbà | iffmba | wìmbà |
| 627 | sit＊－yikad－ | 097 | kòkikàlàànsa | kùkíkàlàànsà | ikit | ixàà | ixáa | Gixàà |
| 123 | skin＊－koba，－kanda，－ didt？ | 037 | ndili | mükúnzà | ndili | ndtit |  | imukữja |




号
${ }^{\circ}$



回


| No | Language vaniety PB and Gloss | SN | KıNyakyusa | Kikímbù̀N | Kikímbù-S | CiWòòngò | KiRangi | KèMbuwe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 133 | abdomen, stomach --da | 058 | Jwanda | ndà | ndà | enda | iinda | nda |
| 926 | all --(n)ce -yona | 010 | -osa | -oósè | woose | yèesi | oósi | -oónsè |
| 55 | , arm, hand *kono, -boko | 057 | kaboko | müxònò/mixơnó | müxóno | Onkơnó/mikóno | mukonó | mù Xonó |
| 337 | ashes *-bu | 071 | Uummandilo | mảu | máu | Itwiitwi | ivü | yùu |
| 297 | back ( $)^{*}$ *-90ngo | 060 | Inyuma | migóongo | mügoongó | mügoóngó | mwóongó | móopxó |
| 27 | bad *-br | 021 | bibs | ibi | ibt | jwi | yavéhà | kivi |
| 1022 | Dank -koba | 036 | kandi | ipátả | Lpátà | lgàambà | ikōkó | jola |
| 811 | bird "-yoni, -nyoni.-dege | 029 | niuni | nyonyi | nyónyi | inóóni | ndèe | mire |
| 125 | bile *dum. | 085 | -loma | kólùma | kólùmà | kóumà kówàwà | kollumà | oblóma |
| 669 | blood *-gadi, (n)yigga | 043 | dopa | mùgàzi | chááp | Olaànda | sakami | mwaàri |
| 433 | bone - -kupa | 044 | knfupa | jikupà | ikípù | ifúpámífupa | ikừà | kứta |
| 17 | breast -beede | 061 | ibeete | mápeele | máßeele | máwéele | màtòombó | màs ii |
| 679 | child, infant "-yana, yanake | 026 | mwana | mwàànà | mwáánà | òmwáánà ndư | m(iu)siínga | mwàáná |
| 305 | cloud *-dunde | 068 | ibingu | từnde | lituiundè | ikoùmbi, iwiìngù | ichù | dưưndè/màdù unde |
| 465 | cold *-pepo | 077 | mbepo | mpeepo | mpépó | imbèpó | mpeno | mpéfó |
| 624 | come * y i | 095 | -1sa | kwiija | wilià | wiizà | kooja | oooja |
| 471 | cook (vt)*-dug- -teek- | 086 | -ptja | koútéexa | kuleéxa | köteleeka | küúwa | otéréka |
| 622 | dark, black *yidu, pipip | 022 | tito | -aapi | nyiilo | nyilo | injirò | mweíama |
| 682 | daytime *-CI, joba | 079 | musi | Iyoúnsi | lyưonsi | onsanà nkolo | müusi | monsekati |
| 425 | die ${ }^{\text {c-ki }}$, ku- | 091 | fwa | kùgillàala | kùchà | kơtwa | kùkưya | küya |
| \%60 | dog *-bua | 030 | mbwa | mbwà | mbwa | iimbwa | kùrí | diyó |
| 448 | drink (tt) ${ }^{*}$-nu- | 083 | okunwa | kuņa | kúnwa, kùnwééla | komweèla | kùnywa | Oonyá |


| No | Language variety PB and Gloss | S/N | KINyakyusa | Kikífmbo-N | Kikímbùs | 1CiWoùngo | KiiRàngi | KėèMbùwè |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| !563 | ear *-toi, -kotu | 048 | mbolukotu | itwi/mátwi | Ifwi | ikuutwi (of animals), isikito (of humans) | kùtò | íkúto |
| 156 | eat *-dt- | 084 | -lya | kúlya | kúlyà | kòkơdyá | kurya | ra |
| -273 | eg9 *-9! | 039 | fumbr | igi/màgi | igí | iyi/màayi | tyi | yàaímàayí |
| 620 | eye - -yico | 049 | Iliso | lilisórmisos | iliso | fiiso/amiiso | riiso | riisoo/maiso |
| 652 | feather "-yoya | 042 | iijoja | wóayà | màgálà, waà | àmáweya | bàȧėrà | mbứye |
| 1323 | fingernail *ada | 054 | kyala | inȯóngà | Iwàala | iniingwa | impaảhà | !ôjálà |
| 474 | fire *-yoto, -drdo | 070 | moto | móto | móoto | Ondilo/mindilo | móotó | móotò |
| 126 | fish *-comba -CuI | 028 | nswi | nsipa | inshi | Sthwt | samaaaki ? | nsiyé |
| 1028 | fly (vi) "-pap-. guduk- | 093 | -pululuka | kùnyáánxà, kùpàpàmúxà | kùdiixà | kólưka | kùhúlùkà | Ofalala |
| 449 | give *-pa, -yink | 100 | pa | kúpèelà | kùpèélá | koùmba | kùtoólà | Ofa |
| 269 | go *-gi-, -yend - | 094 | buka | kùyà | kùyà | kòwàala | kùdùmà | Ofetà |
| 758 | good - yija | 020 | nunu | wósóga | nsoga | nooonu. | yà bóohà | kèjejá |
| 409 | great big powerful *-kudo | 014 | -nywamu | ikulda, ihányà | ikùto | Ikùlờ | kưtu | kinéne |
| 702 | hair -yuldr -yuede | 045 | lunywili | fonyéè/nyélé | nyèele | inyèèlè | lojwifil | njere |
| 603 | he, she **oe, -ye(e) | 003 | mwene | nweèné | mweèné | mwèène | yeei | wèé |
| 356 | head *tue | 046 | onto | mútwè | itwe | dontwe | mutwe | motwe |
| 623 | hear *-yigu-, teg- | 088 | pilika | kơtègèélà | kötègéélà | kòkwiiluà | kùtéérá | otéėra |
| 543 | heart *kodo -tima | 047 | ndumbula | móóyó | móoyó? | umóyó | muttima | nkólo |
| 707 | hom, ivory *-pembe | 040 | topembe | liinò, ipėèmbè | llinò. ipeèmbé | ípèèmbè/ mapeembe | mpeembè | mpeembe |
| 1016 | I'ne | 001 | one | nėèné | unééné | neèné | neene | neéné |
| 218 | kill ${ }^{\text {- yit }}$, -bud(ag)- | 092 | -90ga | kúwùlágà | kùwòlágȧ | kùkómàànga | kưóláa | wȯolá |
| 348 | knee -dui, -du | 056 | ifundo | iyừngo/ màyự̆ngo | iilu | igooti/magooti ? | ichóomèrò | kiiru |
| 626 | know ${ }^{\text {a }}$ man(i): | 089 | -manya | kómányá | kùmanyà | kumàana | kutáangà | omànyà |


| No | Language variety PB and Gloss . | S/N | KıNyakyusa | KiKíimbù-N | Kikímbòs | ICfWòv̀ngò | KiiRangi | KeèMbùwè |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1025 | leaf *-yani | 034 | Jyani | ititi | ititi/mátiti | mȧsȯotė | isaambi | sààmbi |
|  | leg, foot *-gudu | 055 | krlunde | mügùlò/migừò | múgólò/migó 10 | ìchinámà/iminám à | kùolı/màolo |  |
| 1024 | liver "trma | 062 | kinte | ttémà | itèmà | Itimá/màtimà | itimão | tifma |
| 144 | long/tall -deepu, -tadi, -de | 016 | tali | -liihu | kotali | ndaañ | ndihi | ndii |
| 1023 | louse *-nyumba | 031 | ingolo | mpàni | mpáni | İsưumi | nyiingiri | mpúti |
| \%226 | male, man, husband "-koci | 024 | nyambala | igoóshà | igwíshà | ilùme | muluame | lúmè. nyáamba |
| 793 | many *-yimg! | 011 | -ingr | nyingi | nyiingì | inioni | iréfù | nyiingí |
| -596 | meat *-(n)yama | 038 | jyama | nyàma | nyama | inyaama | nyàma | nyàma |
| 1030 | milk *-beede | 082 | Jokama | mápéelè | maßeéle | amaweéle | masuousú | masii |
| $\vdots 716$ | moon *-yedi | 064 | mwesi | mwéell | mwééli | ùmwéézi | mweeri | mwéeri |
| 717 | mountain *-godo. -dundo | 076 | kyamba | Hugừu | kitưưnda | kitoounda | Iùoloù | mweembi |
| 1026 | mouth *-domo | 051 | inkanwa | mưlơmó | múlomó | Undoomó | mulomo | molomo |
| ¢281 | name - -yina | 080 | mgamu | liina | Ilina | illinà | Irinà | riona |
| -379 | neck *-ki(i)ngo | 059 | makosi | nkiingò | ínkiingos | isingo | nkiingò | inchiingo |
| :962 | new -pra | 019 | -pya | mpyà | mpyá | timbya | nsyà | kitele |
| 1718 | night *-tiku | 078 | kılo. | Bútiku | Butiko | Osikò | ochikú | odikù notikù |
| 484 | nose *-poda -jodo -yıdo | 050 | mbulo | mpúlà | mpưola | itimbula | mpula | mpolà |
| 435 | oil *-kuta | 081 | matuta | maküta | makùtà | màfưuta | makuta | màkúta |
| 410 | old *-kudu | 018 | ikulo | :nsáxàlù, ixamà, jyả xálè | insáaxalò | ikàali | hasàkàala | nswààlá |
| 440 | one *-mo | 012 | -mo | !úmó | imví | Simw | imódo | moonti |
| 325 | path "-itda | 075 | inila | njila | njila | izilà | njirà | пjèrà |
| 558 | person *-nto | 027 | munde | múuntu | :muunto | ưưndò/àwàandù | moùntò | móontó |
| 76 | rain (n) *-buda | 067 | ifula | ̇mbula | mbula | Iviulà | mbula | mbúà |
| 169 | root *-d | 035 | Onsi | mùifi | mùli | ikwȧázó | muri | mori |
| 95 | sand *-canga | 073 | Unsanga | musèngàsėènga | butoóóngó | ùlusáánga | sálọ | mósàanga |


| No | Language variety PB and Gloss. | S/V | IKINyakyusa | KIKİ́mbò-N | Kikfimboù-s | tCiWoùnga | KiiRangi | KeèMbuwe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 251 | say *-burd- | 099 | -41 | kưwilla | kúwila | kúwilia kúpoojaj | iwifra | oweerà |
| 1770 | see "-bon- | 087 | -bona | ktúwȯnȧ | kúwonà | koltolà | kwòoná | wooona |
| 67 | seed "-beyo, -buto | 033 | mbejo | mbeèyd | imbeèyò | imbėyú | mbeèy | Ubed |
| 434 | short - kupl | 017 | pimba | kupi | ikupi | inipi | inkuf! | \#kute. |
| 615 | sing *-ymb- | 098 | -1mba | kwiimbà | kwitmba | kwilmbà | jkwitmba | weémbà |
| 627 | sit ${ }^{\circ}$-yikad- | 097 | -togaia | kwiixàlà | kuwiixalà | kwiikààà | kwwilkatà | wèikàla |
| 123 | skin -koba -kanda -drdr? | 037 | mbapa | ntitila | intiilà | inquéembe | ndiri | mberó |
| 1136 | sleep (vi) ${ }^{\text {- }}$ daad, - -gon- | 090 | gona | kưgónà ndoolo. | kưgona | kükona outuolo | kulaalà tơto | Oolala tòloo |
| 1021 | small *-nüni | 015 | -nini | -dó | kádôkàdo | ichi | ndüưdi | kididi |
| 629 | smoke *-yoki | 069 | lyosi | Iyúúkì | lyúóki | jióoshi | mòùkyl | móóki |
| 69 | soil *-dongo | 072 | mfu | ùlóongo | culóóngò | Hoborgo | iroongó | nsálo |
| 1029 | stand *-y Im(Idtd). | 096 | Ima | kwlimà | kwìmilita | kwifmitila | Kwiima | weema |
| 735 | star -tondua, -yo(n)ti | 065 | Indondwa | nsoónda | njôtà | ifizotà | nyenyeeri | njôtà |
| 61 | stone *-bue | 074 | itwe | bowe/mabwe | ibwe/mabwe | we/mawe | ißuye | wèè/maweè |
| -333 | sun -juba | 063 | isuba | yyươnsí, wáapè | dyuousi | űnzùwa | mwàasò | joóvà |
| 360 | tail *-kıda | 041 | unswigala, Imbikipiki | múkilà | imúkílà | Onnchila | mukirà | mòkérá |
| 1020 | that -da/e, -dia VCVo | 009 | -la | iyo | iyo | yila | (ki)-là | kerá |
| 54 | they -bo | 006 | bene/babo | -1wó | iwó | àwèené | vóovó | vóó |
| 166 | tongue *-dimi | 053 | lolimi | lúlimi/ndimi | tolimi | पovilmi/indimi | lorimi | lobéme/ndèmi |
| 267 | tooth $=$ - yino | 052 | lino | línò/míno | Slinormínó | itilino/amilino | iyoó | yéó/máó |
| 540 | tree *-ti | 032 | mpika | múti | ipiki | ikwi | muti | mote |
| 752 | two *-bidt | 013 | -brla | jipili | jipili | unvili | ivirio | ivèré |
| 322 | water - -i | 066 | imisi | migit | mijs | maazi | maaji | majis |
| 1017 | we cue, -cue, -vitue | 004 | uswe | inswe | sweeeswê | shweésthwe | scouso | siye |
| 919 | what *-kI | 007 | ffikI | kif | kintu ki | chindó chi | ché | kikí |
| 610 | white --yedu | 023 | -elu | yèlu yàape | mwèlu | tneelo | пjeri | njèró |
| 918. | who "-nani | 008 | liku/wani. | anànù | anaani | U. nạà | anié. | anyú |


| INo | Language variety P8 and Gloss . | SN | ${ }^{3} \mathrm{KiNy}$ yakyusa | Kikiimbü-N | KiKímbùs | iCiWôùngó | KiiRàngi | KeeMbuwe |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \%39 | wornan, wife "-ke, kadi | 025 | inkikulu | mukiıma | mukioma | únchimà | müokyé? |  |
| 15 | you (sq) (thou) --be | 002 | ugwe | Beèse | weewé | Oweewe | wèwé | wééwe |
| 11018 |  | 00.5 | wnwe | Limwe | Ruwénıwe | mweémwe. | myuny | nye |






[^0]:    ${ }^{1}$ The forms of the language names with long vowels have been adopted in order to record the names phonetically, rather than phonemically. The aim is to avoid ambiguities. For instance, KINyamweezi and JinaKriya have long /e/ and /I/ both phonologically and phonetically, although they are erroneously written with a short / $/$ / and /I/ respectively

    * Another name is KIGwe, presumably, the original core of the KiSukuma language around which speakers from other speech communities amalgamated and later became known as KISukuma speakers. KISukuma is a recent name originally used by outsiders. It is paradoxical though. that the original name, KiGwe, is not used now, except as a crossreference in archives, and many speakers do not even know of its existence. Its reference is also restricted to one location near Lake Victoria rather than the whole KISukuma speaking area (See Guthrie 1967-71).
    * Guthrie's work on classification is a classic in Bantu linguistics. His system of classification is also the most popular, and hence he forms a point of departure for this study.

[^1]:    ${ }^{+}$"Language" and "dialect" are used in their imprecise form to mean both linguistic and socio-political entities, "dialects" being subordinate to the superordinate. "language". As shown in M/ap 1.2 below, the language varieties written in italics are dialects. Where space was not sufficient, a key using arbitrary letters from A to I was used to represent them.
    ${ }^{5}$ The group label of F10 was taken rather than F1| KiToongwe and F12 KiBeende. Only one language was used with the assumption that the two are in fact one language, as explained below
    "KìnaNdáago o KìnàMbứgà, Kin' L̀àmbì are not discussed

[^2]:    ${ }^{7}$ Although there is still no consensus on the organization of the hierarchies from Proto-Bantu to today's varieties, one common version is: Proto-Bantu eastern Bantu $\rightarrow$ Proto-Zone F $\rightarrow$ Proto-KiSukuma $\rightarrow$ JinaKirya

[^3]:    ${ }^{*}$ Adjustments have been made in the representation of some phonemes, especially vowels. Instead of Guthrie's *i, *u, *e, *a, *o, "u, *y we adopted the following convention for them, which is also used by Maganga and Schadeberg (1992) and Batibo (2000) and in their other publications: *i, *I, *e, ${ }^{*}$ a, ${ }^{*} \mathrm{o},{ }^{*} \mathrm{U},{ }^{*} \mathrm{u}$

[^4]:    "These serial numbers refer to Nurse and Philippson's list

[^5]:    ${ }^{10}$ When lexicostatistics is mentioned, glottochronology is excluded. unless explicitly stated

[^6]:    ${ }^{1}$ Work was in progress then (1995), involving many Bantu languages/dialects (450 + ) based on lexicostatistics, interpreted historically. Published and became Bastin. Coupez and Main (1999)

[^7]:    2 D Nurse and J. Maho, p.c. (2001)

[^8]:    ${ }^{3}$ These include F21b, F22a. F22d, and F23c from SSN. From the rest of Zone F the following are only mentioned without any description whatsoever, while some are not even included, as far as this author is aware: F10, F3 la, F3Ic. For instance, the bibliographies of Bantu language materials in general held by individuals and public libraries are seriously lacking, as shown by Downing (1989). Without specifying dialects. Downing shows for instance that only two general works mention SiSúumbwà (F23) since 1880; seventeen sources appear for KìSükúmá (F21), thirteen documents for KìNyamweézi (F22), two mention KìKímbö̀ (F24) and nothing appears for the other varieties of Zone F. Polome (continued ..)

[^9]:    "A full treatment of BS and $7>5$ is found in Chapter 3. They are treated together because of their close causal relationship.

[^10]:    ${ }^{7}$ The long vowel [ii] in KiiRangi is a result of two shor vowels from two syllables kias a marker of language, and the initial [i] in i-Ra-ngi, the root. In SiSuumbwa, as in many (continued...)

[^11]:    * More data are available now and the situation of 1980 was noted by Nurse (1999) himself almost two decades latter, by including more languages/dialects, thus helping make more concrete statements.

[^12]:    ${ }^{4}$ Paradigm in this sense is borrowed from Kuhn (1970) from his seminal work in the philosophy of science. It refers to a set of models, concepts, theories, methodologies and methods used by a scientific community in describing and explaining phenomena

[^13]:    (1) The fallacy of ethnomorphism refers to the conceptualization of the attributes of other groups in terms of one's own (Fischer 1972:224-226), which differs from ethnocentrism which refers to the exaggeration of the role of one's group in the interaction with other groups (Fischer 1972:226-230)

[^14]:    ${ }^{11}$ For some more discussion on $\beta$ aSukuma recent migrations. see Masele (1996).
    ${ }^{12}$ For a comprehensive summary and review of these paradigms in archaeology, see Chami (1994), Fagan et al (1996), Renfrew and Bahn (1996), Harke (1998).

[^15]:    ${ }^{13}$ The case of ethnicity in Rwanda and Burundi is intriguing. The Batuutsi are thought to be Nilotic or Afro-Asiatic from the north, possibly Ethiopia, aithough there is no evidence whatsoever so far because they speak KiNyarwanda, iGiHa or KiRundi, which are Bantu languages. In these languages, there are also no known traces of foreign linguistic or cultural influences, Nilotic or Afroasiatic. This would only suggest that there was ethnocide which left no trace (see Kimenyi 1979 I who suggests that the Batuutsi and Batwa lost their languages and adopted that of the Bahutu, a Bantu majority group).

[^16]:    ${ }^{14}$ The role of blood type and DNA analyses are unlikely to solve this problem since it is difficult to know if there exists any correlation between blood or DNA and language in the first place, although an open mind to entertain that possibility is better than out of hand dismissal

[^17]:    ${ }^{15}$ Mihanjo, Mapunda and Luanda (1999) discuss such a scenario of areas of refuge where the Walggoni marauders are remembered more for their invasions than the slave raids, suggesting that those people might not have witnessed the slave raids because they ran away northward into the area currently occupied by the SSN speech communities. These came from different speech communities. The result was mixed features in the SSN languages.

[^18]:    'The representation given by Guthrie (1967-71) *ny, is IPA *I Some of the other conventions used by Guthrie are *y, which is [PA *j. The plosive *j which is also adopted in this study, is IPA *).
    ${ }^{2}$ For a full discussion of this, see Kahigi (1988) who offers good arguments for both sides of * d and ${ }^{*}$ I preferences. Kahigi favours the diachronic development of stop weakening by Homburger and Guthrie's PB *d > I rather than Meinhof's strengthening rule of *1>d (Kahigi 1988:31. 150). Guthrie's solution is acceptable to Kahigi because it is phonetically and typologically sound, and it is simpler. In contrast. Meinhot's strengthening solution gives

[^19]:    ${ }^{4}$ Although our data as shown in Tah/es 3.1.3.2, 3.3, 3. 4 and 3.5 demonstrate that KeeMbuwe is 5 V , Mous (p.c.) and Nurse (p.c.) think the language has 7 contrastive vowels. while Dempwolff (1912) shows 9. These tables address F10, F23, F25 and F34. since the vowels in F21, F22, F24, F31, F32 and F33 are not controversial.

[^20]:    As shown in (5) and (6), the merging process in *I/*e>e, *o/U>0 in F34, and ${ }^{{ }_{i} /{ }^{*} \mathrm{r}}>/ / 1 /,{ }^{*} \mathrm{u} / \mathrm{u}>/ \mathrm{u} /$ in F 10 and F 23 , follow the more widespread pattern of Bantu language 7 V vowel systems and their mergers described by Schadeberg (1994/5:73-75). For Zone F, that system is $/ i, \mathbf{I}, \varepsilon$, a, $\supset, U, u / / / e /$ and $/ o /$ represent $/ \varepsilon /$ and $/ \rho /$ respectively.

[^21]:    * For comparison, outside of Zone F, all have [ t ], except E60, some G40, some EJ30 have [r], some E60 [d]: E611 [h]; some G41 [c] (Nurse (1979).
    "The word *-tindik- push' may be a wrong indicator, since in KeeMbuwe, it is the only irregular one, suggesting borrowing than internal sound change. In this case, it displays

[^22]:    ${ }^{11}$ KiiRaŋgi has [c] which is also found in neighbouring KiPare (G22) and Saghala (E74b). and in Rutara (EJ20/EJII-4).

[^23]:    ${ }^{11}$ The reliability of $[\mathrm{x}]$ as a sole reflex of * k in this phonetic environment is not solid in GiAhi since the set of words for comparison in *k/_i $[+$ superclose $]$ were 7 in all, 2 of which were questionable, 3 were not filled, while I appeared to be borrowed.
    ${ }^{12}$ Such an environment can be best described as $\mathrm{kiV}-\mathrm{ciV}-\mathrm{cV}$ as a first step in (continued ..)

[^24]:    ${ }^{12}$ (...continued)
    palatalization before consonants, i.e. kiC as it becomes a regular process (where V and C are any vowels and consonants respectively).
    ${ }^{13}$ Comparative Bartu. 1971. Parl I. Vol. 2.
    ${ }^{14}$ Kapepwa K. Táambilà (p.c. 15th April 2000), a speaker of KiBende/KiTongwe and (continued...)

[^25]:    ${ }^{16}$ This case is similar to the four Seuta languages (G23, G24, G3) and G34), where the three have/s/, while one, G23 (KiShambala), has /J/ (Nurse, p.c. May 2000).

[^26]:    ${ }^{17}$ However, Dempwolff(1912:15) records 9 vowels for KeeMbuwe rather than 5 , as noted in 3.1 .1 above. As a reminder, these 9 are $\dot{i}(y), \underline{i}(y), \underset{e}{e}, \underline{e}, a, \underline{o}, \mathbf{o}, \underline{y}(w), \underline{u} . \operatorname{In}$ addition. Guthrie (1967-71) does not give any vowel details for either KiiRangi (F33) or KeeMbuwe (F34), although he records 7 vowels for KiTongwe ((F1I), from his Tongwe Group which includes KiBende (F12)). These 7 are the regular vowels found in 7V Bantu languages like KıSukuma or KiKirmbu, from Proto Bantu*; i, e, a, o, u, y, the first and last being the superclose. These superclose vowels show clear BS even in KiTongwe (Guthrie (1971:47, vol.2)

[^27]:    ${ }^{16}$ In fact. Nurse estimates that all Zone G languages have had BS for 1000-2000 years, long before KiSwahili influence (p.c. $13^{\text {th }}$ February 2001)

[^28]:    ${ }^{11}$ The rate of change from the 9 or 7 vowels observed by Dempwolff (1912) to 5 vowels in 1999 may be unusually speedy, unless they are phonetic or are due to the impact of a dominant language like KiS wahili which has been playing a major role in schools in recent years. In schools, the crop of young informants is likely to be even more susceptible to conforming to a language of wider communication in a multilingual context, especially in speech communities whose speakers number only a few thousands or less.

[^29]:    ${ }^{20}$ Sometimes, 'spirantization' is used to mean 'palatalization' or 'affrication', and sometimes restricted to BS only. In the case of Labroussi (1999), she refers specifically to BS, although the processes in the languages she describes suggest general palatalization. a process which is supported by the many exceptions in the same contexts.

[^30]:    2) PAL = palatalization, as separate from BS
[^31]:    ${ }^{n}$ Nurse. personal communication, March 2000

[^32]:    ${ }^{23}$ Nurse, p.c. May 2000.

[^33]:    ${ }^{2+}$ In many speech communities in Tanzania, and indeed, in those of the whole world. there may be groups perceived to possess "superior" attributes at a certain point in their historico-cultural contact with others. Because of that, they command special respect so much so that other groups feel relatively inferior to those groups and reject their own assets and attributes and glorify others'. This was common especially during pre-independence days when ethnic or "tribal" consciousness was created. The post-independence period, starting from the mid-1960s with the policies of socialism, levelled out most of the ethnically-based differences, and respect for everybody was restored, and different sets of attributes not based on ethnic identity emerged. Examples for certain groups in society being overly privileged and protected can be multiplied in any culture.

[^34]:    ${ }^{15}$ Keembuwe and ICIWUUngu are borderline, with 5 V without BS (F34), and 7V with some BS acquired through borrowing (F25). KISukuma and KINyamweezi are in this category too, since they mix features from borrowed items, having 7V, with BS in loans
    ${ }^{20} \mathrm{~F} 10$ (KiBende), F23 (SiSuumbwa), G42 (KiSwahili)

[^35]:    ${ }^{27}$ While the original Dahl's Law in KINyamweezi might have worked by voicing the first voiceless stop of the first syllable when two such stops are consecutive, its mechanism is realized differently in different language varieties, as in JinaKirya

[^36]:    ${ }^{2 x}$ For an in-depth analysis and exampies, see Bennett (1967). Davy and Nurse (1982:157-195).

[^37]:    ${ }^{2 y}$ In Zone EJ languages like oRuHaya, oLuNyankore, RuKereße and LuGanda, the reflex of *-kupa bone" is either -gufwa or -gufa, and some KIRImi speakers are said to have come from around those areas, like Ukerewe Island in Lake Victoria (Jellicoe 1969:3. Tanzania Notex and Records)

[^38]:    ${ }^{713} / \mathrm{w} /$ and $/ \mathrm{y} /$ may only be spelling devices rather than being phonemic, indicating that they represent no or zero phoneme/0/.

[^39]:    " For *g loss in other Bantu languages, especially KiSwahili, see Nurse and Hinnebusch (1993)

[^40]:    ${ }^{3}$ Only GiAhi has this word with $/ \mathrm{k} /$ in this context. (although that does not mean that it is not used in other contexts)
    ${ }^{73}$ The two varieties of the three show $/ \mathrm{k}$.
    4 UPSID is an abbreviation for the UCLA Phonological Segment Inventory Database.

[^41]:    Key:

    + in yinyaMunyinanyi only
    ++ in GiAhi only
    +++ in GIRwana only

[^42]:    ${ }^{15}$ This environment has also been called 'before tense vowels' by Nurse (1999:25). although 'tense vowels' are difficult to define or isolate clearly (Katamba 1988:48), since the feature [ + tense] is only relevant if the language has vocalic oppositions like $[i-I],[y-r],[u-0]$, and it is commonly used in Germanic languages, which have contrasts like English [sust] 'suit - [sut] 'soot' and German [m'te] 'rental fee'- [mite] 'middle' (Gussenhoven and Jacobs 1998 76-7) KeeMbuwe at least has no such opposition.

[^43]:    ${ }^{16}$ The information with regard to Bantu Spirantization and $7>5$ in other zones is from Schadeberg (1995), while that for Dahl's Law is from Nurse (1979b, 1993, 1999), Davy and Nurse (1982). Bennett (1986)

[^44]:    ${ }^{37}$ Although KIDakama (F22b) is traditionally part of KINyamweezi, the evidence so far suggests that core KINyamweezi is composed of F22a, F22d and F22e

[^45]:    ${ }^{3 \kappa}$ The total number of words for each environment, e.g $\mathrm{PB}^{*}-\mathrm{p} \ldots \mathrm{i}$, is put in brackets in each table.
    "The numbers in brackets after a reflex are total frequencies of a reflex in each dialect out of the total in the list used.

[^46]:    ${ }^{14}$ Kahigi (1988:5)

[^47]:    ${ }^{43}$ KiBende, which has a devoicing rule, has /f/ without exception from/v/ in this PB *bi context (See Nurse 1988 58, also noted above)

[^48]:    ${ }^{44}$ When $P B$ *b is intervocalic, it regularly changes to $/ \beta /$ a process which might have helped later to have $/ \beta /$ and $/ \mathrm{b} /$ as separate phonemes. When * $b$ is prenasalized or is underlyingly $/ \mathrm{b} /$ as opposed to phonemic $/ \beta /$, then it remains $/ \mathrm{b} /$, as in JinaKirya /mábü/ /mosquitoes' in contrast to $/ \mathrm{ma} \beta \mathrm{u} /$ ashes', /màßū/ 'grey (colour)' or /maàßó/ 'forests'
    ${ }^{45}$ The change may be a phonetic strategy for $/ \mathrm{O} /$
    ${ }^{46}$ Although no /b/ or / $/ /$ is shown in the three words used, $/ \mathrm{v} /$ is still irregular

[^49]:    ${ }^{17}$ The presence of the reflex /d/for PB ${ }^{*} t$ in KiSukuma. and to some extent KINyamweezi emphasises the original underlying sound / $t /$ which is voiced by Dahl's Law, as in *-tiku>/-diku/ rainy season'. This can be compared to second syllable position $/ \mathrm{t} / \mathrm{in}$ *-kiti $>/$-giti/ darkness', ${ }^{*}$-piti $>/$-biti $/$ hyena'

[^50]:    ${ }^{\text {tx }}$ Borrowed words from KiSwahili illustrating DL in JinaKıya: tatizo $\rightarrow$ datiizo 'problem', kupe $\rightarrow$ gupe 'tick'; kutu $\rightarrow$ gutu rust', katibu $\rightarrow$ gatißu < Arabic [ka:tib] 'writer, secretary, clerk', katani $\rightarrow$ gatani < Arabic [katta:n] 'sisal, flax. mapato $\rightarrow$ mabato income, receipts ${ }^{\circ}$

[^51]:    ${ }^{\text {19 }}$ * !koti Proto Bantu 'nape
    nkodi nkoni By Dahl's Law Prefix nasality spread nhoni Loss of $/ \mathrm{k} /$ occlusion ghooni vowel lengthening before nasal phưni Vowel raising (height anticipatory assimilation)

[^52]:    ${ }^{41}$ Data were limited in this word: only three words were relevant for the PB *-tu environment, and out of these, all were absent in SiSiloombo. Only SiGalagaanza had/f/.

[^53]:    ${ }^{51}$ The KiHoloholo features were pointed out to me by Nurse when he said some of the tense/aspects looked quite similar to those of KISukuma from Coupez (1955)
    ${ }^{52}$ The terms 'borrowing' or 'loan', though established, are not precise. Borrowing implies lending, and both words suggest a loan which is normally refunded or returned Such a situation does not apply in language, just as 'transfer' is not as precise because it implies a one-way conduit. Words like 'adoption' (imperfect assimilation) and adaption' (total assimilation) are preferable.

[^54]:    ${ }^{13}$ Although this word is widespread in east African Bantu languages, it is not found in Guthrie's nor Meeussen's reconstructions of Proto Bantu.

[^55]:    ${ }^{55}$ Total number of cases out of 10 words used, out of which some have no responses for reasons such as the presence of a different lexeme.

[^56]:    ${ }^{56}$ Lack of attested examples is not necessarily a sufficient argument. although as a provisional hypothesis, it is useful.

[^57]:    ${ }^{57}$ The prefix kw-eezi is used in Western Highlands (DJ60), parts of Rutara (EJ10/20) and Suguti (E.J25)

[^58]:    ${ }^{5 *}$ There are some minor problems with *I and *d in Indo-European too where a name like Odysseus is also Ulysseus (John Hewson, p.c.)

[^59]:    ${ }^{\text {cul }}$ The 'tribal' boundaries which were also regarded as linguistic' often coincided with administrative borders like provinces, districts and wards, so that it was common to regard certain 'tribes' as occupying certain locations as if speech communities were as rigid and as relatively unchanging as physical features like mountains and valleys For instance, many maps show that Tabora and Shinyanga Regions are occupied by the KINyamweezi and KiSukuma speakers respectively, divided by the seasonal Manoonga River. But Manoonga River or any physical boundary anywhere in the world cannot be regarded strictly as a language boundary because of its porousness, as indicated by the common shared features between KiSukuma and KiDakama, the later being grouped as KINyamweezi. Because such labels carry mmense socio-cultural and legal complications like ethnic identity and political territoriality, changing such perceptions is very difficult given the short period of 40 years since flag independence in 1961

[^60]:    ${ }^{61}$ Ambivalence of SiGalagaanza is shown by displaying both $/ \mathrm{ki} /$ and $/ \mathrm{si} /$ in PB *-kind'overcome' /-kiinda, -siinda/, indicating an existence of two phonological systems because of having two lexical sources.

[^61]:    ${ }^{63}$ A discussion of DL is found in section 3.2.2. Mention here is made because of the contrast between F21 and F22 in the way they show their irregular reflexes.

[^62]:    ${ }^{\text {at }}$ The case of regular voiceless JinaKrrya prefixes voicing is unique in F21/F22, as in the name of the dialect itself: $\mathrm{kI} \rightarrow \mathrm{gI} \rightarrow \mathrm{gi} \rightarrow \mathrm{ji}$

[^63]:    ${ }^{15}$ See Batibo (2000:24-25) for a discussion of glottalization in SSN

[^64]:    ${ }^{\text {fin }}$ In SiGalagaanza, PB *-kind- 'overcome' is both /-kinda/ and /-sinda/

[^65]:    ${ }^{\text {4.7 }}$ The words used here were 'magic', 'witchcraft' and 'witch', which in Proto Bantu are expressed by one concept, *-dogi. It may be taken as one word or three depending on whether form or content is central. For the sake of SiGalagaanza, three words are preterable for capturing the double reflexes.

[^66]:    ${ }^{68}$ This metaphor of 'shells' protecting the inner centre was brought to my attention and illustrated by Nurse as an appropriate inference (p.c)

[^67]:    (9) This word may be from PB *-catu rather than from PB *tatu. and therefore they are not cognate.

[^68]:    ${ }^{71}$ Muzale (1998:93-4) mentions that Dahl's Law in Rutara is not productive, because it occurs in a few words only. It is informative to note that he also mentions two words engata 'headpad' and -gufi/-gufu 'short' as examples of the few traces of this Law. These words appear only in KiLoongo.

[^69]:    ${ }^{17}$ In KISukuma, particularly in JinaKirya, the nature of voiceless nasals is not explored fully, since it is not immediately relevant. A survey of some initial voiceless nasals and their description in JinaKirya is attempted in Masele (1996).

[^70]:    ${ }^{72}$ In forms like PB *-kopi 'flat of hand', SiSuumbwa has/-kofi/in contrast to forms like PB *-pik- 'arrive' which is/-hika/. The former is a likely loan from KiSwahili, while/hika/ is inherited from PB.

[^71]:    ${ }^{73}$ KIDakama (F22b) has a form here.
    ${ }^{74}$ KImunaSukuma
    ${ }^{75}$ JinaKilya/KimunaSukuma have ////. Ginantuzu /s/ and KıNyamweezi, including KIDakama /f/. In PB *-pik 'arrive', KIDakama has /]/, KIKonoongo /s/

[^72]:    ${ }^{76}$ Only in JinaKirya is DL not skipped since PB *-pik- "arrive' is /-figa/

[^73]:    ' A table of all percentages and the years they represent is presented and discussed in f.1.2.3. Tables f.16-18 when absolute chronology is compared to relative chronology discussed in Chapter 3.

[^74]:    ${ }^{1}$ Comparative Bantu On-Line Dictionary under the direction of Larry Hyman. University of California at Berkeley, with contributions by participants from all over the (continued...)

[^75]:    ${ }^{3}$ (..continued)
    world and found at http:I/www. linquistics.berkeley.edw/CBOLD (in 2000)
    ${ }^{4}$ There is disagreement on long vowels in KiSwahili, although there are indications that the distinction is there (Batibo 1990, Batibo and Rottland 1994, Mpiranya 1995). For instance, baba, dada and papa for 'father', 'sister' and 'shark' respectively are appropriately baaba, daada and paapa. Whether these words are borrowed, onomatopoeic or that minimal pairs in the language cannot be found for them to solidify the contrast, is entirely another matter.

[^76]:    ${ }^{5}$ The linguistic groups of eastern African languages which are fairly genetic can be found in the proposals of Nurse (1982, 1988, 1994/5, 1999), Nurse and Hinnebusch (1993). Muzale (1998), among others. These groupings are often changing as better analyses and understanding become available. Their major function is therefore mainly referential and tentative until definitive answers are finally assembled.

[^77]:    ${ }^{6}$ The following abbreviations and symbols, explained in the abbreviations section, are repeated here as a reminder:
    : $\quad=$ separating different forms of a lexeme or concept in different languages
    cf = compare with these forms, which may be related or not
    [1 = enclosing languages which do not form the complete set
    () = enclosing related languages being compared to the rest
    : $\quad=$ explanation follows, especially type of innovation
    ? $\quad=$ unconfirmed, uncertain or doubtful case
    ${ }^{7}$ M32 is a code for CiNdali, suggested by Swilla (1981, 2000), a native speaker of the language and a linguist, a suggestion which is a good addition, since Guthrie (1967-1971) did not include all languages/dialects. This code is adopted in this study.

    * This word was found in the KIKirmbu list collected by Nurse and Philippson in 1972, although in the list of 1999, the informants of both north and south did not mention it. It also suggests borrowing from M1I or M12 since they share borders.

[^78]:    "( ...continued)
    Rather, such a form is obtained as a dependent morpheme when number, the diminutive or other process is involved: noondo (generic, base) ga-toondo small wasp; ma-toondo 'many, big wasps'
    ${ }^{11}$ E141 (Maragoli/LuLogooli?) and M12 (CiMpoto), though do not undergo the homorganic nasal and stop process, do show the word as it is found in KISukuma It is not clear whether EJ403 KiSuba displayed a misspelling in omokonondo or not. On the other hand, though N13, P13 and P14 do not use that word, the one they use undergoes the same proces: ŋkonga 'trunk (of elephant)' < mu-konga.

[^79]:    ${ }^{12}$ Although Batibo ( $1992 \mathrm{~b}: 70$ ) suggests that probably -puli elephant' is from peel 'elephant' from Proto Southern Nilotic, it is unlikely, because only the consonants match. In addition, /ee/ changing to /0/in KiSukuma2 is not phonologically or phonetically motivated. If it is not a KiSukuma 2 innovation, then the source is not known because Hadza and Sandawe speakers do not use such a word for elephant, as one would expect from people who are synchronically more proximal to the KISukuma2 speakers and might have been better hunters at that time than the Proto Southern Nilotic speakers. Bubenik (p.c) suggests the same source of the Afro-Asiatic form as Arabic fi:l elephant

[^80]:    ${ }^{13}$ A Zone D and DJ source, from Proto Savanna *-lemi 'creator, maker' as in D53 (Tembo) -rema create', DJ61 rurema 'Creator; manifestation or type of imaana who has created what which exists'; DJ62 iremezo 'base, fundamental principle; ideal; army chief Schoenbrun ( $1997.212,252-253$ ) provides another plausible alternative to Proto West Rift 4eemi(Batibo 1992b:64) because of D and DJ's typological proximity and the nature of the universality of the object, 'sun' as a least candidate for borrowing. The sun is also associated with the gods, and as a euphemism, lyoußa is justified in remaining in KISukuma rituals and use the loan IIrmi instead. The plausibility of the D and DJ alternative is strengthened by the meaning 'creator, maker' while 'day' from Cushitic is weaker in semantic motivation. In addition, there is a strong ritual connection of ritual between KıSukuma and Barbaig, and less so with any modern Cushitic group. In KiSukuma Issirda (Insinta) 'god' < Barbaig aseta 'sun' is also common. In addition, đeemi is 'day' rather than 'sun' which can be closer to a higher concept like 'creator'.

[^81]:    ${ }^{14}$ Private parts and other taboo phenomena elicit all types of euphemisms and associations, favouring indirect references. For instance, while 'vayina' in most of Rutara is -mana, the same word except for vowel length in Western Highlands like KiRundi and KiHangaza is -maana 'god, creator'. In Rutara, by association. god = creator = vagina. Is it < PB *-man- know"? > "The knower', 'God', or is it from a different source? In Rutara -nio 'buttocks' suggests that, the regular word for 'vagina' PB *-yo was replaced by borrowing a word which associates 'vagina' with the creative powers of a god, and therefore became "god', emana, although with time, even euphemisms become taboo. On the other hand, $P B^{*}$-nio 'anus', < PB*-ni- defecate' seems more plausible, by derivation. In languages
    (continued...)

[^82]:    ${ }^{15}$ From Nurse and Philippson's list, while our list had mutemi

[^83]:    ${ }^{16}$ While de Blois (1975) mentions that word, native speaker Evelyne Namaemba KiSembe (p.c. 17 September 2000) is not aware of such a word in the Lußukusu she speaks. It might be a dialectal variation or a loan, since table salt processed by modern methods is cumbe KiSwahili cumvi, while that made traditionally by extracting from plants is called xumufrt. She also says that Lußukusu is changing rapidly
    ${ }^{17}$ LuSaamia seems to use two forms, musamvu and citanu na cißili. This suggests borrowing, which can be of either one, or even both.
    ${ }^{18}$ It is not clear what were the original CiNdali (M32) numerals and what happened to them after such a short contact with English, since Swilla (2000:304) does not explain. although she clearly says they were loans from the CiNdali spoken in Malawi (Malaaßi) where English was prestigious enough to replace even those morphemes considered relatively resistant to change by borrowing, although they are occasionally replaced (Swadesh 1950:157).

[^84]:    ${ }^{14}$ This word appears in Nurse and Philippson's 1972 list, suggesting idiolect variation, depending most probably on the bilingualism of the informant, his/her area of residence and the probability of borrowing.
    ${ }^{23}$ Recorded in Nurse and Philippson's CBOLD list, and the speaker from KIKIImbu North (F24a) responded by giving kiloomda and igwopko, while two of the F24b respondents gave kiloonda only
    ${ }^{21}$ From Nurse and Philippson's list, while our list was kupokulya according to the translation in KiSwahili, which was kupofiua 'to blind' from 'spoil, blind in which the KiSwahili rendering does not include 'spoiling' as such because it is general, while to 'blind' is a specific form of spoiling.

[^85]:    ${ }^{22}$ Palatalization in KInILaamba occurs before class 5 (di/dr or li/li) and 8 (bi/bI), in many tense markers like -i- present, -ki- future, -ile perfect (Nurse 1979b:31).

[^86]:    23 ' $R$ ' is a consonant which stands for an approximation without full feature specifications, and therefore can be flexible (See Rottland 1989:220)

[^87]:    ${ }^{24}$ Only in Nurse and Philippson's list, our list has kw-iiluka/kw-iiluka 'run'

[^88]:    ${ }^{25}$ In Nurse and Philippson's list

[^89]:    ${ }^{25}$ From Nurse and Philippson's list.

[^90]:    ${ }^{27}$ From Nurse (1979b:542)
    ${ }^{23}$ From Nurse and Philippson's list

[^91]:    ${ }^{2}$ Compare explanation given by Nurse 1979b:513 on the status of -samu 'blood' as an unlikely loan from KiSwahili damu 'blood', which is a loan from Arabic ciam, a word which may not be used now in Arabic, and whose original meaning in Arabic is obscure (Bosha 1993)

[^92]:    ${ }^{12}$ There are two ways of representing this name, Barabaig and Barbaig (Rottland (1982:27)

[^93]:    "In the majority of dialects, the initial phoneme in the root is $/ \beta /$. In others, it is /w/ or /u/. /b/ is used as a proto-phoneme

[^94]:    ${ }^{4}$ KiSukuma2 is equivalent to(KImunaSukuma, GrnaNtuzu, JinaKirya) + KiDakama while plain KiSukuma refers to KrmunaSukuma, GinaNtuzu, JinaKirya only. This has been pointed out above (section 4.2.1.2.3)

[^95]:    *" Suggestion by and discussion with Nurse, personal communication, 2000

[^96]:    ${ }^{41}$ In most of Rutara like in oRuHaya (EJ22), the idea of using a euphemism, a loanword or a grandiose term is also observed (as in F20/F30) where 'old woman' is the

[^97]:    ${ }^{+1}$ ( continued)
    regular o-mu-ka-i-kuru and 'old man' is either o-mu-gurusi (sg)/a-ba-gurusi (pl)' 'founder or patriach', or omu-karuka < Proto Southern Nilotic *ko:rk 'married adult (Ehret 1971:136). Abagurusi, as those clan founders who constitute oRuHaya society, just as the KiSukuma case and their clans: n-gI-kulu 'old woman', namala/ßanamala 'old man' indicate absence of classless society as is often implied in earlier Bantu prehistory (See Cory and Hartnoll 1945 [1971]) and Itandala (1983) for a discussion of clans and their founders in the respective speech communities)

[^98]:    ${ }^{42}$ Lack of mention may reflect more than one fact: absence of such a word, informant forgetting a word or being unaware of its existence, even when it does and confusing between similar concepts and mentioning the wrong one.

[^99]:    ${ }^{13}$ The numbers outside the brackets indicate the presence of mu-nampala old male person', which is the only unique innovation of Zone F, although it is only a partial uniqueness as explained in the text, since it may be a loanword from Kaienjin or a derivation from Proto Bantu.

[^100]:    ${ }^{4}$ The forms in the individual dialects vary between $/ 1 /$ and $/ I /, / u /$ and $/ \mathrm{U} / \mathrm{and} / 1 /$ and /r/, the proto-form likely to be -IIIU, < PB *-yidu 'black'. In subsequent forms, such a reconstructed lexeme is posited as the most unmarked and expected with regard to regular reflexes from Proto Bantu. Where relevant, KiniLaamba acts as a reference point because of its least number of changes from Proto Bantu compared to KıRImi.
    ${ }^{15}$ From Nurse and Philippson's list.
    ${ }^{15}$ From Nurse and Philippson's list.

[^101]:    ${ }^{47}$ GII and G12 are from Nurse's unpublished field notes.

[^102]:    4* ( continued)
    Francolimus genus, related to and resembling the quails and partridges found in the Oid World), mbumwe orkwale in KiSwahili. For example, Michael Kimolo characterized the two languages as dialects which differed in speed and length of some syllables only: KiiRangi faster, and KeemBuwe slower tempo.

[^103]:    ${ }^{49}$ F22c in Guthrie is Krya which does not belong in F22. It was shifted to F21 as F2 1c JinaKirya. In addition F22b KIDakama joined the F21 group because of its linguistic affinity. leaving F22a, F22d and F22e as the core KINyamweezi dialects.

[^104]:    ${ }^{51}$ The addition of kv - is counted as one innovation only, and the cases mentioned only illustrate the phenomenon in the language. Most of the words are inherited from Proto Bantu F31 and F32 do that to a limited degree (Nurse, p.c).

[^105]:    ${ }^{51}$ Abbreviations used by Maghway (1995:211) in describing Iraqw Some like N 'noun' are universal, while others like $f i$ or $f i i$ are language-specific: $\mathrm{N}=$ noun; $\mathrm{Sg}=$ Singular; $\mathrm{fi}=$ first feminine subcategory; fii $=$ second feminine subcategory; $\mathrm{Pl}=$ plural; $\mathrm{m}=$ masculine; $\mathrm{NC}=$ non-count noun, $\mathrm{n}=$ neuter
    't seengi can also be posited in KiSukuma as *-ce '(his) father' and *-pgi other',

[^106]:    ${ }^{53}$ From Nurse's 1972 unpublished field notes collection

[^107]:    ${ }^{54}$ The shared areal vocabulary of these two is $83 \%$ as shown in Tahle 4.29 , which is less than $87 \%$, indicating reasonable internal cohesion, although the languages are also significantly different because of heavy interference.

[^108]:    ${ }^{\text {ss }}$ F23a,b is strictly SiSuumbwa, while F23c, KiLoongo is treated separately.

[^109]:    - Only one word is indicated, itlustrating the possibility that the tanguages are not immediately genetically related.

[^110]:    ${ }^{56}$ A German term meaning a linguistic situation in an area whereby features are shared across genetic language boundaries (Kiessling, unpublished manuscript, 2000).

[^111]:    Although there are many traces of DL in Rutara (EJ1I-14/EJ21-24 and in J in generai), their status is debatable considering the spirit of our study. Most of DJ60 has DL. and if SiSuumbwa (F23a/F23b) belongs there, then it suggests an earier split

[^112]:    ${ }^{2}$ If the scooper is human, then it becomes n-kuumbi < mu-kuumbi
    ${ }^{3}$ For a discussion of these alternations in KISukuma, see Masesa (1978).

[^113]:    ${ }^{6}$ In Zone F, $7>5$ without BS refers to KeeMbuwe alone, a situation which calls for more empirical research involving many speakers of the language. Otherwise, non-BS $7>5$ is unusual, and Nurse (p.c.) is sceptical about its truth. Our analysis in Tables 3.3.3.t and 3.5, Chapter 3 showed clearly that KeeMbuwe shifted to 5 V

[^114]:    ${ }^{7}$ Most of these place names are located within the shaded areas of Map I.I. mainly in the area where the speakers of those dialects or languages mentioned are concentrated, shown in Map 1.2.

[^115]:    ${ }^{*}$ All the language names in Guthrie are writen in their long forms with the prefixes indicating 'language/speech', although Guthrie himself does not show the prefixes in all languages.
    ${ }^{9}$ As classified by Guthrie (1948), making our scheme skip F22c within F22 because it does not belong there, and therefore transferred to F21 as F2lc.
    ${ }^{10}$ Although KiLoongo appears under SiSuumbwa, the data shows that it does not beiong there. It belongs in Rutara (EJ10/EI20, especially EJIO).

[^116]:    ${ }^{11}$ The other two dialects are not shown in the table because they were not included in this study for lack of data. These are KiniAmbi (F31d) and KınaMbuga (F3le).

[^117]:    ${ }^{12}$ The language names written in this section are according to the sources conventions.

[^118]:    ${ }^{13}$ Ehret, Christopher 1994 Eastern Africa in the early iron age explorations in history, 1000 B C to A D. 300. Prepublication manuscript, published 1998 as Ah African Classical Age. Charlottesville: University of Virginia Press.

[^119]:    ${ }^{14}$ Personal communication, October 1999, with regard to research in $\beta$ USukuma

[^120]:    ${ }^{15}$ Communication becomes possible only when facilitated by KiSwahili in bi-or multilingual speakers. But many people in Tanzania, especially in $\beta$ USUkuma, are still functionally monolingual, unless they went to school where they learnt KiSwahili.

[^121]:    Kìnilààmbà Central pyäàngo
    bytinả
    kứpảàpà
    
    
    

[^122]:    English
    leaning (be)
    learn
    leave, permission
    leave over
    leave, go away
    leave (off)
    left over, (be); remain over
    leg, foot
    lend, borrow
    leopard
    lick (vi)
    lie down
    lie on one's back
    lift up, pick up
    light in weight
    light, sky
    lightning
    lime, whilewash
    line, row
    line, fishing
    lion
    lip
    listen
    listless (be)
    liver
    livestock (keep)
    lobster
    locust
    

