Bantu grammatical reconstructions

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BANTU GRAMMATICAL RECONSTRUCTIONS

by

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INTRODUCTION

A full comparative study, whether grammatical or lexical, should comprise at least the following parts : presentation of the data geographically, typologically, and in the form of correspondences; discussion of possible proto-forms and setting up of reconstructions; examination of the data as end-point of development (as reflexes of the proto-forms); moreover, at every step one should take into account the work done by predecessors. The present exposition gives the reconstructions only. One reason for doing so was that although some reconstructions are fairly obvious for anyone examining a number of Bantu grammatical systems, an orderly statement of these reconstructions is not available; for part of the reconstructions (double vowel, sequences with nasal, -CV- and -CV--CV- radicals, tones of prefix, of infix, of extensions, of subjunctive and of imperative) justification has been presented elsewhere, so that the method used can be evaluated. The chief motive, however, for issuing this set of conclusions now, without waiting for the possibility of submitting proof, is that it can be viewed as part of a comprehensive work which is in full progress. This program is being carried out by a team of three research workers; it consists mainly in excerpting data from all available Bantu grammars and in working out, after critical examination of these data, comparative studies about a series of grammatical items. More information about this program can be found in : BYNON-POLAK, L., Lolemi, *Un programme de dépouillement de grammaires bantoues*, Africa-Tervuren, X, 3, 1964, pp. 63-66.

Abbreviations : C : consonant, V : vowel, T : absence of tonal reconstruction, NP : nominal prefix, EP : numeral (« enumerative ») prefix, PP : pronominal prefix, VP : verbal prefix.

PHONOLOGY

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1.1. *Vowels.*

A completely satisfactory reconstruction of the vowel system is the series /i̧ i e a o u y̧/, in which /i̧ y̧/ symbolize close vowels, whereas /i u/ are more open. Each of these vowels has equal status; a division into primary and secondary vowels, for example, results from a confusion of levels in time depth, reducing e.g. every /e/ to /a-i/, because in a number of cases a present-day /e/ is a manifestation of °a-i. Also reduction of /i̧ y̧/ to various combinations of the « primary » vowels /i a u/ lacks factual foundation.

Another transcription of the same vowel system is /i e ɛ a ɔ o u/.

Examples : -gi̧d- « abstain », -gid- « do », -ged- « try », -bad- « count », -bod- « rot », -pum- « hit, beat », -py̧m- « go out ».

1.2. *Vowel sequences.*

Vowels can occur in sequences, e.g. i̧a, ia, ea, ai̧, ai, etc. A closed vowel (i̧, y̧; i, u; e, o) followed by a more open vowel (i, u; e, o; a) is sufficient to account for the occurrence of semi-vowels in the present-day languages. It is often difficult to distinguish VV from VjV [which will usually be written here as V(j)V], e.g. -béjad-/-bé(j)ad-/-béad-, « plant, sow ». Even correspondences pointing to long vowel can be interpreted as containing sequences of two identical vowels; a list of such cases will be found in 2.22; other instances are -jóotá (óot/ónt) 9 « thirst », -béede 5 « breast », -táano « five », -túúbá 3 « six », deedó « today ». See also type -CV-VC- (2.25), denominative (2.7), and compare the reduplicated stems maamá la̧ « (my) mother », taatá la̧ « (my) father », -dúudú 9 « shrieking », -déedé 7 « sky ».

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1.3. *Consonants.*

Reconstructions for consonants are :

m	n	ɲ	
b	d	j	g
p	t	c	k

There may have been one more independent consonant phoneme : ŋ, but it is not easy to assemble good evidence for it (but see 1.8). The series /b d g/ is often attested as fricative (and /l/ rather than /d/), but this seems to be an allophonic difference, since the contrast with /p t k/ is practically everywhere a contrast between voiced and unvoiced (even in those parts which have the additional contrasting feature of fricative versus stop).

Instead of /c/, one might just as well use the symbol /s/; likewise, /z/ or /y/ instead of /j/ (and /l/ instead of /d/).

Examples can be found e.g. in 2.23.

1.4. *Nasal complex.*

Complex consonants, or consonant sequences, are here symbolized as follows :

mm	nn	ɲɲ	(ŋŋ)
mb	nd	nj	ng
mp	nt	nc	nk

In a theoretically more consistent symbolization the units nj, nc, ng, nk would have to be given as ɲj, ɲc, ŋg, ŋk. An alternative to the analysis using four different nasals is to consider the first element in the whole set as an undeterminate nasal : Nm, Nb, Np, Nn, Nd, etc.; this, however, entails the setting up of one additional phoneme (N). It is of course possible to interpret each of the items in the table as an undivided unit (⁓m, ⁓b, ⁓p, ⁓n, etc.); in that case there are eleven or twelve additional phonemes. For (ŋŋ), see 1.8.

The occurrence in the reconstructed lexicon of complexes with voiceless consonants is so much restricted that it will be worth while giving the forms in full. The best of these reconstructions are :

-ntu	« some, any » (4.6)	-nɪnk-	« give »
-nce	« all » (5.2)	-pémp-	« scratch »
-nka	« alone » (5.2)	-tont-	« drip »
-jóntá, -jóotá	« thirst »	-kont-	« beat, hit »
-jónk-	« suck »	-nʉnk-	« stink »

The other forms are incomplete (no tonal data) and less reliable :

-pimpa (i/ɪ ?)	« night »
-kanca	« claw... » (cp. -ganja)

-tantatu, -tandatu	« six »
-tent-, -tint-	« be warm, burn »
-papat, pampat-	« feel (with hand) »
-mat- (-mant-)	« run »
-kat-, -kant-	« cut »
-jank-	« take; hang (arms, feet) »
-cank-	« be glad »
-conk-	« assemble »
-pump-	« speak »
-tup-, -tump- (t/c, 1.5)	« thrill, excite »
-tunt-	« beat »
-kunt-, -kunkunt-, -kungunt-	« beat... »
-kunk-	« hang up; collect, harvest »

1.5. *An unclear unit.*

A number of correspondences show a wavering between /t/ and /c/, e.g. -tákųn-/-cákųn- « chew », or -cáce/ -táte 11 « spark »; the data are not sufficiently clear for reconstruction of an intermediate phoneme, contrasting with both /t/ and /c/. For a somewhat comparable situation with -tátu « three » and -táano « five », see 5.1.

1.6. *Tone.*

The tonal system has to be set up with two units : low and high, e.g. -táma 5,6 « cheek ». These tonemes accompany either a vowel or a syllabic nasal. Some data would postulate two tonemes for one vowel; in such cases it is profitable to interpret the vowel as a sequence of two identical vowels with different tonemes; this is found most frequently in word final e.g. -bíi « bad », or -tóo « young » (but -cí 9 « ground, earth »). For more complicated cases, see 1.9.

1.7-9. Morphophonology.

1.7. *Vowel morphophonemes.*

In a stem (either nominal or verbal), °i appears as /e/ after either °e or °o :

°-ténd-id- :	-ténded-	« say to... »
°-dond-id- :	-donded-	« seek for... »

Similarly, °u appears as /o/ after °o (but not after °e) :

°-pót-ud :	-pótod-	« untwist »

The rule applies even in cases where °e or °o is followed by a sequence of °i or °u which is not interrupted (by °į, °a, °ų).

The units °e and °o are rarely found in extensions (2.3).

1.8. Consonant morphophonemes.

Perhaps we should set up for Proto-Bantu the following rule (« Meinhof's rule ») : in a word, a consonant sequence consisting of nasal and voiced oral is manifested as a double (or long) nasal if the following syllabe has a nasal (either simple or in sequence) :

ᵒn-bón- :	mmón-	« I see... »
ᵒn-dim- :	nnim-	« I cultivate... »
ᵒn-jong- :	ɲɲong-	« I add... »
ᵒn-gend- :	ɲɲend-	« I go... »

The double or long nasal seems to be a particular case of nasal complex (1.4); acceptance of the rule makes it difficult not to accept /ŋ/ as a phoneme.

1.9. Morphotonemes.

The two tonemes, low and high, can be viewed in most cases as direct manifestations of two basic tones (morphotonemes), since every morph nearly always has the same toneme; but see pronominal and verbal prefixes (4-8), for which more than one approach is possible.

There are a number of well circumscibed complications, which cannot be handled by manifestation rules applying to just the two basic tones, but require the setting up of additional morphotonemes or morphotonologic patterns. Since these are all of different nature and different field of application, each of them will be discussed in its own morphologic section (2-8). Here an enumeration with references will do :

1. Tonal harmony; see connective (5.3), possessive (5.4), relative (7.5); extensions (6.6.3); « two » (5.1).

2. Tonal contrast; see imperative (7.2).

3. Metatony; see infinitive (7.1).

4. Epimorphic patterns; see demonstrative (5.5); preinitial (6.1); subjunctive (7.3).

VERBAL DERIVATION

Unanalysable units 2.1.
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    Suffixes 2.7-9.
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        Deverbative 2.9.

2.1. Unanalysable stems.

A few forms never have a final element; neither do they show a division into radical and suffix :

-di	« be »	(cp. -bá- « be, become »)
-ti	« say »	(introducing a quotation)
-(j)íji	« know »	in part of the Bantu area this is a normal base : -(j)íjib- (cp. -maɲ- « know »)

2.2 Radical (and formal radical).

2.21. Normal type.

The most common type is CV(N)C : -bút- « bring forth », -búmb- « mould ». In this type there is no real restriction on the occurrence of any V or C; but, as stated in 1.4, NC with voiceless C is rare. Although -jVC- is mostly reflected as /-VC-/, it may be that in reconstructions -jVC- will have to be distinguished from -VC-; provisionally we write -(j)VC- in most cases.

The radical -bón- « see » has an irregular treatment when combined with the final element -įde (6.8); similarly with -bįad- « give birth » and -dúad- « be ill », when these are followed by final -į (3.1).

There are at least eight radicals of type -(j)įC|VC- : -įnuk- « stop work and go home », -įduk- « run », -įjuk- « remember », -įpid- « weed », -įpag- « kill », -įtab- « answer a call », -įkad- « sit », -įkut- « bc satiatcd »; different from these is type -(j)įC-VC- (-įb-id- « dive », -įb-uk- « emerge », -įp-ik- « dish up », -įp-ud- « take (food) out », -įja/ud- « become full », -įga/ud- « shut/open ») and also type -(j)įC- (-įb- « steal », -įt- « pour », -įk- « go down », etc.). The verb bases beginning with /(j)į/ are thus seen to be more numerous than those having other initial vowel phonemes.

2.22. Double vowel type.

There are at least the following reconstructions for type -CVVC-, with two identical vowels rather than one long vowel :

		-tíid-	(d/n) fear, flee
-níin-	climb	-bíik-	put away
-peem-	breathe	-keem-	ache, hurt
-peed-	be light, swing	-béep-	tell lies
-peep-	breathe, blow	-déet-	bring
-beek-	shine	-téek-	put on fire
-maam-	smoothe	-dáad-	spend the night
-báag-	slaughter	-nood-	(d/n) sharpen, whet
-póod-	hit with	-tóod-	pick up
-poop-	hammer in	-dóot-	dream
-toot-	hatch	-cuum-	drip, leak
-búud-	tell	-púud-	thresh, beat

-puup-	blow (wind)	-tuut-	beat, hit
-búuk-	rise, get up	-tʉ́ʉp-	be blunt

A number of these suggest a suffix (2.9), although neither any alternating suffix nor a separate radical is attested : impositive -ik- suffix in -bíik- and -téek-; transitive reversive -ud- in -tóod- and -búud-; intransitive reversive -uk- in -búuk-; denominative (2.7) -p- in -tʉ́ʉp-.

2.23. Short radicals.

There are about twenty radicals displaying a structure -CV-; fairly satisfactory reconstructions are possible here :

(-dį-	dance)		
-gi-	go	-dí-	eat
		-pí-	burn
		-tí-	fear, flee
-ne-	defecate		
-ce-	grind	-ké-	dawn
		-bá-	become, be
		-pá-	give to
		-tá-	throw, drop...
-mo-	cut hair	-ɲó-	drink
-co-	set (sun)	-pó-	dry up, finish
		-tó-	pound, hit
		-kó-	give bridewealth
-du-	fight		
-gu-	fall	-tú-	hit, be sharp, cut
-dʉ-	come (out) from	-tʉ́-	cut; spit
		-kʉ́-	die

Attestation is geographically very restricted for -dį- « dance »; a difficult case is -ni- (n/ɲ ? i/į ?) « rain ».

2.24. A type -CV| (in -CV|VC-) is rather frequent, but little careful reconstruction has been achieved; no tonal reconstruction can be offered for the first five items in the following list : -bʉim- « chase », -puim- « breathe », -kįud- « break wind », -pįong- « press (out) », -pįom- « stammer », -pįa(n)g- « sweep », -tįed- « slip ». To these should be added some of the bases with |ad- (and |an-); see 2.6.

The presence of vowel /o/ without preceding /o/ in -pįong- and -pįom-, as also of /e/ in -tįed-, is remarkable; it would seem to suggest an earlier stage of the language which had not yet the Proto-Bantu rules given in 1.7.

2.25. There are at least four examples of a special type -CV–VC-, in which the extension –VC- is a suffix (2.9) that must be present, so that the radical is never used alone :

-dʲ--	« in the earth » (but cp. -dʲ- in 2.23)
-dʲik-	bury
-dʲam-	be under the ground
-dʲud-	disinter
-dʲuk-	rise
(ʔ-dʲat-	tread on)
(ʔ-dʲan-	dance)

-tú--	« on the head » (cp. -túe 3, 4 « head »)
-túik-	put load on...
-túad-	carry
-túud-	put down
(-túuk-	fall off)

-kú--	« in the handle »
-kúik-	put into handle
-kúud-	take out of handle
-kúuk-	come out of handle

-dy̨--	« on the body » (d/b/j/g ?)
-dy̨ik-	clothe
-dy̨ad-	wear
-dy̨at-	wear
-dy̨ud-	unclothe
-dy̨uk-	fall off.

For each of these radicals, the translations suggest a meaning which would suit better a nominal (more precisely : a locative) than a verbal; this is quite exceptional in the whole system.

The radical would belong to the normal verbal type in the case of some other verbs (« hide — bind — cover — put — awake »), for which no firm reconstructions are available.

2.26. Some reconstructions, all incomplete through lack of tonal data, imply a type of radical with initial reduplication (-cvCVC-) :

-tʲtʲm-	be frightened, jump
-tetem-	tremble
-pepet-	winnow
-tutum-	tremble, quake; thunder

The translations suggest meanings with a common element « movement to and fro ».

2.27. A type -(N)C- is rare and doubtful; -ng- and -c-, both with meaning « resemble », are the only cases to be mentioned. The former, just like -ding- « be equal », may be a relatively recent development, on the basis of -di nga... « be like ». The latter is probably a late phonetic contraction of -cu̯c- « resemble ». Both cases require detailed investigation.

2.3-9. *Base.*

This term is used here to indicate a verb stem minus the final element. A base can be : CV or CVC radical; CV(C)|VC radical, which can be cut by purely formal segmentation into formal radical CV(C)| and expansion (or : formal suffix) |VC; or a sequence consisting of radical CV(C) and one or more suffixes (VC). Where convenient, the term extension will be used to cover both expansion and suffix.

2.3-6. Expansions have a structure |V(N)C-, in which V can be any vowel, although °e and °o are rare. For manifestation of vowel quality and tone, see 6.6. 2-3.

2.3. The expansions in some bases are entirely different from suffixes (2.9) :

|u̯-	-ámu̯-	suck (u̯/u ?)
	-úngu̯-	hear (var. -i̯gu-...)
|i̯m-	-ádi̯m-	borrow, lend

|i̯m- and |om- : see 2.24

|u̯n-	-táku̯n-	chew
|i̯ng-	-bi̯di̯ng-	be round, turn
	-kádi̯ng-	roast
|ang-	-kádang-	roast

|ong- : see 2.24.

|ab-	(? -i̯tab-, -átab-	« answer » (a call) »; cp. -i̯t- « call »)
|ag-	-i̯pag-	kill
|ut-	-i̯kut-	be satiated
|ak-	-úbak-	build

2.4. In other bases the expansion is formally identical with one of the suffixes :

|id-	-i̯ngid-	enter
	-kímbid-	go about
	-teped-	T be soft
	-du̯mid-	T allow, permit
|ik-	-bedek-	T carry child
	-conek-	T draw a sign
	-du̯pik-	T sharpen
|am- ?	-ácam-	gape

|at- ?	-pųdat-	T turn round (intr.)
|ud-	-kocod-	cough
	-dongod-	precede
	-púmud-	breathe, rest
	-kumbud-	T remember (also |uk- ?)
|uk-	-gaduk-	return
	-dunguk-	be fierce (also |ad- ?)

See also 2.24 (-kjud-). Some of these reconstructions are not satisfactory, since they lack a sufficiently wide geographical basis.

2.5. There are indeterminate cases, in which the extension could be either an expansion or a suffix :

-įjud-, -įjad- « become full » (the geographical distribution of /u/ and /a/ needs close examination) (: -įji 6 « liquid »)
-dunguk- T, -dungad- T(?) « be fierce »
(-įgud- « open » : -įgad- « shut » : -įgi 11 « door »)
-cagud- T (?) « separate »
(-dumat- T « bite » : -dum- « bite »)
-pųan- « resemble ».

2.6. The extension -ad- appears partly as an expansion, partly as a suffix with ill-defined meaning :

-dúad-	« be ill »
-dibad-	« forget »
-bįad-	« give birth »
-túad-	see 2.25
-dųad-	see 2.25
-bé(j)ad-	« plant, sow » (: -béju 9 « seed »)
-démad-	« be cripple » (: -démá 7 « cripple »)
-pútad-	« be hurt » (: -pútá 9 « wound »)
-įgad-	« shut », -įgud- « open » (: -įgi 11 « door »)
-(j)įjad-, -(j)įjud-	« become full »
(-dungad- T, -dunguk- T (?) « be fierce »)	
-įkad-	« sit » (: -įk- « go down » ?)
-tįgad-	« remain » (: -tįg- « leave »)
-bábad-	« suffer » (: -báb- « hurt... »)
-ímad-	« stand » (: -ím- « stand (up) »)

2.7. *Denominative verbal bases.*

The clearest suffix is -p- « to be... », mostly found after an adjective stem (4.9), and often expanded by -ad-. Reconstructed bases are :

-daį-p-	« be long » : -daį « long »
-bíi-p-	« be bad » : -bíi « bad »

-kée-p-	« be rare » : -kée « few »
-néne-p-	« be large » : -néne « big »
-píu-p-	« be hot » : -pí-u « hot » : -pí- « burn »
-ógo-p-	« be afraid » : -óga 14 « fear »

With added -ad- : -daịpad-, -bíipad-, etc. In -ógop-, the final vowel of the noun stem -óga is treated as an extensional vowel (manifested as identical with the radical vowel). The transitives corresponding to bases having -p- are with causative suffix -ị- : -daị-p-ị- « lengthen ».

A less clear case is the suffix pair -d- and -k-; with nominal stem -pokụ « blind » they are transitive -pokụ-d- « make blind » and intransitive -pokụ-k- « become blind »; also -mudi-k- « to light », with included stem -mudi (3, 7, 11) « torch », is intransitive. For other words, at least in the present-day languages, the choice between -d- and -k- is often determined by the preceding consonant.

More isolated cases are bases with suffixes -m- (mainly after ideophones), -n-, -b- and -t-; the best examples are :

-cu-b-(ad)- « urinate » : -cu 6 « urine » (formally comparable is the dever-
    bative base -ịji-b- « know », an expansion of -ịji « know »)
-(j)ími-t- « conceive » : -(j)ímị 5 « pregnancy ».

See also « open//shut » (and « become full » ?) in 2.6.

2.8. *Ambivalent derivation.*

If we define « derived » as « having one more element » and « underlying » as « having one element less », then there are pairs of derivationally related (nominal) stems and (verbal) bases to which the definition cannot be applied in the usual way. This happens when each item in the pair has an element which is lacking in the other : the base has a final consonant /m, n, d, t/ or /k/, whereas the stem has a final high tone. Such cases are :

-démá 7 « cripple » : -démad- « be a cripple »
-ání (-é ?) 3 « warmth/light of the sun » : -ánik- « spread in the sun... »,
    -ánud- « take away... »
-ganú 3 « tale » : -ganud- « narrate »
-paká 9 « contest » : -pakan- « deny »
-pútá 9 « wound » : -pútad- « be hurt »
-cakú 11 « undergrowth » : -cakud- « weed »
-púmú 11, 10 (-u/-ú ?) « breath, rest » : -púmud- « breathe ».

In Proto-Bantu productivity must have been from nominal to verbal, although in the present-day languages the direction appears to be the reverse.

2.9. Deverbative bases.

Except perhaps -ik-, -am- and -at-, all of following suffixes are highly productive :

-į- (and -įc- ?) causative : -dim-į- « make (someone) cultivate »
-id- applicative : -dim-id- « cultivate for »
-ik-[1] impositive : -kʉk-ik- « put in kneeling position »
-ik-[2] neuter : -bón-ik- (-bónek-) « be in sight »
-am- stative : -kʉk-am- « be in kneeling position »
-an- reciprocal : -bón-an- « see each other »
(-ad- see 2.6)
-at- contactive : -kʉk-at- « sit on knees and heels »
-ú- passive : -dim-ú- « be cultivated »
-ud- tr. reversive : -gįd-ud- « break avoidance » (-gįd- « abstain »)
-uk- intr. reversive : -dįb-uk- « become unstopped » (-dįb- « stop »)

Some observations are required here.

1. The high tone of suffixes -į- and -ú- is set up tentatively, and in any case its manifestations seem to have been very much limited.

2. The absence of morphophonemes °e and °o in suffixes is worth noticing; this gives free space to the rule stated in 1.7.

3. The suffixes -ik-, -am-, (-at-), -ud- and -uk- apparently form a subsystem, in that they often appear with radicals which do not occur without a suffix : -égek- « put into leaning position », -égam- « be in ... », -égud- « take away from leaning position », -éguk- « get away from ... ».

4. For -id- used together with reflexive prefix -į-, see 6.6.

5. A verbal base can have more than one suffix, but such suffix sequences are difficult to illustrate with reconstructed bases, since these forms are productive and highly unstable. Some characteristics of suffix sequences can, however, be given : -ik-, -am-, (-ad-), -at- would occupy first position; -į- and -ú- have last position (even after prefinal and after C of -įde), and -ú- absolute last (even after -į-); a tentative and probably too strict order of possible succession is the following : (ad) at am/ik, ud/uk an id į ú.

6. The sequence °-V-ú- is manifested as /-Vbú-/, dial. /-Vgú-/.

7. Neuter -ik- has special limitations. It is found as a kind of potential with -bón- « see » and -úngʉ- « hear », and with a small class of radicals which is at the same time a semantic class (« verba destruendi ») : -át- « split », -bʉn- « break », -bʉnj- « tear », and doubtless some others.

NOMINAL DERIVATION

Derived nominals, with final

-į	3.1	-o	3.5
-íde	3.2	-ú	3.6
-é(e)	3.3	-ụ́	3.7
-a	3.4		

Complex nominals 3.8.
Compound nominals 3.9.

3.1. *With final -į.*

Stems consisting of base and -į are found mostly in classes 1 and 2, and indicate the agent. Reconstructed stems are :

-įb-į 1 « thief » : -įb- « steal »
-kó-į 1 « son-in-law » : -kó- « give bride-wealth »

There is at least one stem for which one ore several irregularities — either in Proto-Bantu or in later development — must be supposed : -bįad-į 1 « parent » (also, apparently, -dúad-į 1 « sick person »).

Some stems with final vowel /į/ in other classes are not readily analysed as derived :

-gedį 3 « current » : -ged- « flow »
-édį 3//15 « moon(shine) » : cp. -éd- « be white ».

See 3.41 for stems derived from bases having -į-.

3.2. *With final -íde.*

Stems in which a base is followed by a final -įde — or -íde, or -íd-į ? with tones LH or HL or HH ? — are used mainly in class 4, the noun indicating a way of doing :

-gendíde (-gendįdé...) 4 « gait » : -gend- « walk »
-dimídį (...) 4 « way of cultivating » : -dim- « cultivate ».

3.3. *With final -é(e).*

Stems in -é(e), indicating an action, are poorly attested, and no reconstruction can be cited. The available reconstructions with -e are of a different kind :

-dúme 1,2 « man » : -dum- « cohabit » (the verb seems to have had low tone);
-gobe T 9 « hook »; cp. -gob- T « bend »
-pete T 9 « ring »; cp. -pét- « bend » (?).

3.4. With final -a.

The data indicate that the derived stems in -a comprise several types of derivation, different as to underlying base, to final (-a, -á, -aá, -áa, etc.), and to class membership — each variety probably having its own shade of meaning. At present only two of these sub-types can be distinguished.

3.41. If a base ends in -ị- (« causative » suffix), there will be a final -a instead of a final -ị (the sequence -ị-ị seems to be excluded here); other characteristics are as with stems in -ị : membership in classes 1 and 2, and meaning of « agent ». Although this type has been identified, a more detailed reconstruction, with examples, cannot be offered as yet.

3.42. Some reconstructions point to stems in -a T, with the meaning « action ». The extant data do not allow a more precise formulation about tone, class membership or shade of meaning :

-dim-id-a T « Pleiades » : -dim-(id-) « cultivate (for) »
-dungud-id-a T « heart-burn » : -dungud- « burn »
-mịd-a T « nasal mucus » : -mịd- « blow the nose »
-dụmb-a T « smell » : -dụmb- « to smell »
-bád-a 5 « colour, (clear ?) spot »; cp. -bád- « shine ».

The stems -gumba 9 « barren woman » and -kụba 7 « breast » probably do not belong here; they are rather underived stems, and the corresponding verbs, which are very sparingly attcsted, must be late retrograde refections.

The stem -ịdimá 3 « darkness » is an isolated structure as compared with -ịd- « become dark ».

3.5. With final -o.

Simple bases and bases with suffix -id- (and -ị-?), followed by -o, constitute stems which appear in all classes except 1 and 2; these nouns indicate action, instrument, place, etc. The reconstructed stems show meanings which are more specialised than the meanings which the formation, as a productive type, will have had :

-dí-o « right (hand) » : -dí- « eat »
-dí-id-o « place or instrument for eating »
-ne-o « anus » : -ne- « defecate »
-kụ-o 11 « death » : -kụ- « die »
-gịd-o (3) « abstention » : -gịd- « refrain »
-ím-o 7 « stature » : -ím- « stand »
-bamb-o 11 « peg » : -bamb- « stretch (hide) »
-bajj-o 9 « axe » : -bajj- « carve »
-(g)amb-o 5 « word » : -(g)amb- « speak »
-dáad-id-o 3//7 « evening meal » : -dáad- « spend the night »
-mid-o 3 « throat » : -mid- « swallow ».

Without tonal reconstruction : -kig-am-id-o « head-rest » : -kig-am- « lean »; in the following cases, the relationship between the stem and a verbal base is not clear : -pedo T 9 « grinding stone »; -pépo 9 « cold wind » (: -peep- « blow » ?); -coko T 9//7 « point »; -tumbo T « belly... »; -dungo T « articulation ».

3.6. With final -ú.

Although some languages have a limited set of forms constituting a derivational type in -u/-ú, only one stem can be reconstructed at present : -kúdú « full grown, grown up, adult, mature, senior, respectable »; cp. -kúd- « grow up ». See also ambivalent derivation in 2.8.

3.7. With final -y̨.

Stems in -y̨ are adjectives; there is one firm reconstruction : -bod-y̨ « rotten » : -bod- « rot »; a second stem is less clear : -pí-u (u/ú/y̨/y̨ ?) « hot » : -pí- « burn ».

The noun with stem -ky̨my̨ (cl. 1 or 9 ?) « elder, important person, chief » can hardly be separated from –ky̨m- « be renowned »; but even if the derivational connection is a real one, this derived stem diverges from the regular type of adjectives in -y̨.

3.8. Complex nominals.

A complete nominal, e.g. the noun n-cí 9 « earth », can be preceded by a medial, e.g. -ɲa-; the two taken together are a nominal stem, here -ɲa-n-cí, which belongs to some class and is preceded by the appropriate prefix, unless the class be 1a (zero prefix); in class 1 : mu-ɲancí, in class 1a : ɲancí, both « owner of the country ». No rigorous reconstruction of the various medials has been tried, and it is doubtful whether it will ever be achieved, since the facts in the present-day languages offer little coherence. Here is a list of the medials which are suggested by the data as far as known : -ɲa-, -éɲé- (-éné-, -ɲéné-), -ina- (-ɪna-), -ca-, -cɪ-; most of these mean something like « owner of... », « having ... », although -cɪ- would rather be « belonging to ... ». The relationships obtaining between these medials and other forms whose meanings are « mother, father, self, resemble, like » will require special and careful study.

3.9. Compound stems.

The essential feature of a compound seems to be that it has two stems in what is otherwise treated as one word.

The most widespread type of compound stem consists of a full nominal (PN-F, e.g. tu-pía « fire ») preceded by a stem (-F, e.g. -kumí « girl »); the complete compound consists of prefix and compound stem : **ki-kumítupía « fire-fly ».

It is not very frequent for the first stem in the compound to be a nominal, except stem -(j)ána « child », which is often found with diminutive meaning, in such a way that we can tentatively ascribe the formation to Proto-Bantu, including perhaps the feature that the second member can be just a stem (not preceded by prefix) : **mu-ána(m)búdį « young of goat ».

In other compounds with nominal as first member, the frequence of a peculiar second member (-ntu « person », -kádį « woman », -dúme « man », -ána « child », -kúdú « grown up ») has led to a present-day situation in which these stems, without a prefix, are used more or less as suffixes. The lack of particular features in these correspondences prevents us from setting up this type as reconstruction, since it can be easily understood as independent parallel development. Some languages point to bu-díą « vassalage » and bu-kó-o « in-law relationship » as second members.

Rather than being a nominal, the first member is a verbal stem with final -a (low); this type is so widespread and so particular that it can be said to constitute a firm reconstruction : **(ki)-búmba-kajųmbá (« house-moulder »), « mason wasp »; **(mu)-dámba-bįdía « cook », **(n)-kíta-midimo « work-doer », etc. In these examples, the second member is an analog of an object vis à vis the verbal stem (kukítá midimo « to do works ») but in accordance with 9.4 it may also be an analog of a subject : **(mu)-píta-nkíma « sp. tree » [« (where) the monkeys pass »].

Other types, e.g. connective or connective-stem (5.3), or adjective (4.9) preceded by noun-stem (S-pp-a-S, S-a-S, S-A) are not, for the time being, within reach of reconstruction.

FLEXION

One of the subsystems in inflexion is present in practically every major word category (nominal, pronominal, verbal...), and therefore it will be discussed in the present section. It has predominant — but not exclusive — aspects, which can be indicated by the following three catch words : class, prefix and agreement (or concord). As for *class*, the most conspicuous part of the system is that based on purely formal valence classes of noun stems; but on the same footing as these there are morpho-semantic classes in which the semantic components are « number » and « person ». These distinctions are shown mostly by *prefixes*, but in some cases by forms which are rather suffixes than prefixes, or even rather words than affixes. The most systematic manifestation of these distinctions is by *agreement* (or concord) with nouns, but in part it is to be found in the noun prefix itself.

Each kind of prefix appears in well defined classes of words :

nominal prefix (NP) in nouns, locatives and adjectives;

numeral prefix (EP) in words for « 1-5 » and « how many »;

pronominal prefix (PP) in substitutives, connectives, possessives, demonstratives, determinatives, (« other », « which », etc.) and relative verb forms;

verbal initial prefix (VP) in absolutive verb forms;

verbal pre-radical prefix (infix) in verb forms; the infix has, besides persons and classes, a reflexive form.

The prefixes appear in four tone types :

nominal prefix is low;
numeral and pronominal prefix is high, except in cl. 1 and 9;
verbal prefix is low for persons (1st and 2nd, sg. and pl.), high for classes (cl. 1, 2, 3...);
infix is low for complete cl. 1 (1st sg., 2nd sg., cl. 1), high for all other forms (1st pl., 2nd pl., cl. 2, 3, 4..., reflexive).

In the following prefix table, a dash indicates identity with the form given in the preceding column :

Classes	NP	EP	PP	VP			Infix		
				I	II	III	I	II	III
1	mu	(u ?)	ju	n	u	u, a	n	ku	mu
2	ba	—	—	tu	mu	ba	tu	mu	ba
3	mu	(u ?)	gu			—			—
4	mi	(i ?)	gi			—			—
5	i	di	—			—			—
6	ma	(a ?)	ga			—			—
7	ki	—	—			—			—
8	bi	—	—			—			—
9	n	(i ?)	ji			—			—
10	n	i	ji			—			—
11	du	—	—			—			—
12	ka	—	—			—			—
13	tu	—	—			—			—
14	bu	—	—			—			—
15	ku	—	—			—			—
16	pa	—	—			—			—
17	ku	—	—			—			—
18	mu	—	—			—			—
19	pi	—	—			—			—
(24)	(i)		(—)			?			?

Another presentation of the same sets of prefixes (numeral prefix given in cl. 10 only) is as follows :

	Persons (VP and infix)		Classes					
	First	Second						
sg.	n	u	1	NP	mu			
				PP	ju			
				VP	(j)u,	subj. a		
		infix ku		infix	mu			
pl.	tu	mu	2		ba			
			3		gu,		NP	mu
			4		gi,			mi
			5		di			į
			6		ga			ma
			7		ki			
			8		bį			
			9		ji			n
			10		ji,	EP į,	NP	n
			11		du			
			12		ka			
			13		tu			
			14		bu			
			15		ku			
			16		pa			
			17		ku			
			18		mu			
			19		pį			
			(24)		(i)			

These prefixes do not all have, as reconstructions, the same value; some present variants, some are not as well attested as others, and some await further investigation. In this connection, a number of observations are in

order : 1° Perhaps n- (1st sg. infix and VP, and NP of cl. 9 and 10) will have to be replaced by ɲ-; much will depend on the future findings about vowel or /j/ as stem initial in nouns. 2° There is no clear indication about an initial consonant in 2nd p. sg. VP u-, no more than in cl. 1 VP ú-, á-. 3° The infix 2nd pl. -mú- may have been -bá- in part of the domain. 4° Cl. 4 NP mi- seems to have had a dialectal variant mį-; cl. 4 PP and VP gí- may have been ji-. 5° Cl. 5 NP į- and PP or VP di-, according to a number of languages, would have been dį-. 6° The only formal difference between cl. 15 and cl. 17 consists in membership in distinct sets of forms : 15, paired with 6, goes with cl. 1-14; 17 belongs with 16 and 18 to different constructions. 7° Cl. 24 is set up on a geographically restricted basis; its exact form (i-/į-/e- ?) needs determining. 8° According to the data in some languages, the pronominal prefix in cl. 4, and even in cl. 18, would have had the same low tone as cl. 1 and 9. 9° Reconstruction of cl. 20-23 is not established in any convincing way. 10° Absence of /e o/ in prefixes is noteworthy; but absence of /ʉ/ may be fortuitous, since /į/ is sure for cl. 5, 10 and 19.

The augment, appearing as a partial pre-doubling of nominal and pronominal prefixes in many languages, would seem to have been a separate word, identical in form with the pronominal prefix, and used as a weak demonstrative, or rather anaphoric, in affirmative non-predicative constructions, with definite meaning : ju muntu « the person », bá bantu « the persons », ji mbúa « the dog », jį mbúa « the dogs », etc. [but muntu « (it is) a person », etc.]. This question will have to be examined closely as soon as more and better evidence becomes available.

NOMINAL FORMS

General 4.1.

Noun :

4.1. Forms with nominal prefix include nouns, locatives and adjectives; the prefix, with low tone, is followed by a stem in nouns and adjectives, also in a few nounal locatives, but by a full word in locatives; the stem is either unanalysable or articulated (derived, complex, or compounded, see 3).

A number of nominal stems which in the present-day languages are monosyllabic — with or without a semivowel — will have to be set up with double vowel or vowel sequence : -goị « leopard », -túị « ear », -túe « head », -táị 6 « saliva », -buú 9 « mosquito », -toó « small », -kée « few », -daị « long », -bíi « bad »; a good deal of precision work remains to be done here. For derived stems the task is of course easier : -kụ́-o 11 « death », -kó-ị 1 « son-in-law » (-kụ́- « die », -kó- « give bridewealth »), etc.

4.2. In nouns, there is a subdivision of cl. 1, viz. cl. 1a, with zero prefix : taatá « my father », (ị)cóo « your father », maamá « my mother », ịbá « husband »; this sub-class includes kinship terms, personal names, and the word for « who » (náị, ndáị...). In cl. 2, the same stems may have had a special prefix 2b (baa- or baa´- ?). — In cl. 10 a number of languages would seem to reflect †jị́-n- (instead of n-), but this double prefix is probably an innovation favoured by the advantage of greater clarity, since 10 †jị́-n- is sharply differentiated from 9 n-; perhaps †jị́-n- is just another instance of augment, but no more can be said without extensive investigation.

There are cases of relative uncertainty about the limit between prefix and stem :

-bíị 6; 13 « excrements », rather than †-tubíị;
-dóo 7; 13 « sleep, night, camping », rather than †-tudóo;
-tá-a 8 « war », 14 « bow », rather than †-(b)ịtáa.

Similar cases may be found in -já 12 « outside, courtyard, village yard, village, home », rather than †-kajá 5 (?) « home », and in some words of class 14 (« mushroom », « fur, feathers », « brain, marrow, spine, back », « fear »).

4.3. *Class pairing in nouns.*

Noun stems usually appear in two classes, one « singular », the other « plural », e.g. 1 mu-ntu « person », 2 ba-ntu « persons ». The pairs which can be reconstructed are :

1,2 3,4 5,6 7,8 9,10 11,10 12,13 14,6 15,6; probably also 19,13.

The following lists present a choice of noun stems for which there are plausible reconstructions as to phonemes and membership in a definite class pair :

1,2	-ntu	some (person)	-ganga	healer	-genị	guest
	-túa (-tóa ?)	pigmy	-jána	child	-kóị	son-in-law
	-kụ́mụ́ (/9, 10 ?)	chief	-kádị́	woman	-dúme	man

(and some other stems for which the reconstructions are not yet satisfactory : « chief (-jámí); master, owner; male slave; barren woman; grand-child; sister's child; brother-in-law; co-similar; co-polar; friend, relative »)

1a,2 taatá, jįcó, jįcé « my, your, his father », maamá, ɲoko, nįna « my, your, his mother » (less certain reconstructions for « grand-parent, father's sister, mother's brother, senior, junior »)

3,4	-tí	tree	-dį (-įdį ?)	root	-godį́	liana
	-mudi	torch	-píɲį	handle	-dido	fire
	-bidi	body	-tíma	heart	-gongo	back
	-túe	head	-nua	mouth	-kóno	forearm
	-nue	finger	-domo	lip	-kída	tail
	-jojo	life...	-dįmu	spirit	-dį́go	burden
	-didu	limit	-gį	village	-gunda	cultivated ground
	-jáka	year	-gųba	bellows	-tádá	stage

(less clear for « fig tree; baobab; bamboo; ricinus; bundle; mat; arrow; salt; smoke; ashes; soot; sinew...; termite; goodness; chief; day(light); darkness; rainy season; heap »)

5,6	-kúmį	ten	-gudu	above, sky	-júba	sun
	-tų	cloud	-bu(j)e	stone	-tábi	branch
	-táma	cheek	-jįco	eye	-jį́no	tooth
	-béede	breast	-bega	shoulder	-bųmo	belly
	-táko	buttocks	-páca	twins	-jímį	embryo, pregnancy
	-jį́ko	hearth	-káda	coal	-gongá	spear
	-tų́mo	spear	-júį	word, voice	-jį́jįna	name

(less clear for « spot, colour; earth, dust; crack; foam; flower; egg; neck; palm of hand; articulation; wing; hearth-stone; (men's) house; courtyard; debt, case, trial; fur, feathers »)

7,8	-jįná	hole, pit	-caká	bush	-kédé	(k/c) frog
	-jímo	stature	-dedų	beard	-dédų	chin
	-kų́ba	breast	-bedo	thigh	-dóo	night...

(less clear for « hand-palm; bundle; point; nest, house; doorway; ordeal; mortar »)

9,10	-cí	land, ground	-bų́da	rain	-ɲama	animal, meat
	-kómbá	snail	-jénjé	cockroach	-gį	fly
	-gįge	locust	-dá	louse	-kádá	crab
	-goįna	crocodile	-gandú	crocodile	-jóka (j/ɲ)	snake
	-kų́dų	tortoise	-junį (j/ɲ, u/o) bird			
	-kánga	guinea fowl	-kuadé	partridge	-púngú	eagle
	-cų́i	fish	-gumbá	porcupine	-beba	rat
	-padá	antelope	-jobe	antelope	-ɲáti	buffalo
	-bogó	buffalo	-tuįga	giraffe	-jogų	elephant
	-gųbú	hippopotamus	-pį́tį́	hyena	-páka	wildcat
	-goį	leopard	-kíma	monkey	-kį́ngó	neck

-túdu	breast, chest	-da	belly, bowels		
-pígo	kidney	-jóngo	gall	-bodó	penis
-jada	hunger	-cónį	shame	-jungú	cooking pot
-cápo	bag	-jugú	groundnut	-dúngú	pepper
-búa	dog	-búdį	goat	-péné	goat
-gudu(be)	pig	-gú	sheep	-gombe	bovine
-jida	path	-kápį	oar	-dúudú	shouting
-goma	drum	-bídá	grave		

(less clear data for : « lake — lightning — grass — ostrich — front — behind — strength — thirst — ring — point — hook — dirt, soot — outside — mush — cloth — seed — vegetables — calf — hammer — shield — debt »)

11,10	-me	dew...	-jombe	monitor	-cádá	feather
	-dímį	tongue	-bángá	jaw	-badų	rib
	-banjí	side	-bųi	grey hair	-kįge	eye-brow
	-jáda	nail, claw	-jajo	sole	-kóbá	hide
	-bidó	speed	-kú(n)į	firewood	-jįgi	door

(less clear data for « hair — river — spark — family (/home-stead) — bean »)

12,13	-já	village...	-pí-a	fire	-dóo	13 sleep...
	-bįį	13 (and 6) excrements				

14,6	-tįku, -tųku	night, day	-dimbo	birdlime
	-boga, -joba	mushroom	-játo	ˇboat
	-jojá (and -bogá)	fur, feathers		
	-(b)óba	fear	-tá-a	bow

(less clear for « life — brain, marrow, spine »)

15,6	-bóko	arm	-gudu	leg	-jápa	armpit
	-dųi	knee	-túį	ear	-jédį	moonshine

4.4. One-class noun stems.

The main series of stems appearing exclusively in one primary class, or nearly so, is in class 6 : -įji (and variants) « water », -gįdá « blood », -įcodį « tears », -táį « saliva », -cu « urine », -bįį (also 13) « excrements », -tįka « cold period » (less clear for « nasal mucus — pus, matter — beer — palm wine — oil — fat — milk — crossing (of paths) — sorrow »). Part of this series constitutes a loose semantic subclass, the « liquids ».

A number of stems in cl. 14 may have been one-class stems, not being used in cl. 6 as plurals (« birdlime, mushroom, fur, brain, life, fear »).

Also the infinitive of cl. 15 is a one-class noun.

4.5. *Secundary class usage.*

A stem normally appearing in a given pair of classes could be used in cl. 12 and 13 with diminutive meaning, also in cl. 19 with meaning « very small » : 5 ịjanị « leaf », 6 majanị « leaves », but kajanị « small leaf », tujanị « small leaves », pịjanị « very small leaves »; similarly for e.g. 9, 10 mbúa « dog(s) », kabúa « small dog », etc.

In the same way, there must have been augmentatives having as secundary classes either 5, 6 or 7, 8; no firm reconstruction has been attained as yet.

A clearer case is the secundary use of cl. 14 with meaning of « quality, state, abstraction » : 1 mujána, 2 bajána « child(ren) » and 14 bujána « childhood ».

Other such uses, including some with derogative meaning, must have existed, but no satisfactory reconstruction has been worked out yet.

4.6. *Locative nouns.*

A number of semantically undeterminate noun stems appear in the three locative classes 16-18, with locative prefix and locative agreements. In most cases the same stems are met with in other classes as well, chiefly 7, 8 (« thing(s) ») and even 1, 2 (« person(s) »). The most widespread among these stems is -ntu « some », yielding not only mu-ntu « some (person) », pl. bantu, and ki-ntu « some (thing) », pl. bị-ntu, but also pa-ntu, ku-ntu, mu-ntu, the last three meaning « somewhere » or « some place », with connotations 16 pa- « on (surface) », 17 ku- « to, from, on (top) », 18 mu- « in ». Other such stems are -(j)úma, -(j)íná, and -(j)ido T; more research is needed on these very peculiar forms.

These indefinite nouns (including locative nouns) are matched by a set which looks like a fragmentary system of interrogative nouns with stem -ị : 7 ki-ị « what », 16 pa-ị (17 ku-ị, 18 mu-ị) « where »; but 1*a* n(d)áị « who », if it belongs here, shows an element n(d)á- which is not attested otherwise (also n(d)ánị).

4.7. *Nouns with suffix.* .

The eastern languages suggest a suffix (or post-final), perhaps -ịni (or -inị ?), which could be added to any noun; the suffixed form was treated in agreement as belonging to one of the three locative classes 16, 17 and 18, each with its specific meaning. It is not clear whether the presence of the suffix required or excluded simultaneous presence of one of the locative (pre-)prefixes.

A number of languages have nouns with possessive suffixes, or with possessive stems used as suffixes; no reconstruction of such forms can be submitted.

4.8. Locatives.

Any form having a nominal (or even a pronominal ?) prefix can be preceded by one of the three prefixes 16 pa-, 17 ku-, 18 mu-; in that case these prefixes are in pre-initial position (contrast 4.6) :

16 pa-mu-bidi	on the body	pa-mi-bidi	on the bodies
17 ku-mu-bidi	to the body		
18 mu-mu-bidi	in the body		

Nouns without a prefix (see cl. 1a in 4.2) do not appear in locatives (5.3, 9.5).

A locative class 24 i-, used with a restricted set of nouns, is suggested by N.E. languages only (in fact, the « Hima » languages); not enough has been worked out comparatively about this formation.

In many languages, a limited series of nouns is used mainly or exclusively in locatives, these in turn often being followed by a connective (5.3), with meanings suggested by translations like « above, under, in front, behind, before, after, inside, outside, near to, beside, in the middle, up stream, down stream, between, etc. »; no reconstruction can be offered as yet.

4.9. Adjectives.

Adjectives have stems occurring with nominal prefixes — mainly in concord with a noun — in all classes. Reconstructed simple stems are :

-daį	« long »	-toó	« small, young »
-pokų	« blind »	-piá	« new »
-dįto	« heavy »		
-gįma	« entire »		
-kée	« small »	-tádí	« long »
-kádi	« fierce »	-įpí, -kųpí	« short »
-néne	« big »	-túpú	« vain » (see 8.2)
-bíi	« bad »	-(j)íngí (í/į ?)	« many »
-bíci	« fresh »	-kádį	« female »

The stems -dúme « male », -(j)įdo « black », and -(j)édu « white » are rather derivatives belonging to a more or less isolated formation than simple stems.

Some stems occur with a relatively fixed prefix independently of all agreement :

17 ku-daį	« far »
16 pa-įpí, pa-kųpí	« near » (followed by na- « with »)
12 (?) ka-daį	« long ago »

The reconstructions giving pronominal prefix for the adjective instead of nominal prefix lack any firm foundation.

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NUMERAL AND PRONOMINAL FORMS

Numerals 5.1.

Pronominals :

substitutive	5.2.
connective	5.3.
possessive	5.4.
demonstrative	5.5.
determinative	5.6.
relative verb forms	5.7.

5.1. *Numerals.*

Only the five first cardinal numbers, as also an interrogative for number, are numerals, with special concord prefix (EP), the other numbers being either nouns or particles.

The stems, in provisional reconstruction, are :

-moį (and many variants)
-badí (W.); L-bidí, H-bídí (E.) (or : -badí (W.), -̃bidí (E)
-tátu
-naį
-táano (/-táaánóo ?)
-ngá (á/áa ?) « how many ».

In class 10 the prefix has to be set up as į- (contrast PP jį-), with a peculiar representation in at least two stems : įcátu « three », įcáano « five » (and įɲaį « four » ?). Perhaps comparable reconstructions are necessary for some other classes : 3 ú- (PP gú-), 4 í- (PP gí-), 6 á- (PP gá-).

The word for « many » seems to have been an adjective rather than a numeral (-(j)íngí ?).

5.2. *Substitutive.*

Although the overall system is clear, the individual forms cannot be set up. A provisional and arbitrarily selected reconstruction out of a set of four or five possibilities will give an idea of the general lay-out :

į-n-e	« I, me »	u-e	« you (sg.) »	cl. 1	u-é
į-cú-e	« we, us »	į-ɲú-e	« you (pl.) »	cl. 2	bá-o
				cl. 3	gú-o
				etc. (viz. PP-o)	
				cl. 16	pá-o (póo)
				cl. 17	kú-o (kóo)
				cl. 18	mú-o (móo)

A final vowel -o in cl. 2-18, but -e in the first five forms (persons and cl. 1), would seem to be clearly demanded by the data attested.

Probably a more extensive study will lead to more than one reconstruction for at least some of the forms, as dialectal variations within Proto-Bantu : túe beside ị̀cúe, múe beside ị̀ɲúe, etc.

Substitutives extended by means of -nce (L ?) and -nka (L ?) seem to have been the normal words with meaning « all » and « alone »; their attestation is clearest in languages reflecting substitutives like túé « we », múé « you (pl.) », etc. : túé-nce « all of us », múé-nce « all of you », 2 b(á)ó-nce « all of them », 4 gíó-nce « all of them », etc.; ị̀ne-nka « I alone », ue-nka « you (sg.) alone », ué-nka « he/she alone », 3 gúó-nka « it alone ».

5.3. *Connective.*

A connective is a form consisting of three parts : a pronominal prefix, a link element -˘a-, and a complete non-verbal. The pronominal prefix has its usual tones (high except in cl. 1 and 9); the link element has the same tone as the PP (tonal harmony); the non-verbal may be one without a prefix. It is not clear whether pp-˘a should be considered as a word (the connective then being two words), or if -˘a- and the following non-verbal taken together are a stem. The PP is of the same class as the head noun which precedes the connective, or which is being replaced by it. Examples, the last two with included locative :

1	(muána) jua(-)mukádị̀	« the woman's child »
2	(baána) báá(-)mukádị̀	pl.
9	(njida) jia(-)ku-mugị̀	« the path to the village »
10	(njida) jị̀á(-)ku-mugị̀ .	pl.

According to very specific data found in two languages, final HL in the head noun was HH if followed by H initial of a connective : baáná báá-mukádị̀; the situation was the same if the noun was followed by a relative verb form.

There are some points of similarity between PP-˘a and a relative verb form (7.5) : pronominal prefix, preceding HL represented as HH before H, final vowel in tone harmony with the initial, close link with preceding noun.

As a normal construction a connective could be used in one of the locative classes without a preceding locative; this is one of the ways for a prefixless noun (cl. 1a) to be used in a locative construction (cp. 4.8) : kúá-taatá « to my father's ».

Connectives without the connecting vowel -˘a- are used with some frequency; it is not clear yet whether this type is recent or not, but an answer may eventually be found by comparing these data with the areas of presence or absence of formatives -a- and -á- in conjugation.

5.4. Possessive.

The possessive has a pronominal prefix and a stem consisting of a link vowel -a- and a form which resembles the substitutive, although in most of the cases it is not identical with it; it is not clear whether we should set up -ᵃa- or -á-; the attested forms are so varied that it will not be easy to propose one or even two or three different reconstructions to account for the present-day forms. The following is extremely tentative, and rather meant to give an idea of one of the possibilities than a result :

-ání	« my »	-áú	« your »	1 -ájé
-áⱥtú	« our »	-áⱥɲú	« your »	2 -ábó
				3 -águó
				4 -águó,
				etc. : -á-pp-ó

5.5. Demonstrative.

Five types, one of them partly an anaphoric, seem to be within reach of reconstruction; in two of them, there is a final element which is practically identical with the pronominal prefix, and which we will here symblize as PP, although it is not in prefixal position; the vowel symbolized by V was probably the same as that of the following element (the PP). Formulae for the types are as follows :

PP « that, the » (a weak anaphoric)
V-PP (LL ?) « this » (as opposed to PP-día)
PP-nóo « this (near me) » (as opposed to V-PP-o)
V-PP-o (LLL ?) « that (near you) », « that (mentioned) »
PP-día « that (over there) ».

In the various classes we will have :

1 ju	2 bá	3 gú	4 gí	... 9 ji
uju	aba	ugu	igi	iji
junóo	bánóo	gúnóo	gínóo	jinóo
ujuo	ab(a)o	uguo	igio	ijio
judía	bádía	gúdía	gídía	jidía

As attested by several languages, there will have been special presentative forms (« here/there is ... »), but no reconstruction has been achieved yet.

5.6. Determinative.

Words with pronominal prefix and a stem not belonging to any particular set of stems include those for « other » and « which ». No good reconstruction is possible at the moment for the first (the most widespread stems are -(i)ngi, -mbi, -ndi T); the second is -nⱥ.

5.7. *Relative verb forms.*

These all begin with pronominal prefix; further characteristics will be given in 7.5.

VERB ELEMENTS

Pre-initial   6.1.
Initial   6.2.
Post-initial   6.3.
Formative   6.4.
Limitative   6.5
Infix   6.6.1.
Radical   6.6.2,   suffix   6.6.3.
Pre-final   6.7.
Final   6.8.
Post-final   6.9.

The verb, including nominal and pronominal verb forms (mixed forms), exhibits a clear structure with definable elements occurring in a fixed order.

6.1. *Pre-initial.*

The sequence consisting of pre-initial and initial has tone sequence low-high, whatever the tones of the two elements involved. Two types are extant :

1. indirect relative, with PP preceding initial VP : kutúdí « where we are »; (°LH kú-tu-di˜); see 7.5;

2. negative absolutive, with ka- (or ta-, or some other form ?) preceding initial VP : katúdi « we are not » (°LH ka-tu-di); see 7.6, where also the divergent treatment of ka-VP- in cl. 1 is discussed.

6.2. *Initial.*

Normally, the initial is the verbal prefix, with low tone for persons, but high tone for classes (see the forms in 4.8); after pre-initial, all prefixes are high (6.1).

In the imperative (7.2) there is no prefix (or : zero prefix). The infinitive (7.1) has nominal prefix. The initial in direct relative forms (7.5) is the pronominal prefix.

6.3. *Post-initial.*

In infinitive, subjunctive and relative verb forms, the negative element follows the prefix; possible reconstructions are -tá- (infinitive, relative) and -tį- (subjunctive).

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6.4. Formative.

Although a wealth of formatives is reported for many languages, very few can be reconstructed with any plausibility. Judging by the eastern languages, the clearest cases are :

-a-	« recent » (to-day...)
-á-	« preterite » (yesterday...)
-da-	« disjunct »
-ngá-	« conditional »
(-ka-	« future »; probably rather a limitative, see 6.5)

Even these few are not firm reconstructions, -a- and -á- often being attested in a system with a three-way distinction : « recent, preterite, remote », in which -a- may be « preterite », and -á- « remote » or even « recent ».

6.5. Limitative.

A special position between formative and infix is attested in a limited number of languages; the result is that little can be said about proto-forms occurring in that position. But the same forms can probably be identified through their co-occurrence with -di, « to be », which in general cannot have formatives. Three tentative reconstructions are :

-ka-	motional (« go to do... »)
-ka-	T inceptive (« already; not yet »)
-kí-	perstitive (« still; no more »)

The relationship between -ká-, -ka- and an often attested near homophone formative with meaning « and (he did...) » (subsecutive) is not clear.

6.6. Infix.

The term infix is here taken according to its wider definition, viz. as an element which occurs (predominantly or exclusively) within the word; but the application of the term is restricted, following an established usage in Bantu studies, to the affix in preradical position. The infix is used as a substitute of a noun which, in fuller but otherwise comparable constructions, occurs after the verb (object relationship); the replaced noun is not present in the context in the case of personal infixes. The forms, with their tones, are :

-n-	« me »	-ku-	« you (sg.) »	1 -mu-	«him, her »
-tú-	« us »	-mú-	« you (pl.) »	2 -bá-	« them »
				3 -gú-	« it »
				4 -gí-	« them », etc.

-í- (-jí-? -jíí-?)
reflexive

the same as PP or VP but
all high

The tones are thus seen to be low in full class 1, but high elsewhere; the forms which differ segmentally from the prefixes (PP or VP) are 2nd p. sg. and cl. 1; in addition to the categories found in the prefixes, the infix has a reflexive, used with 1st and 2nd person as well as with 3rd. A number of central languages have a front vowel (i/e) before the high toned forms, (-itú-, etc.), but nothing definite can as yet be said about the time depth of this phenomenon. In part of the domain (N.-E.), a variant -bá- for 2nd p. pl. is attested as a homophone of -bá- « them ».

In a verb form there may be more than one infix, the nearest to the radical corresponding to the object nearest to the verb in comparable constructions (or : the last infix corresponds to the first object); however, reflexive -į-, which is used to refer to all persons and classes, is always last. Reflexive -į- used together with applicative suffix -id- entails a meaning illustrated by translations like « act on one's own initiative, responsability, with one's own means ».

The presence of an infix determines special tonal phenomena in some verb forms; see 7.2-3.

6.6.2-3. Radical and suffix.

These two kinds of elements were discussed in 3; taken together they constitute the (verbal) base. A morphophonologic rule applying to base vowels was stated in 1.7. The tonal rule applying to all base vowels (i.e. extensions, whether radical expansions or suffixes, and including a pre-final, if any) is as follows : extensions, except probably -į- and -ú-, have a low morphotoneme, but this is represented as high if followed by a non-relative high morphotoneme of a final element, without a low morphotoneme intervening (e.g. -įdé or -įde, but not -įdé) : for « non-relative », see 7.5. Example : bábįįpíkídáné « they should cook it for each other » (°bá-bį-jįpik-id-an-é; cp. kujįpikidana « to cook for each other »).

6.7. *Pre-final.*

An element -ag- (and variant -ang- ?) is largely attested; its meaning, ranging from « imperfective » to « repetitive » or « habitual », is difficult to state more exactly for the proto-period. Some languages suggest rather a post-final -(n)ga, but this looks rather like a relatively recent reshaping. Tonally the prefinal is treated as an extension (6.6.2-3).

6.8. *Final.*

Although this is a rather stable set of elements, their reconstruction is not sufficiently advanced, especially as regards tone. The following are given without tone :

-a	in most forms
-įde	« past »; « perfective »
-iite (-įįte ?)	(« present perfective » ?)
-e	subjunctive
-i (?)	negative

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Variants, perhaps regional, of -ɉde may have been such forms as -ɉe, -ɉ, unless these be recent phonic reductions of -ɉde.

Very many languages attest an irregularity occurring in the sequence -bón-ɉde, with -bón- « see ».

6.9. Post-final.

One such element can be established : -nɉ (and regional variant -ɉ) in the plural of the imperative.

VERB TENSES

Infinitive   7.1.

Imperative   7.2.

Subjunctive   7.3.

Other tenses   7.4.

Relative tenses   7.5.

Negative tenses   7.6.

Since conjugation is one of the chief points of difference between any two Bantu languages, even if closely related otherwise, it is not surprising to find little scope for reconstruction in this field; progress here will require very detailed study, taking full account of tonal phenomena. This is also why the comparative study of formative and final elements — the two hinges of conjugation (6.4 and 6.8) — yields so little direct result. The clearest cases of tenses which can be reconstructed are : infinitive, imperative and subjunctive, which will be treated first.

7.1. *Infinitive.*

The infinitive has a nominal prefix but a verbal stem with final -a; this tense, (NP-   -a), is rather a noun by virtue of its prefix and through part of its syntactic uses, but also a verb by its stem, its full possibility of having infixes, and by some of its syntactic valences.

The nominal prefix, with low tone, is mostly of cl. 15 ku-; some languages point to a second infinitive with NP 5 ɉ-, and a few have only this; classes 9 n- and 14 bu- seem to be innovations.

The final element has to be set up as -a (low) or -á... (with metatony : high if an object follows, low otherwise). At least one language postulates the characteristic contrast (ku-   -á...), but (ɉ-   -a).

A form (ka-   -a), used after verbs of motion, is fairly widespread; ka- rather suggests a connection with the « motional » limitative -ka- than with cl. 12. The whole question is very involved.

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7.2. Imperative.

As shown by a great number of clear correspondences, the structure of the imperative should be set up as (O- ˟-á) : zero prefix; radical with its own tone; extensions, if any, with tonal contrast to the radical; and high final -á :

dimídá (-dim-) « cultivate for... »   túmidá (-túm-)   « send for... »

If there is an infix (in this case a preradical object prefix), the structure is (O-I-   -ée) : zero prefix; infix and radical both with inherent tone; extensions high as displaying tonal harmony with the first part of the final -ée :

| mudimídée | « cultivate for him » | mutúmídée | « send for him » |
| bádimídée | « cultivate for them » | bátúmídée | « send for them » |

In the case of 1st person singular infix, however, the final is -á (or -áa ?) :

ndimídá(a) « cultivate for me »   ntúmídá(a) « send for me ».

7.3. Subjunctive.

An overwhelming number of testimonies ensure the formula (H-L ... L-é) : high prefix, low radical, low extensions, high final -é :

| túdimidé | « let us cultivate... » | tútumidé | « let us send... » |
| bádimidé | « let them... » | bátumidé | « let them... » |

The tonal profile is thus seen to be (¯ – – ··· ¯) in every case.

With infix, the structure is again different, but strikingly similar to that of the imperative with an infix : (H-I-   -ée), the difference being in the presence of a high prefix only :

túmudimídée	túmutúmídée
túbádimídée	túbátúmídée
bábádimídée	bábátúmídée
« let them cultivate for them »	« let them send for them »

7.4. Other tenses.

Further non-relative affirmative tense forms are difficult to reconstruct; all that can be done for the time being is to indicate some probabilities. Judging by the present-day languages, Proto-Bantu must have had a highly structured tense-system; unlike the concord system, however, conjugation apparently is an unstable system in Bantu : at present it differs from language to language, and this leads us to the conclusion that many changes must have occurred since the proto-period, such as to veil for us the initial situation which we seek to reconstruct.

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The following list of tense formulae, each giving a formative and a final, are intended as illustrating guesses rather than as real reconstructions. Present 2 would be a tense which can be followed by pause (if there is an object, then there is no special relationship between the verb and the object), whereas present 1 indicates a special relationship between the verb and the object word (or between the fact expressed by the verb and the situational element indicated by the object word; the latter must, by implication, always be present).

(-a-	-a)	recent ipf.
(-á-	-a)	preterite ipf.
(-a	-ĳdé)	recent pf.
(-á-	-ĳde)	pret. pf.
(-da-	-a)	pres. 2 (ipf.)
(	-a)	pres. 1 (ipf.)
(-ka-	-a)	fut.; subsec.
(-nga-	-a)	condit.

A number of languages seems to postulate conjunctive tenses; these are characterised by an initial high tone (not conflicting with the prefixal tone ?), and are used as special verb form of otherwise unmarked subordinated clauses (also after auxiliaries).

7.5. *Relative tenses.*

Relative verb forms all begin with pronominal prefix; as a result, they are mixed forms, viz. pronomino-verbals. A second characteristic is, that their final vowel, but not the extensional stretch, exhibits tonal harmony with the initial element, which can be either the pronominal prefix (in direct relative) or the verbal prefix (preceded by pre-initial pronominal prefix, with sequence PP-VP- as low-high, in indirect relative). There may have been other characteristics, but if so, they are not within reach of reconstruction. The examples which follow are intended rather as illustrations of the given two characteristics than as justified reconstructions; in particular, they will be built on a non-relative tense (-a), which is not sufficiently warranted.

Direct relative, used for (1) subject relative, (2) object relative with free subject in 3rd person :

muntu judima ĳpía, a person who cultivates (his) garden (PP cl. 1 is L, and hence -a is L);

bantu bádimá ĳpía, pl. (-á agreeing tonally with PP cl. 2 bá-);

muedé gútĳgadá, the knife which remains (PP cl. 3 gú-, whence -á);

miedé gitĳgada, pl. (PP cl. 4 gi-, whence -a);

ĳpía dídimá muntu/bantu, the garden which the person(s) cultivate(s) («objective» use of direct relative, with H PP cl. 5 dí-, whence high final -á).

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Indirect relative, used for object relative with bound subject in 1st or 2nd person (and probably also 3rd person) :

> muntu jutúdimidá įpía, the person for whom we cultivate the garden (here, and similarly in the examples which follow, -á is in tonal harmony with -tú-, which is H because preceded by a pre-initial);
>
> bantu batúdimidá įpía, pl. (sequence PP-VP- is LH);
>
> muntu jubádimidá įpía, ... for whom they...
>
> bantu babádimidá...

A construction like muntu judimida bagenį seems to have been ambiguous : either « the person who cultivates for the strangers » (subjective) or « the person for whom the strangers cultivate » (objective); similarly for other classes : bantu bádimidá mugenį, etc.

7.6. Negative tenses.

Negative tenses in Proto-Bantu may have differed radically from affirmative tenses (as in some languages), or they may have been derivable from them in a regular way (as in some other languages); it is not possible as yet to present any definite conclusions. Some characteristics stand out more or less clearly : (1) the negative preinitials (with LH-) and postinitials mentioned in 6.1 and 6.3; (2) the negative final -i (T ?) (6.8); (3) a special rule concerning the sequence preinitial-initial in full class 1, which is clearly attested in many languages, although the exact form of the preinitial is relatively unstable; taking preinitial ka- :

cí- (/kí-)	« I... »	kú-	« you... »	1 ká-
katú-	« we... »	kamú	« you »	2 kabá-
				3 kagú-, etc.

The three forms cí-, kú-, ká- (or, taking preinitial ta-, the three forms cí-, tú-, tá-) present a contraction which is absent in all other classes.

The use of a negative preinitial seems to be confined to « indicative » absolutive (= non-relative) tenses, whereas other tenses rather had a postinitial : infinitive, subjunctive, relatives (and conjunctives ?).

By way of illustration, a highly tentative reconstruction of a few negative tenses is here presented :

(ku-tá-	-a) (-a/á ?)	infinitive
(H-tį-	-e) (-e/-é ?)	subjunctive
(ka|H-	-i) (-i/-í ?)	« present », « general »
(PP-tá-	-~a)	direct relative
(ka|H-a/á-	-įdé)	past (perfective ?)
(LH PP|PV-tá-	-~a)	indirect relative

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CLASS-LESS FORMS

Index forms 8.1.

Particles 8.2.

Ideophones 8.3.

8.1. *Index forms.*

There are a few non-concordial elements which can precede a nominal or a pronominal, and, although they occur in no other position, are not clearly prefixes, since they can have the same relation to more than one word without being repeated with each.

Two of these indexes are non-predicative : associative na(-) « with, also, and », and comparative nga(-) « like » : na-muána « with a child », nga-muána « like a child ». In many languages these two indexes are combined, not with the substitutives, but with the possessive stems; it is not clear whether this is a reflex of the situation in Proto-Bantu or a refection due to resemblance of the vowel in na- and nga- with the link vowel of the connective and the possessive.

Two predicative indexes are attested in the eastern languages : affirmative ní(-) « it is » and negative tí(-) « it is not » : ní-muána « it is a child », ní-baána pl., tí-muána « it is not a child ». A predicative index is used only in « indic. pres. 3rd person » (as opposed to e.g. subjunctive, or past, or 1st or 2nd person), and with identifying meaning (as opposed to e.g. localisation).

8.2. *Particles.*

Not many unrelated forms can be reconstructed. Two clear cases are deedó « today » and dúbí « yesterday, tomorrow »; some languages attest túpú « only, in vain », which according to the data in other languages is an adjective stem. It is not clear whether the words for « six » to « nine » are invariables or prefixless nouns. Some forms with recognizable stem and prefix are so isolated that they are practically unvariables : kadaí « long ago », kudaí « far away », paípí « near », pámoí « together ».

8.3. *Ideophones.*

Although not a single ideophone can be set up in its phonologic form, the form class as such with some of its characteristics can be reconstructed for Proto-Bantu : ideophones belong to a special sub-system of the language; they are used in particular contexts (as a sentence, after some verbs, after quoting particle); they correspond to all sorts of form classes except nouns; they show little or no morphemic structure except reduplication, and not much derivational relationship with other forms (except with verbs) or with each other; they often have special phonologic features (e.g. additional pho-

nemes, extra vowel length, etc.); semantically also there are peculiar features
(« direct experience, vividness, emotionality », etc.). Ideophones seem to be
replaced at a greater speed than other forms, since no correspondences can
be found even between closely related languages.

SYNTAX

Concord 9.1.

Nominal groups 9.2.

Verbal groups 9.3.

Clause 9.4.

Relative clause 9.5.

Non-relative subordinate clauses 9.6.

Sentence 9.7.

  Ordinary sentence 9.7.1. .

  « Advance verb construction » 9.7.2.

  Clause sequence with subsecutive 9.7.3.

  Clause sequence with imperative 9.7.4.

  Minor sentence 9.7.5.

The results in comparative syntax are generally less full than in mor-
phology or in lexis, since constructions tend to have more freedom in their
structure and more possibilities of replacement than words. For Bantu,
there is an additional factor : for many languages we have a morphological
outline and a vocabulary, but no syntactic description. The results which
we can obtain are not spectacular, and may even be thought to be trivial,
but they are none the less real. They consist mostly in word-groups which
are attested practically everywhere in Bantu.

In this section, the following abbreviations will be used : S noun,
L locative (or lS), A adjective, N numeral, C connective (or cS), D demon-
strative, P possessive, iS/iL index form, V verb, I infinitive, R relative
clause, F any form.

9.1. *Concord.*

The general features of the concord system are fairly straightforward :
a noun or a locative, which belongs to one of a limited number of classes,
determines a particular class membership of all words which have unlimited
range of class membership (« omniclass ») and which have a direct syntactie
relationship to the noun (either attributive or predicative — see 9.2 and 9.4).
Also all-class words used without relationship to a noun in one of the special
classes 1, 2 [« person(s) »], 7, 8 [« thing(s) »], 12, 13 [« small one(s) »],
14 (« state, quality »), 16, 17, 18 (« place ») determine class membership in
other words.

Another type of relationship involving concord is seen when a noun or locative, instead of being repeated, is being replaced by an all-class word (e.g. an adjective) or element (e.g. an infix), either in the same sentence or across the sentence limit.

9.2. Nominal groups.

Apart from the cases where a S or a L (or a « substantivized » A or N or C) is used alone, the following groups are well attested :

SA	muedé mudaị,	a long knife
	miedé midaị	pl.
SN	miedé ítátu,	three knives
SC	muedé gúá-muána,	the child's knife (also SP)
	miedé gíá-muána	pl.

Combinations of these show a relatively fixed word order, with C/P tagged on to the noun, but N coming last, even at the end of the sentence :

SCA	muedé gúá-baána mudaị
SAN	miedé midaị ítátu
SCN	miedé gíá-baána ítátu
SCAN	miedé gíá-baána midaị ítátu

The general formula, then, is : S(C)(A)(...)(N).

Also groups with non-predicative index forms can be set up :

SiS	(na-)	ngụbú na-ngoịna,	a hippo and a crocodile
	(nga-)	mugodị nga-njóka	a rope like a serpent

Instead of being a word, S contained in L (= lS), C (= cS) and iS can be a nominal group :

muedé gúá-baána babíi,	bad children's knife (cSA)
mugodị nga-njóka nkádi,	a rope like a fierce snake (iSA)

How often this recurrence can be repeated is not clear, not even for the present-day languages.

Within the construction LC there must have been a difference — manifested by agreement — between lS.cS and l.ScC : ku-mugị kúá-mukota, at the chief's village, but : ku-mugị gúá-mukota, to the village belonging to the chief.

Nothing definite can be said as yet about groups containing a D; perhaps DS was possible as well as SD; DS seems to be required by the augment as appearing in many parts of the domain (see 5.5), and it represents a striking example of deviation from the current type in which the head precedes the attribute.

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A construction SS is less clear : mukota guaįtú ngoį, our chief the leopard (SP.S); bantu įkúmį, ten people (« people a-ten-group »).

An extremely frequent construction is SR, in which R can be a word, but also a clause : įpía dídimá bantu, the garden which the people cultivate; mu-įpía dídimá bantu, in the garden which the people cultivate; mu-įpía múdimá bantu/pa-įpía pádimá bantu, in/on the garden where the people cultivate.

9.3. Verbal groups.

The general features of the construction are clear : a verb followed by one or more forms (« objects »), with only one case of special agreement (see 9.4); well attested groups are (apart from V alone) :

VS, VL	kubóná baána,	to see the children
	kukínídá mu-njida,	to play on the path
VSS	kupáá muána muedé,	to give the child a knife
VSL	kutáá muedé ku-duįji,	to throw a knife into the river
V(S)iS	kuátúdá (kintu) na-muedé,	to split something with a knife
VI (I/IF)	kumadá kukíná na-baána,	to stop playing with the children
(other VV ?)		
VE (E : clause)	kubóná bantu bá(da)dima,	to see the people cultivating

In each of these, S is a noun expression, i.e. a noun occurring alone (S) or a noun group (SF); I may likewise be a word (I, V) or a group (IF, VF).

Details are much more difficult to ascertain.

1. Sub-classes of verbs according to the particular groups (V, VS, VL...) in which they appear cannot yet be presented. An interesting exception is a verb for which ViS (i : na-) is favoured; it is easier to identify this verb by its meaning than by its form : « approach, get near » (also the adjective -įpi « short, near » seems to have this construction). Another case is -pá-, which is possible as kupáá muntu kintu, « give someone something », or as kupáá muntu, « give (to) someone », but not as †(kupáá kintu), so that the translation of the verb should rather be « gratify (someone) » than « give ». See also (5), below.

2. An important set of features is seen in the special relationships between verbs with suffixes, in particular -id- (applic.), -į- (caus.), -an- (recipr.) and -ú- (pass.), and the groups in which they appear. The first two normally have an additional object S spoken before the other objects, if any, whereas the last appears with iS (i : na-) instead of its normal subject; verbs with -an-, as also -ik- and -uk-, tend to appear with a minus of object, as compared to the other derivatives.

3. The presence of an S-group within a V-group can be one of different types; one of these relationships is difficult to define formally, but is reflec-

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ted in translation by renderings like « out of... », « from... », or « as to... ».
Examples are kukц́á njada, « to die of hunger », kudémádá kugudu, « to be lame as to the leg », kudúádá maĵco, « have sore eyes ». An S-group of this type can be present, as an additional feature (however this can be defined), in almost any kind of V-group. The same applies to V(...)iS...

4. A fixed relationship exists between a V-group in which the V has an infix, and a V-group having a plus of S/L-object (but a minus of infix) :

VSL	kutáá kintu pa-ncí,	« to throw something on the ground »
iVL	kukítáá pa-ncí,	« to throw it on the ground »
iVS	kupátáá kintu,	« to throw something there »
iiV	kupákítáa,	« to throw it there »

5. In one case a sub-class of verbs can be established. In the construction VF (in which F is a clause), only four verbs are normally possible; this is one of the occasions on which Bantu, along with other African languages, seems to be markedly different from the languages in the rest of the world. The four verbs are -bón- « see », -úngų- (/-ĵgu- ...) « hear », -cang- « find », -tĵg- « leave ». The semantic link between the four would be « become aware » (or rather : French « constater », German « befinden »); the differential is then : « by seeing, by hearing, at arrival, at departure ». The latter two are akin to, but not identical with, « towards the (mentioned) person or place » and « away from ... », and will probably be found elsewhere in Bantu syntax as semantic and even morphosemantic categories (e.g. « do after arriving there », and « do before leaving there », in VV or VI).

6. It will be relatively easy to reconstruct a construction VV in which the second V is an infinitive, and also to identify some of the verbs which must have been used as first V (-ĵj- « come », -gi- « go », -ged-(ĵ)- « try », -jíg- « learn », etc.).

9.4. Clause.

The general formula for a clause is (S').P', in which S' is a nominal expression (word or group) as subject, and P' a predicate; the latter can be nominal, viz. iS [i : predicative index aff. ni- (T ?), neg. tĵ-], or verbal viz. vp-V (V : any verb group, in which the verb has verbal prefix). Examples :

nom. :	miedé ni-midaĵ,	the knives are long;
	ni-midaĵ,	they are long;
	(miedé) tĵ-midaĵ,	the knives/they are not long;
verb. :	miedé gíatĵgadĵde pa-ncí,	the knives remained on the ground;
	gíatĵgadĵde pa-ncí,	they remained on the ground.

If there is a subject, the predicate agrees with it in class (but if there is no subject, then there is replacement).

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There is one type of clause in which class agreement is extended, as far as possible, to a nominal or pronominal included in the verbal predicate; this is found with verbs like -di « be », -bá- « become », -tįgad- « remain (as) », etc., and yields a nomino-verbal sub-type of verbal clause :

ndi mudaį,	I am tall
tudi badaį,	pl.
bįkídi bįbíci,	they are still fresh
jíbaé nkáli,	let it become fierce
migį gíatįgádįdé mitúpú,	the villages remained empty

In a verbal clause, the relationship between subject and some nominal part of the predicate (object) is looser than what one would expect. Possible clauses would be e.g. the following two, the second of which is rather surprizing (considering that both have the same translation) :

nkíma jíįji buénge búá-mití,	the monkey knows the (cleverness of) trees;
buénge búá-mití búįji nkíma,	id.

A similar freedom of expression, viz. interchangeability of subject and object, is often attested in sentences suggested by translations like the following : « the worms enter the corpse », « the blood comes out of the wound ». The term *anastasis* is proposed for this type of construction, although it is realised that purely formal identification of the phenomenon is extremely difficult.

In the same way one has dual possibilities involving a locative :

njogụ jíákụįde mu-duįji,	the elephant died in the river;
mu-duįji múákụįde njogụ,	id.

There may have been a difference in meaning, such that the translation of the second case would rather be : « in the river (there) died an elephant ».

9.5. *Relative clause.*

In most cases, the relationship between a relative clause and a corresponding absolutive clause is fairly simple. One of the nominal parts of the absolutive clause is absent in the relative clause, but it is either the headword (antecedent) to which the relative clause is attributive, or else its place is taken by the entire relative clause (« those you were helping »); in either case it is taken up by the pronominal prefix of the relative verb (7.5). With object-antecedent, a bound subject appears as verbal prefix after the pronominal prefix (: indirect relative, with pp|pv-STEM), whereas in other cases (viz. subject-antecedent, or free subject) there is only a pronominal prefix (: direct relative, with pp-STEM) — a free subject, if any, following the relative verb. It is not clear whether the bound subject could be one of the four person prefixes only, as in some of the languages, or any verbal prefix, including classes, as in some other languages.

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There is more complication, and less possibility of reconstruction, if the antecedent is a nominal which in the corresponding absolutive clause is included in L, C or iS : « (the branch) he was sitting on; (the stranger) whose voice we heard; (the spear) with which he stabbed the snared animal ».

A relative clause with verb -di is often used, in one of the locative classes, with a class 1a noun as subject (such a noun cannot occur in a locative, 4.8) : ágié kúdí ịcé, let him go to his father (« ... where-is his-father »).

9.6. Non-relative subordinate clauses.

Such constructions may have existed in Proto-Bantu, especially with introductory particle, but if so, they escape reconstruction, since no such particle seems to have been preserved anywhere. As for clauses without a subordinating particle, apart from the cases mentioned in 9.3.5, much will depend on the possibility of reconstructing conjunctive verb forms (7.4.).

9.7. Sentence.

9.7.1. Ordinary sentence.

A sentence consisting of a clause (and having its special intonation) is attested everywhere as a normal construction; also there may be a succession of clauses instead of just one. More precise reconstruction is of course very difficult here.

9.7.2. « Advance verb construction ».

A peculiar kind of sentence, with twice the same verb, the first occurrence being an infinitive, is attested frequently, and will have to be ascribed to Proto-Bantu. The meaning varies between stress of « reality », stress of « degree », and even « concession » : kutákụna báátákụnide, « they chewed as (much as) they could »; « (as for chewing) they did chew, (but ...) ».

9.7.3. Clause sequence with subsecutive.

The eastern languages attest a sentence construction beginning with an ordinary clause followed by one or more clauses with subsecutive (7.4). Such a construction is often used in narrative, but is not restricted to it.

9.7.4. Clause sequence with imperative.

A very widespread construction consists of an imperative clause and one or more subjunctive clauses, used to the exclusion of a series of imperative clauses, although the translation equivalent is a sequence of orders : giá ku-duịji, útapé maịji, úgaduké dubidóo, « go to the river, draw water, and come back quickly ».

9.7.5. Minor sentence.

One characteristic type can be reconstructed, viz. SP, in which P has a stem in 2nd p. sg.; some translations will give an idea of what is meant : « your lie; your foolishness; your cowardice », mostly as reproval.