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Medial Consonants in Proto-Ịjọ

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INTRODUCTION

This paper relates the stem-medial consonants of Proto-Ịjọ (PI) to those of certain reconstructed proto-languages which preserve second consonants (C_2): Proto-Ẹdoid[1] (Elugbe 1973, 1978, and personal communication), Proto-Jukunoid (Shimizu 1971), Proto-Plateau (Gerhardt 1967-70, 1974), Proto-Upper Cross (Dimmendaal 1978), and Common Bantu (Guthrie 1967-71) or Proto-Bantu (Meeussen 1969).

All these proto-languages belong to the part of Niger-Congo which Greenberg (1963) divided into the Kwa and Benue-Congo branches. He himself expressed doubts as to the validity of separating these two branches, and in recent years a number of scholars have become increasingly sceptical about the distinction, e.g., De Wolf (1971), Stewart (1973), Elugbe and Williamson (1977) [henceforth E&W].

Bennett and Sterk (1977) [henceforth B&S] have proposed a radical reclassification of Niger-Kordofanian in which they merge the former Kwa and Benue-Congo branches into a single branch they call South Central Niger-Congo [henceforth SCNC], which they subdivide into

(a) Western SCNC (equivalent to Greenberg's Western Kwa, minus Kru)
(b) Ịjọ
(c) Eastern SCNC, comprising the rest of Kwa and all of Benue-Congo.

This corresponds well with the impression that Ịjọ does not belong particu-

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larly with either 'Kwa' or 'Benue-Congo' languages (Williamson 1965:4, 1972).

One result of accepting, provisionally, the Bennett-Sterk classification at this point is that any PI form for which a congnate can be established in any language previously classified as Kwa or Benue-Congo is thereby established at the Proto-SCNC (PSCNC) level. In this paper, therefore, a series of tentative PSCNC reconstructions will be proposed, based on evidence from PI and one or more other SCNC languages.

B&S's classification is based on a combination of lexicostatistical counting (not of the Swadesh type) and a study of distinctive innovations. Comments will be made on a few of the innovations which affect subgrouping within Eastern SCNC.

Another important study by Mukarovsky (1977) has been utilized in this paper. He proposes reconstructions for Western Nigritic, a language family that is equivalent to Greenberg's Niger-Congo minus Mande, Adamawa-Eastern, and Fula-Serer-Wolof. The great value of the book is its careful compilation of likely cognates from a great variety of languages. Thus if for a particular root he cites convincing cognates from West Atlantic and another branch of his Western Nigritic, it is obvious that the root can be reconstructed to Bennett and Sterk's 'Niger-Congo' level (i.e., Greenberg's Niger-Congo minus Mande).

The useful study by Dimmendaal (1978), in which the consonants of Proto-Upper Cross (corresponding to Greenberg's Cross River 3 plus part of his Cross River 2) are reconstructed, is also utilized, particularly because this proto-language shows the fortis-lenis distinction which Stewart (1973) has reconstructed for Proto-Volta-Comoe and Elugbe (1973) for Proto-Ẹdoid.

1. Proto-Ịjọ[2]

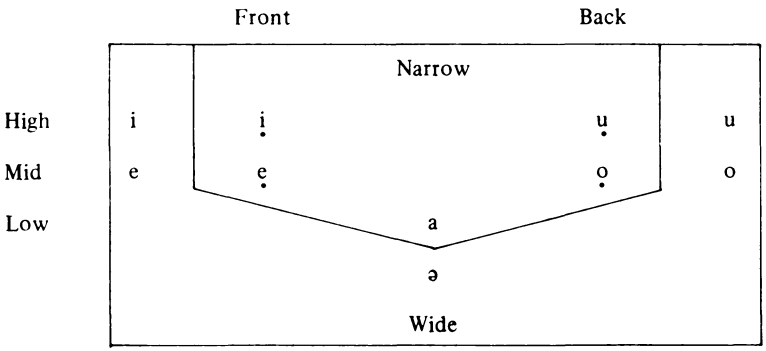
Proto-Ịjọ is reconstructed with the twenty consonants shown in Table 1 and the ten vowels shown in Table 2.

Table 1: Consonants of Proto-Ịjọ

Obstruents				
voiceless				
non-stop	f	s		
stop	p	t	k	kp
voiced				
non-imposive	b	d	g	gb
implosive	ɓ	ɗ		
Sonorants				
no stop potential	w	r	y	
stop potential				
non-nasal		l	gh	
nasal	m	n	ŋ	

Note: PI transcriptions are systematic-phonetic. Automatic nasalization resulting from an adjacent nasal is not marked.

Table 2: Vowels of Proto-Ijọ



Note: PI had vowel harmony of the type described by Stewart (1967) and Lindau (1975). The 'wide' vowels are those produced with an expanded pharynx, the expansion being produced largely by moving the tongue root forward; the 'narrow' vowels are produced largely by retracting the tongue root and thus contracting the pharynx.

All the consonants except *gh* and *ŋ* occur as C_1 (the first consonant in a stem, whether or not a vowel precedes); *r* does not occur in absolute initial position, but has a normal distribution after an initial vowel. *w* tends to precede back vowels and *y* front vowels, but they clearly contrast before *a*.

Most modern varieties of Ijọ contain sequences of nasal + voiced stop. It has been argued previously (Williamson 1973a, E&W 1977) that these are derived by metathesis from earlier sequences of stop + nasal, which in turn originate from the loss of an original vowel between the stop and nasal (Hyman 1972). Thus:

$$\text{V-CV}_1\text{NV}_2 > \text{V-CNV}_2 > \text{V-NCV}$$

Where C is not a stop, or when no vowel precedes, metathesis does not take place and -CNV > -C$\tilde{\text{V}}$.

Because there is no contrast between voiced and voiceless stops in such a position, it is assumed that the nasal caused the adjacent stop to assimilate to it in voicing. Hence such stops are reconstructed as *B*, *D*, *G*, *GB*, which represent archiphonemes whose original voicing contrast has been neutralized.

The original nasal in such combinations is assumed to be **ŋ*, since sequences C-*m*-, C-*n*- are common in PI, but -*ŋ*- is found only as the second consonant of three (see items 38, 39). It could conceivably, however, have been some other weak nasal, such as **ny*, in some instances. Consequently, a modern Ijọ word of the form V_1NCV_2 or CV_1NCV_2 is reconstructed as PI $\text{V}_1\text{CV}_2\text{ŋV}_2$ or $\text{CV}_1\text{CV}_2\text{ŋV}_2$ respectively.

Sequences of dissimilar nasalized vowels occur in modern Ịjọ. These are assumed to originate from the loss of an intervocalic -ŋ-. Thus, modern $C\tilde{V}_1\tilde{V}_2$ is reconstructed as $CV_1ŋV_2$.

Because *gh* in modern Ịjọ often functions as the oral counterpart of *ŋ*, a sequence of dissimilar oral vowels has by analogy been reconstructed with original *GH* (i.e., *gh* or some other weak consonant) between such vowels. The few instances of *w* or *y* in stem-medial (C_2) position have also been reconstructed to this *GH*.

In C_2 position it is not easy to reconstruct a voiced/voiceless distinction between stops. No case of medial *-p-* has been reconstructed, though there is one instance (item 4) where a labial stop preceding *-ŋ-* has been reconstructed as *-B-* (i.e., a labial stop whose voicing cannot be determined).

A few instances of medial *-t-* have been reconstructed, but they voice to *-d-* in some varieties and the contrast *t/d* is not strongly established. Except for the few items where *-t-* is fairly consistent, a neutralized *-D-* has been reconstructed.

The *k/g* contrast is even weaker in medial position; in general Eastern Ịjọ shows medial *-k-* corresponding to Nembe *-g-* and to Ịzọn *-gh-* or *-Ø-*. Although in individual varieties a *k/g* contrast can be established, and although such a contrast may have existed in PI, it cannot be consistently reconstructed. Consequently, only a neutralized *-G-* has been reconstructed for all such items.

Table 3 summarizes the frequency of distribution of consonants in C_2 position in a representative selection of PI items.

Table 3: PI Consonants in C_2 position

Consonant	No. of occurrences
Ø (i.e., no 2nd consonant)	73
f	0
s	7
p, b = B	3
t	5
t, d = D	15
k, g = G	68
kp, gb = GB	4
ɓ	20
ɗ	0
l	29
w, y, gh = GH	46
r	64
m	17
n	21
ŋ	69

From Table 3 it will be observed that (a) it is more common than not for a PI item to have more than one C; (b) certain consonants are overwhelming-

ly more common than others in C_2 position. It is chiefly from among these common consonants that cognates with other proto-languages can be discovered.

2. From Proto-Ịjọ to PSCNC

The medial consonants of PI will now be compared with those of Proto-Ẹdoid (PE), Proto-Jukunoid (PJ), Proto-Upper Cross (PUC), Proto-Plateau (PP), and Bantu (B).

It may be thought curious to begin a reconstruction with C_2 instead of C_1. It is true that C_2 is subject to assimilatory weakening (cf Williamson, in press). But it is possible that such weakening will be found to have affected different languages to different extents, such that original contrasts will not be equally obscured in all of them. C_1, on the other hand, is very likely to be affected, in nouns, by lost or reduced prefixes (cf Meeussen 1963).

As a result of the comparison of cognates, some tentative partial reconstructions are proposed for PSCNC. They are partial because
(a) they are limited to consonants;
(b) in many cases they do not show the fortis/lenis distinction which operated in PSCNC (see Stewart 1973; E&W 1977; and cf. Dimmendaal 1978). In the few cases where the Ẹdoid or Proto-Upper Cross evidence allows us to make a decision, a fortis consonant is represented by a lower-case letter and a lenis one by a lower-case letter plus *h*. In all other cases, an upper-case letter is used.

Comparisons with PE are based on Elugbe (1973), updated by personal communication; the Proto-Ẹdoid vowels have been retranscribed as in Ịjọ for typographical reasons. PJ forms are from Shimizu (1971), as are also Proto-Central Jukunoid (PCJ) and Proto-Jukun-Mbembe-Wurbo (PJMW). PUC forms are from Dimmendaal (1978). Forms labelled PP are from Gerhardt (1967-70), which proposes reconstructions for 'Plateau', i.e., subgroups 2-4 of Greenberg's Plateau. These subgroups have been left together as 'Plateau' by more recent classifications which have broken up Greenberg's Plateau (Shimizu 1975; B&S 1977). In his more recent work, Gerhardt (1974) reconstructs four separate proto-languages, breaking up Greenberg's Plateau 2 into two subgroups and grouping them as follows:

1a.	Proto-Plateau 4	(here PP4)
b.	Proto-Plateau 2: Kagoro subgroup	(here PP2K)
2a.	Proto-Plateau 2: Jaba subgroup	(here PP2J)
b.	Proto-Plateau 3	(here PP3)

Bantu (B) forms are generally Common Bantu forms from Guthrie (1967-71), but Proto-Bantu forms from Meeussen (1969) are cited where they provide a better basis for comparison. Both Guthrie's and Meeussen's

forms refer only to Narrow Bantu, not to the Wide Bantu of Greenberg.

References have also been made where appropriate to Mukarovsky's (1977) reconstruction of Proto-Western Nigritic (PWN). Since Mukarovsky sees his work as a continuation of Westermann's, but had new material available to him, his reconstructions have been cited instead of Westermann's West Sudanic forms. Proto-Benue-Congo (PBC) forms are from De Wolf (1971). Proto-Lower Niger forms are from Williamson (1973b, or an updating of it). Groupings of cognates (often without reconstructions) have also been cited from the Benue-Congo Comparative Wordlist (BCCW), edited by Williamson and Shimizu (1968) and Williamson (1973c), from Greenberg (1963), and from Armstrong (1964).

3. Comparison of cognates

A. PI **-ɓ-* and **-B-*

Three instances of PI **-ɓ-* and one of **-B-* have Bantu cognates. In items 2 and 3 PI *-ɓ-* = Bantu *-∅-* between close vowels, whereas in item 1 Bantu *-b-* is preserved before (and perhaps originally also after) an open V.

1. PSCNC **-D-B-* 'pool'
   PI *dáɓá*
   B *-dìbà* 5/6 (CS 557)
   -di̇̀bà 5/6, 7/8 'pool; (well); (deep water)' (CS 603)

Cf Efik *è-dɛ̀p* 'marsh'.

2. ?PSCNC **-t-B-* 'head'

PI	*tíɓí̤*	B	*-túè* 3/4 (5/6) (CS 1808)
?PE	*u-chemhi ə-*		*-túì̤* 3/4 (CS 1811)
PUC	*-ttó dè-dà-*		*-tú* 3/4 (CS 1800)

Mukarovsky reconstructs PWN *-TÚI* 'head' (532). The forms he cites do not indicate a *-B-*, but the two vowels, and variation in vowel reflexes, may indicate an original consonant between them. PE shows a labial second consonant, although a nasal.

3. PSCNC **-D-B(-K)* 'bury'

PI	*dì̤ɓì*	B	*-dì̤k-* (CS 615)
PJ	*ndìP*		

Cf. item 2 for proposed loss of *-B-* between close vowels in Bantu. Under PI *-ŋ-* it is claimed that Bantu preserves two vowels after an intervocalic *-ŋ-* has been lost; the same may be true for other original medial consonants.

4. PSCNC **-P-B-ŋ-* 'wing'

PI	*pàBàŋà*	?B	*-bàbá* 5/6, 11/10 (CS 6)
PUC	*-bábàŋ dè-/dì-*		*-pàpá* 5/6, 11/10 (CS 1450)

Cf Efik *ṁ-bâ* 'wing'. Bantu oddly does not show a long vowel, the normal result of the loss of Pre-Bantu intervocalic *-ŋ-* (see section H, below). But this is evidenced in PUC and De Wolf's PBC *-babaŋ*, *-pabaŋ li/a*, which

correspond closely to PI. Mukarovsky reconstructs PWN *-BÁMBÀM* (14), *PAPA* (419), citing such forms as Likpe *kó-bámbà /m-*.

B. PI *-*D*-

Three instances of PI *-D-* preceding *-ŋ-* correspond to Bantu items which in at least one of their osculant forms contain a sequence *-nd-* or *-nj-*. If the Ijọ reconstructions are correct, and the Bantu forms are true cognates, this implies that at some pre-Bantu stage a nasal metathesis similar to the Ijọ one took place.[3] If such a metathesis can be established, it might be an important common innovation delimiting Bantu or some subgroup containing Bantu.

5. PSCNC **G-D-ŋ-* 'walk, go'

PI	*wẹ́Díŋí* 'walk'	B	*-yènd-* 'go' (CS 1975)
B	*-gènd-* 'go (away)' (CS 806)		*-yènd-* 'walk, travel' (CS 1976)
	-gènd- 'walk, travel' (CS 807)		

Cf also Proto-Lower Niger **jne* 'go'. The general Ijọ development of **-d-ŋ-* is *-nd-*, but Okrika shows *-ŋg-* both in this item and item 7 'water', suggesting that the velar nasal in that variety caused assimilation in place before the metathesis took place.

6. PSCNC **-T-D-ŋ-* 'platform'

PI	*àtàDàŋà*
B	*-tádà* 5/6, 7/8, 11/10 'platform; (granary)' (CS 1640)
	-tándà 7/8, (14/6) 'bedstead' (CS 1666)

Guthrie does not connect his two starred forms. If we assume an earlier form similar to the Proto-Ijọ one, CS 1640 could arise from loss of the final syllable and CS 1666 from nasal metathesis. Differentiation in meaning would then naturally follow the differentiation in form.

7. PSCNC **-B-D-ŋ-* 'water'

PI	*ɓèDìŋì*	B	*-yígì* 11/10 'river' (CS 2041)
PE	*a-miN/-minhi*		*-yígì* 6 (CS 2040)
PJ	*m-byed*		*-yíjì* 11/10 'river' (CS 2000)
B	*-yínjì* 6 (CS 2079)		*-yíjì* 6 (CS 1999)
	-yújì 11/10 'river' (CS 2155)		*-njí* 6 (CS 937a)
			-jí 6 (CS 937)
	-yíjì 11/10 'waterhole' (CS 2048)		*-jì* 6 (CS 943)
	-yíjì, *-yíjì* 6 (ps 528)		

Cf also Proto-Lower Niger *m-miɗ̀ní*, Akweya *ìmànyì~ìmèn* (R. G. Armstrong, personal communication) and Plateau forms such as Kagoma *ki-malaŋ*, Piti *miniŋ* (BCCW; see discussion, esp. p. 388). Mukarovsky reconstructs PWN *-LINGI* (342).

All the forms cited here except Bantu suggest that the first consonant was labial. Either the consistent lack of a labial in Bantu can be explained as a result of a sound-change **by* > *y* (cf Jukunoid),[4] or its presence elsewhere can be explained by the influence of an *m*-prefix.

The great variation in the Bantu forms suggests some rather unusual structure. CS 2079 is here assumed to be the most original form because it is the most complex. If this is correct, *-nj-* (palatalized before *i* from *-nd-*) corresponds well to Ijọ *-D-ŋ-*.

C. PI **-r-*

PI *-r-* corresponds sometimes to B *-t-* and sometimes to B *-d-*. As explained previously, clear contrasts between voiced and voiceless stops cannot be established in medial position in PI. It is therefore assumed that Bantu here preserves a voicing contrast which was lost in Proto-Ijọ. PSCNC is reconstructed with both *-T-* and *-D-* in consequence.

For a possible correspondence of PI *-r-* to B *-d-* as third consonant, see item 23.

Four instances of PI *-r-* corresponding to PE *-∅-* have been identified and are discussed below.

8. PSCNC **-bh-D-* 'goat'

PI	*ɔ́ɓɔ́rí*	PP3	*bwal/byal*
PE	*ẹ-bhụị ị-*	PUC	*-bón è-/i-*
PJ	*bín*	B	*-búdị̀* 9/10 (CS 185)

Cf Efik *é-bót* and Mukarovsky's PWN *-BUDI* (*-BUADI*) 'goat' (45), supported by forms such as Naudem *bur-gu*, Baule *bori*, *bòlí*, Grebo *wúd-i*. While enough nasal forms are recorded to cause De Wolf to reconstruct PBC *-bwoni ì/í*, the oral second consonant is more widely spread. Bantu shows a voiced stop. This item is one of the clear cases of PE *-∅-* = PI *-r-*.

9. PSCNC **-B-D-* 'become rotten'

PI	*ɓùrù*	B	*-bòd-* (CS 153)

Mukarovsky reconstructs PWN *BÒD-* (35), supported by forms such as Gurma *bedi*, *veri* and Lyele *bwar*. There are many other examples in BCCW 298-301, e.g., Abua *ɓọr*, Mambila *fọl*, Pyem *bol*, etc.

10. PSCNC **-K-D-* 'become strong'

PI	*kùrò* 'become hard, strong'	B	*-kód-* 'become strong' (CS 1104)

Cf Efik *kɔ̀rì* 'grow', Degema *-kàrá*, and some less certain cognates in BCCW 190-193 'grow; become strong'.

11. PSCNC **-d-D-*, **-d-T-* 'sell'

PI	*dèrì*	PE	*dẹị*

This is a second strong case for PI *-r-* = PE *-∅-*. Since there is no Bantu cognate, the voicing of the second C cannot be determined.

12. PSCNC **-K-D-*, **-K-T-* 'year'

PI	*kúraGHị*	PE	*u-kwe*

Once the correspondence PI *-r-* = PE *-∅-* is established, these forms emerge as reasonable cognates. As explained above, *GH-* is postulated between any two oral vowels in PI; *ai* can easily contract to *e* (cf item 43 for vowel coalescence); after loss of *-r-*, *-ue* can easily reduce to *-we*. Again, the voicing of the C_2 cannot be determined.

13. PSCNC **-t-T-* 'three'

PI	*tárú*	PUC	*-ttán, -ttáD*
PE	*ii-chai*	B	*-tátù* (CS 1689)
PJ	*-tat- i-*		*-cátù* (CS 299)
PP2J	*-tat*		

Mukarovsky reconstructs PWN *-THÁTHU* 'three' (542).

The PE reconstruction is another clear case of the loss of an intervocalic alveolar consonant. Observe that Edoid constitutes a counterexample to B&S's observation that "All SCNC forms with final vowel show **tato*, while West Atlantic and Adamawa-Eastern forms generally show **tatí*" (1977:253, fn. 14).

Bantu here shows *-t-* in contrast to the *-d-* of the previous items. Meeussen (1963) observes that the forms in Bantu (and elsewhere) which show initial *c-* rather than *t-* have probably been palatalized by the *i-* prefix of class 10.

14. PSCNC **-Y-T-* 'canoe, boat'

PI	*árú* 'canoe'
B	*-yátò* (3/4), 5/6, (14/4), 14/6 'canoe' (CS 1949)

Normally an *-r-* in this position in PI is regarded as a C_1. But given the very weak consonant of Bantu, it is conceivable that some weak consonant, such as *y*, has been lost from the beginning of the PI word.[5]

Mukarovsky reconstructs PWN *-YAT-*, citing Temne *a-yal/te-*, Nupe *è.ya* 'boat'. This would make it a Niger-Congo and not merely an SCNC item.

D. PI **-G-*

As noted earlier, a clear *k/g* contrast in medial position cannot be established in PI. Velar stops are therefore all reconstructed as *-G-*. But, as with the alveolar stops, Bantu shows a clear contrast; cf items 15-18 with items 23-24.

15. PSCNC **-dh-G-* 'rope'

PI	*díGí*	PP4	*dik u-/ka-, ù-*
PE	*u-dhiNa a-*	PUC	*-díkì dò-/i-* 'rope, thread'
PJ	*diT, diK u/i-*	B	*-dígì* 3/4, 11/10 'string' (CS 613)
PP3	*dik*		*-dí* 11 'string' (CS 592)

The second syllable of the PE form is clearly an innovation. Cf Efik *ú-rúk*, PBC *ú-digi i-* 'cord, rope, liana'.

16. PSCNC **-P-G-* 'hear, listen'

PI	*pó ̀Gí*	?B	*-yúgú-* (CS 2154)
PJ	*pwog*		*-yíg̣u-* (CS 2043)
PP	*fwak*		*-yíŋg̣u-* (CS 2084½)
PP2K	*pok* (+ VE *-s/-ŋ*)		*-yúŋgu-* (CS 2183)
?B	*-yúg-* (CS 2152)		

B&S recognize three roots for 'hear', which play an important part in their classification:

1. Proto-Central Niger-Congo **nu*; this occurs in PI as *nà* 'hear'.

2. A root **pɔk* which is an innovation in SCNC. Note that in PI the stems *nà* and *pó ̀Gí* co-occur as 'hear' and 'listen' respectively. It is conceivable that the second stem originated with this meaning and shifted to 'hear' in some languages. This might explain the continued survival of **nu*, noted by B&S, in SCNC.

A shift of **p* to **w* in this item and in 'moon' constitutes one of the isoglosses separating B&S's 'Wel' languages (equivalent to Bendi plus Bantoid) from the Plateau languages.

3. A root **ungwa* which distinguishes the 'Ungwa' languages, i.e., Tiv plus 'Zambesi' (Bantu zones E-S and D in part), from the 'Wok' languages (those which retain the **pɔk* root in its **wɔk* form), i.e., the rest of Wide Bantu. In footnote 25 they observe that **ungwa* is possibly cognate with Kambari *uwwa*; if it is, this appears to destroy the value of **ungwa* as a criterial innovation for an 'Ungwa' group, since Kambari is not included in that group.

In the same footnote 25 they observe that **ungwa* appears as **-ígu-* in parts of Bantu. This remark seems to refer to the forms from which Guthrie's CS 2043, cited above, is reconstructed. Guthrie, however, appears to be correct in regarding all his starred forms cited above as related (cf the variation under item 7 'water' above). In this case, it is hard to see how the distinction between 'Wok' and 'Ungwa' languages can be maintained, since reflexes of this set of starred forms occur in both Bantu zones A-D and D-S.

In short, while B&S appear to be correct in distinguishing an old root *-N-* from a more recent root *-P-K-*, it seems much less clear that the latter is distinct from **ungwa*. Two alternative possibilities suggest themselves:

1. *-P-K-* occurred in some areas with an extension *-ŋ-*, which yielded the Tiv form and the *-ng-* forms of Bantu. This assumes a shift of **p* > **y* in Bantu; cf item 7 for a possible shift of **by* > **y* in Bantu.

2. *-P-K-* was partly supplanted by a newer form *-GH-G(-ŋ)*, accounting for Tiv, Bantu (and conceivably Yoruba *gbọ́*, cf B&S, footnote 20).

Decisions between these various possibilities must await further study of sound correspondences.

17. PSCNC **-d-G-* 'paddle (v.t.)'
PI *-dọ̀gù* 'paddle (v.t.)' B *-dúg-* 'paddle' (CS 735)

Since PI *d-* = PE *d-* in item 11 and is therefore reconstructed as PSCNC *d-*, it is assumed here that PI *d-* also indicates PSCNC fortis *d-*.

The observation that item 14 'canoe' goes back to PNC and 'paddle' to at least PSCNC has interesting implications for culture history.

18. ?PSCNC **-P-G-*, **-B-G-* 'bundle'
PI *-póGú*, *-póGí* ?B *-búgí* 5/6 (ps 46)

This is possibly a look-alike but not a cognate, since the C_1 correspondence is not wholly convincing. It is included to stimulate further investigation.

19. PSCNC **-D-G-* 'want'
PI *dọ̀Gì* 'look for, want' PJMW *dog* 'want'

Although isolated this seems plausible.

20. ?PSCNC **-D-G-* 'look at, see'
PI *dĩ̀Gì* 'look at' PCJ *di* 'see'

The PCJ reconstruction suggests a monosyllable, but forms such as Icen *dĩ̀*, Wuyar *lèì*, suggest that it may have originally been disyllabic. It is not clear why, if so, a velar should be preserved in item 15 'rope' and lost here, but the form is included for consideration.

21. PSCNC **-B-G-* '(red) monkey'
PI *ọ̀ɓùGọ̀* 'monkey' PUC *-ppókà è-/i-* 'monkey'

Cf Efik *é-bɔ̀k*, Tiv *(à)bàgù* 'red monkey', Ekoid A-B *-pŏg*, Ekoid F-U *-bŏg*, *-bŭg*. Cf further, without C_2, Yoruba *ọ̀bọ*, Gwari *òbe* 'red monkey', Nupe *ebe*, North Ivbie (Edoid group) *ovhe*, Legbo *ẹvu*, Kaka *mbu*. The correspondence of PI *ɓ* = PUC *pp* is puzzling, but there is little doubt that a genuine PSCNC item is involved here.

22. ?PSCNC **-D-G-*, **-D-K-* 'oil palm'
PI *lú ̀Gú* PUC *-dí o-/i-*
PP4 *-dìk ì-/í*

Although isolated, this is a possible cognate.

23. PSCNC **-C-K-(D-)* 'wash'
PI *sọ́Gọ̀rí* 'wash (pots)' B *-cùkud-* (CS 43a)
B *-cùkud-* (CS 410a) *-cùk-* (CS 435)
-cùk- (CS 410) *-cùg-* (ps 136)

Mukarovsky reconstructs PWN *CU-*, *CUK-* 'wash' (85), but the forms he cites outside Bantu show no second or third consonant.

It is perhaps suspicious that the third consonant of Ijọ corresponds to an apparent extension in Bantu. Even if this turns out to be a chance convergence, the correspondence of the second consonants is still valid. Unlike items 15-18, it shows PI *-G-* = B *-k-*.

24. PSCNC *-P-K-(ŋ-)* 'feather/wing'
PI *ípíGó(ŋó)* 'feather' B *-pìkò* 5/6 'wing'
PUC *-pé-* 'wing'

Mukarovsky reconstructs PWN *-PIKO* 'wing' (436). The forms he cites are from Gur, Togo Remnant, Eastern Kwa, and Benue-Congo; thus in B&S's classification this root can be reconstructed to the Central Niger-Congo level.

Possibly the original meaning was 'feather', as in PI, with item 4 as originally 'wing'.

25. ?PSCNC *-T-K-ŋ-*, *-T-G-ŋ-* 'penis'
PI *tóGòŋó* PJ *twín ku-/a-*

Although isolated, this seems a possible cognate, especially when such Jukunoid forms as Bika *ĭ-tkíŋ*, suggesting three consonants, are taken into account.

26. PSCNC *-D-G-ŋ-* 'become burnt'
PI *dòGì(ŋì)* 'burn up (v.i.)' B *-duŋgud-* 'become burnt'

Like items 5-6, this one shows Bantu *-NC-* corresponding to PI *-C-ŋ-* and thus strengthens the case for nasal metathesis in Bantu.

27. PSCNC *-K-G-ŋ-* 'neck'
PI *kòGòŋò* 'neck'
B *-kíŋgò*, (*-kííŋgò*) 9/10 'neck, nape' (CS 1086)

Cf Fante *ɛkɔ́ŋ*. B&S (p. 253, fn. 16) state this root is also found in Mande, which makes it, by their classification, a Proto-Niger-Kordofanian item.

The close vowel in the first syllable of the Bantu form may be due to stricture assimilation (cf Williamson 1977); cf item 1 'pool'.

28. ?PSCNC *-D-G-ŋ-*, *-D-K-ŋ-* 'surpass'
PI *dèGìŋì* ?PP *náŋ*
?PUC *tá(ŋi)*

Only a doubtful cognate, but included to stimulate discussion.

E. PI *-l-*

Although *-l-* is fairly common in PI, it is not easy to find cognates outside. The two cases below are suggestive but, being isolated, do not demonstrate regular sound correspondences.

29. PSCNC *-C-L-* 'choose'
PI *sèlè* B *-càd-* (CS 245)

Cf Eggon *slá*, Efik *sàt*. This is the only example so far of B *-d-* = PI *-l-* instead of *-r-*.

30. PSCNC *-K-L-* 'moon'
PI *àkàlú*

Cf Mande *kalo* (also observed by B&S). This is one of the items that supports B&S's view of Mande as a branch of the Niger-Kordofanian family, as against Mukarovsky's total exclusion of Mande from his Western Nigritic.

F. PI *-*m*-

PI *-m-* has already been demonstrated to correspond to PE *-mh-*, PJ *-m-*, PP *-m-*, B *-m-* (E&W 1977).

31. PSCNC *-*dh-mh-* 'animal, meat'

PI	*námá*	PP4	*ì-naŋ*
PE	*ẹ-nhamhị*	B	*-yàmà* (1a/2), 9/10 'animal'
PP2K	*i-nam/niam*		(CS 1909)
PP2J	*ì-nam*		*-nyàmà* (1/2), (7/8) 'animal'
PP3	*niam*		(CS 1909a)
			-yàmà, *-nyàmà* 9 'meat'
			(CS 1910)

Mukarovsky reconstructs PWN *-NAM-* 'animal, meat' (387) and *-JAM-* 'animal (meat)' (1974).

B&S regard the palatalization of *n-* to *ny-* in this item as a major innovation distinguishing their 'Nyama' (= Benue-Congo minus Cross River and Plateau 1) from 'Cara' (= Plateau 1). While *ny-* is clearly the innovative form, it seems that it arises from palatalization of *n-* by an *i-* prefix (cf Meeussen 1963 and BCCW 1:4). It could thus easily arise repeatedly and independently in various groups. Looking at the Plateau forms in BCCW and at Gerhardt's reconstructions (above), this is precisely what seems to have happened. The absence of palatalization in some other groups (e.g., Ẹdoid, Lower Niger, at least part of Delta-Cross) can be explained by the presence there of an *e-* instead of an *i-* prefix for the animal class (cf Williamson 1975). It would seem unwise to base a major classification on an innovation which may be a repeated, independent one rather than a shared one.

In the light of forms such as Ewe *è-lã̀*, the first consonant was probably oral before undergoing assimilation to the following nasal; cf Common Potou *ã̂'dã̂* (Stewart 1973).

32. PSCNC *-*th-mh-* 'tail'

PI	*òtùmə̀*	PJ	*-tùm* *u-/i-* 'horse-tail'
PE	*u-thiəmhi* *ə-*	PP	*-dum*

Cf Efik *ì-sìm*, PBC *-zum* *ku-/a-*.

33. PSCNC *-*T-mh-* 'stab, pierce'

PI	*témí* 'pierce, stab'	B	*-tụ́m-* 'stab' (CS 1866)
PE	*dumhi* 'pierce'		*-tụ́m-* 'sew' (CS 1865)
?PP	*tup* 'stab'		

Cf Mbam-Nkam *tím* 'sew' (Hyman, personal communication), possibly also Ekoid *-ʃ̃ím-* 'sew, pierce, jab' (BCCW 2:316).

34. PSCNC *-*T-mh-* 'pound'

PI	*tòmì*, *tèmì* 'pound (v.t.)'	?PUC	*tím(ì)* 'beat a person'
PE	*dumhi* 'pound'		

Cf also Efik *tím* 'pound'. It is difficult to relate B *-tú-* 'pound' (CS 1802) as it shows no C_2.

G. PI **-n-*

PI *-n-* has already been shown to correspond to PE *-nh-*, PJ *-n-*, PP *-n-*, B *-n-* (E&W 1977). For initial *n-*, see item 31. For *-n-* as 3rd consonant, see items 38-39.

35. PSCNC **-gh-N-*, **-kh-N-* 'stranger'

PI	*ìgòní* 'hospitality, stranger'	PP4	*ù-can*
		PUC	*-kèn(à)* *ò-/bà-* 'stranger, guest'
PJ	*kìn* *u-/ba-* 'guest, journey'	B	*-gèn̩ì* 1/2 (CS 805)
PP2K	*tien*		*-yènyi̩* 1/2 (CS 1904)
PP2J	*tsen*		

Mukarovsky reconstructs PWN *-GHÍNA-* 'stranger, guest' (129). Cf PBC *-kena u-/ba-*, Ekoid *jén* + V (Gerhardt 1974), Efik *è-sén~è-sién* 'stranger, guest'.

36. PSCNC **T-D-(K-)*, **-T-N-(K-)* 'ant'

PI	*ísọ́nọ́*	?B	*-cádàkù* 9/10 'driver/army ant' (CS 251)
PP2K	*suan*		
PP2J	*san*		*-cídákù*, *-tídàkù* 'driver/army ant' (ps 106)

Mukarovsky reconstructs PWN *-TILAKU* 'driver ant' (511), and some of his forms, e.g., Kissi *siàn-dó*, Grebo *tɛ̀né*, *tène*, are similar to the PI and PP forms. Since the item is in the animal gender, *c-* may well be due to the *i-* prefix acting on original *T-* (cf Meeussen 1963).

37. PSCNC **-mh-dh-* 'swallow (v.)'

PI	*mɛ̀n̩ì*	B	*-mèdi-* (CS 1294a)
PJ	*mèn*		*-mèn-* (CS 1299)
PP4	*mir*		*-mìd-* (CS 1306)
PUC	*mèn*		*-mìn-* (CS 1311)

Mukarovsky reconstructs PWN *MÌL-* 'swallow' (371). Cf Efik *mɛ̀n*, and Armstrong (1964, item 65), with Idoma *mlɛ̀*, where *ml* represents a single compound consonant. Given the prevalence of oral second consonants, it is assumed that the nasal C_2 is a result of assimilation to C_1. (Cf the Ijọ forms *m̀bi̩l̩í́* (Biseni) and *ì6i̩l̩í́* (Okordia) which do not fit into the reconstruction which accounts for the rest of Ijọ.)

A lenis C_1 is reconstructed on the basis of PJ, since in other cases PJ *m-* = PE *mh-* (E&W 1977).

H. PI **-ŋ-*

E&W argue at some length for the reconstruction of *-ŋ-* in Proto-Benue-Kwa (= PSCNC). They find no reason for postulating a contrast of fortis

and lenis *-ŋ-*, so *-ŋ-* is used in all reconstructions. PI *-VŋV* = PE *-VNV* (where *-N-* represents a weak nasal, probably *-ŋ-*; B. Elugbe, personal communication) = PJ *-Vŋ* = PP *-Vŋ* = B *-VV*. (Voorhoeve (1975) observes that B *-VV-* often corresponds to PBC *-VŋV*.)

The loss of stem-medial *-ŋ-* is therefore an important innovation in Narrow Bantu. It is likely that it is diagnostic for subgrouping within Wide Bantu, for original **ŋ* survives in at least two of the subgroups of Wide Bantu, Ekoid and Mbam-Nkam (see Crabb (1965) and the pseudo-reconstructions in Voorhoeve (1967)).

Table 4. Loss of *-ŋ- in Narrow Bantu contrasted with its survival in Ekoid and Mbam-Nkam

Ekoid M	Mbam-Nkam	Narrow Bantu	
-tûŋ	tóŋ	-túí	'ear'
-dûŋ		-dúí, -dúí	'knee'
-bîŋ		-bíí, -bí	'excrement'

The last example suggests that where the loss of *-ŋ-* resulted in a sequence of two identical vowels in final position they were later reduced to a single one. Perhaps this explains the irregular reflex in 'wing' (see discussion under item 4 above).

For *-ŋ-* as C_3 following a stop, eventually resulting in nasal metathesis, see items 4, 5, 6, 7, 24, 25, 26, 27, 28.

38. PSCNC **-T-ŋ-nh-* 'five'

PI	*sóŋóónó*	B	*-táánò* (CS 1662x)
PE	*ii-chiNənhi*		*-táánù* (CS 1662y)
PJ	*-ton i-*		*-cáánò* (CS 275)
PP3	[*tuŋun*]		*-cáánù* (CS 276)
PUC	*-tán(ò)*		

Mukarovsky reconstructs PWN *TSÁNU*? (*-TÁNU*) 'five' (562). Cf Efik *ì-tíòn*, Armstrong (1964, item 79), BCCW (2:428). Although PJ is reconstructed with only *-t-n*, some Jukunoid forms suggest it may have been more complex: e.g., Lissam *ì-tswóŋ*, Hwanye *i-truŋ*, Wukari *á-tswan-a*.

The PSCNC form is reconstructed with initial *T-*, assuming that the *C-*, *S-* forms are due to palatalization from the *i-* of a class 10 prefix (Meeussen 1963).

39. PSCNC **nh-ŋ-nh-* 'eight'

PI	*níŋínà*	B	*-nánè* (CS 1341)
PE	*i-nhiNanhi*		*-náánì* (CS 1342)
B	*-náánà* (CS 1340)		

Mukarovsky reconstructs PWN *-NIANI* 'eight' (397). Cf BCCW (2:440).

40. PSCNC **-n-ŋ-* 'four'

PI	*ìnóŋí*	B	*-nàyį́* (CS 1344)
PE	*-niNə*		*-nè* (CS 1345)
PJ	*-ndin i-/a-*		*-nnè* (CS 1345a)
PP2J	*-naŋ*		*-nà* (CS 1335)
PUC	*-nàŋì, -này*		*-nnà* (CS 1335a)
B	*-nàì* (Meeussen 1969)		*-nì* (CS 1353)

Mukarovsky reconstructs PWN *-NÁN-* 'four' (388), *NÍ-*, (*NÍA-*) 'four' (393). Cf Efik *ì-nàŋ*, Greenberg (1963, item 23), Armstrong (1964, item 68), BCCW (2:424).

41. PSCNC **-bh-ŋ-* 'faeces, excrement'

PI	*bíŋé* 'defecate; buttocks'	PUC	*-bíŋ dà-*
		B	*-bíì* 13, 6 'dung, excrement' (Meeussen 1969)
PJ	*-byíŋ a-*		
PP	*-biuŋ*		*-bí* 6, 13 (CS 135)

Mukarovsky reconstructs PWN *-BÍN-* 'excrements' (32). Cf PBC *-biŋ a-*, Akan *e-bĩŋ* 'excrement'. Stewart (1973) reconstructs Common Volta-Potou *'biỹ*, thereby confirming a lenis C_1.

42. PSCNC **-th-ŋ-(G)-* 'stick'

PI	*téŋí* 'tree, stick'	PP2K	*sian*
PE	*u-thaNi i-* 'tree'	?B	*-tóŋgà* 9/10 'heavy stick, cudgel' (CS 1794)
PJ	*-saŋ ki-/a-* 'branch (of tree)'		

Mukarovsky reconstructs PWN *-TSUANG-*? (*-TUANG-*) 'stick' (564). As he cites Temne *ke-theŋ*, it is a PNC item, in B&S's sense of PNC. Cf also Efik *ésáŋ* 'walking-stick', Karshi (Plateau 4) *u-nsa a-* 'branch'.

From the PI and PE forms, one would expect B *-tai* or the like. This is not found (there is good evidence that B *-tí* 'tree, medicine, stick' corresponds to a root elsewhere containing no nasal, PSCNC *-T-* (cf PUC *-tté kè/bè-*). The *-g-* of Bantu, however, recurs in PBC *-tanga ú/ti* 'stick, whip' and Nupe *tsùkuŋ* (cited by Mukarovsky). It is therefore postulated that an extension with a velar stop developed at some point within Eastern SCNC and metathesized in Nupe.

The shift of meaning to 'tree' is obviously an innovation in PE and PI.

43. PSCNC **-B-ŋ-* 'become many'

PI	*ɓó`ŋí* 'become many'	PE	*ɓuN* 'be many'

E&W suggest that the PE form was originally similar to the Ijọ form, with the sequence **ɓoNi* > *ɓõĩ* > *ɓũ*.

44. PSCNC **-f-ŋ-* 'swell'

PI	*fúŋá*	PCJ	*fùN*
PE	*fuNə*		

Cf also PLN *fnù/fnù* 'swell', Akan *hũŋ* (which, however, Stewart (1976) derives from underlying *hudi*). Mukarovsky reconstructs PWN *KHUM-*

'swell' (268), including the Twi form with others which indicate a different root from *-f-ŋ-*.

45. ?PSCNC **-K-ŋ-* 'smoke'

PI	*ègèŋù* (?)	?PP	*tiuŋ*
?PJ	*-kyáŋ̀ ma-*		

Cf also PLN *ẹ́-nwụ̀dụ̀* 'smoke', in which *nw-* may result from the combination of a weak velar plus *-ŋ-*, and Efik *ńsùŋ íkàŋ* 'smoke (or 'fly'?) of fire'. Mukarovsky reconstructs PWN *-ŋWÁKÌ* 'smoke', whose cognation with this item is doubtful. Not a very convincing item.

46. PSCNC **-bh-ŋ-* 'sand, dust'

PI	*íwòŋú* (w-?) 'sand'	PP	*buŋ* 'dust'
PE	*ə-mhuNə* 'ashes'	PUC	*-bùmá bò-*
PJ	*-búŋ̀ u-/i-*		

PE is assumed to have undergone assimilation of the initial stop to the following nasal. E&W suggest that this root is distinct from both PSCNC *-T-ŋ-* 'ashes' and *-B-* 'earth, ashes, dust' (cf PUC *-bó bò-* 'dust, sand'), which shows no nasal and co-exists in PE (and PUC?) with *-bh-ŋ-*. Cf BCCW (1:20).

47. PSCNC **-K-ŋ-* 'count'

PI	*kị̀ŋ̀ẹ̀*
PJ	*kwèŋ*

Cf Akan *kaŋ* 'count'.

48. PSCNC **-th-ŋ-(nh-)* 'fish'

PI	*ìDìŋ̀ì*	B	*-cụ́é* (ps 133)
PE	*e-chiNənhi*,		*-cụ́í* (9/6), 9/10 (CS 429x)
	-ch(i)ənhi i-		*-cụ́ị́* (9/6), 9/10 (CS 429y)
B	*-cí* 9/10, (11/10) (CS 333)		*-tụ́i* 9/10 (CS 1858)
	-cụ́ (9/6), (9/10) (CS 427)		

Mukarovsky reconstructs PWN *-KHIUNI, -KHUINI* 'fish' (262). Cf also PLN *á-znụ̀* 'fish', PBC *-sidi ì-/í-* 'fish' (?), Obolo (Lower Cross) *ìrîŋ* and Greenberg (1963, item 21). The palatalized forms with *C-* are assumed to be caused by the *i-* prefix.

49. PSCNC **-k-ŋ-* 'egg'

PI	*ə̀Gə̀ŋə̀*	PP3	*tii*
PE	*dhi-kiNə ə-*	PUC	*-kkèŋí è-/bò-*
PJ	*-kyi ri-/a-*	?B	*-gé* 5/6 (CS 791)
PP2K	*tii*	?	*-gí* (3/4), 5/6 (CS 809)
PPJ2	*-zeŋ*		

Cf Efik *ń-sèn*, PBC *-kiŋ/-tiŋ li-/a-*, PLN *ụ̀-kwnâ* 'egg', Armstrong (1964, item 22 and p. 14), BCCW (1:132). Mukarovsky reconstructs PWN *-GÍLA-* 'egg' (122) for what is probably, at least in part, the same item.

Hoffmann (1978, fn. 9) suggests that the Proto-Bantu form was **-gini*, because an alveolar second consonant is suggested by Guthrie's *-gìdí* (CS 814), and nasality in the stem is suggested by, e.g., Bemba *-ni li-/ma-* and by the nasal augment in, e.g., Poto (C. 36a) *mo-ŋkẹ*. If Hoffmann is correct in suggesting a nasal C_2 as the source of the nasal augment, nasal metathesis is implied as the process by which it reached its present position.

50. PSCNC **-GW-ŋ-* 'jaw'

PI	*àGBàŋà*	PUC	*-gbà*	*dè-/dà-*	'jaw, cheek'
PE	*-gwamhị*	B	*-báŋgá* 11/10 (CS 61)		

Cf Efik *m̀-báŋ* 'cheek'. Mukarovsky reconstructs PWN *-BAGA (-BANGA)* 'jaw' (8) for this item, including such forms as Limba *ku-bagabagaŋ* which support the argument for nasal metathesis in PI and Bantu. Cf. also PBC *-banga ku/i*, PLN *è-gbnà* 'jaw'.

51. PSCNC **-T-ŋ-*, **-D-ŋ-* 'urinate'

PI	*sáŋá*	PUC	*dyaŋ*

This root is tentatively proposed for further investigation.

Table 5. Medial consonant correspondences in PSCNC

	PSCNC	PI	PE	PJ	PP	PUC	B
LABIALS	-B-(A)	-ɓ-					-b-
	-B-(I)	-ɓ-	(-mh-?)	-P		-Ø-	-Ø-
	-B-ŋ-	-B-ŋ-				-b-ŋ	-b-
	-mh-	-m-	-mh-	-m	-m, (-p?)		-m-
ALVEOLARS	-T-	-r-	-Ø-	-t	-t	-n/D	-t-
	-D-	-r-	-Ø-	-n	-n/l	-n	-d-
	(N)-dh-	-n-		-n	-r	-n	-d/n-
	-D-ŋ-(I)	-D-ŋ-	-n/-nh-	-d			-nj-
	-D-ŋ-	-D-ŋ-					-nd-, (-d-?)
	-L-	-l-					-d-
	-N-	-n-		-n	-n	-n	-n-
	-nh-	-n-	-nh-	(-n?)	-n	-n	-n-
VELARS	-K-	-G-				-Ø-	-k-
	-K-ŋ-	-G-(ŋ-)		(-w-n-?)		-Ø/(-ŋ-)	-k-
	-G-	-G-		-K, -g	-k	-k-	-g-
	-G-ŋ-	-G-ŋ-		(-w-n?)	-ŋ	(-ŋ-)	-ŋg-
	-ŋ-(G-)	-ŋ-					-ŋg-
	-ŋ-	-ŋ-	-N-, (-mh-?)	-ŋ, -n	-ŋ-, -n	-ŋ-/-Ø-/(-m-)/-ŋ/-Ø	-VV-

Notes: Items in parentheses in the PSCNC column indicate conditioning factors: A = open vowel, I = close vowel, N = nasal, G = velar stop.

4. Discussion

The most controversial hypothesis of this paper is the proposal that PSCNC stems were often as long as three or four syllables, and that in

particular stems which show -C-NC- in Ịjọ and Bantu originate from a proto-language which had -C-C-N-.

An alternative suggestion by Stewart, when this paper was first presented, was that the original form of such stems was -C-CṼ. Nasal metathesis was then produced, in both PI and Bantu, by metathesis and segmentalization of the nasality, resulting in -C-NCV. The advantage of this hypothesis is that stems which in this paper are assumed to have three syllables can be postulated with only two.

A final decision between these two hypotheses must probably await the detailed reconstruction of more proto-languages. The following arguments in favour of the position adopted here may be adduced:

1. A few triconsonantal stems which do not involve nasal metathesis have been reconstructed; clear cases are items 38 'five' and 39 'eight', and more doubtful ones are items 3 'bury', 23 'wash' and 36 'ant'.

2. In some cases individual languages can be attested which show the proposed original sequence of consonants -C-C-N-. These cases will of course only become fully convincing when they are related to proto-languages and thus show that the sequence is original and not due to chance convergence or the addition of an extension. Examples are: items 7 'water' (Kagoma, Piti), and 25 'penis' (Bika).

3. In one case independent reconstructions of other proto-languages show the postulated original sequence -C-C-*ŋ*-: item 4 'wing'.

4. Varying forms in which a nasal is sometimes present and sometimes absent in the stem are neatly accounted for by assuming that a trisyllabic form -C-C-N- was sometimes shortened by losing its final syllable and sometimes by nasal metathesis. Cf item 4 'wing', where Bantu has lost the final syllable which is preserved in PI and PUC; cf also internal variants within Ịjọ, such as Kalabari *pḭ́kọ́* and Oporoma *púngọ́*, which are both derived from PI *ípíGọ́(ŋọ́)* 'feather' (item 24).

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Items in Elugbe and Williamson (1977) are included, prefixed by EW. Some have not been discussed in this paper because they lack a second consonant, they have no PI cognate, or they involve metathesis, which makes it difficult to determine which is C_2.

The numbers are the item numbers. The notation '(...disc.)' following a form indicates that it is mentioned in the discussion of one of the numbered items, although full evidence for it is not given.

charcoal	-K-dh-ŋ- (EW 3)
choose	-C-L- (29)
count	-K-ŋ- (47)
crab	-K-dh-ŋ- (EW 4)
defecate	-n- (EW 5)
dust (1)	-bh-ŋ- (46, EW 6)
(2)	-B- (46 disc., EW 6 disc.)
ear	-T-ŋ- (EW 7)
earth	-B- (46 disc., EW 6 disc.)
egg	-K-ŋ- (49, EW 8)
eight	-nh-ŋ-nh- (39, EW 9)
elephant	-n-(N-) (EW 10)
excrement	-bh-ŋ- (41, EW 11)
faeces	-bh-ŋ- (41, EW 11)
feather	-P-K-(ŋ-) (24)
fight v.	-kh-nh- (EW 12)
fish	-th-ŋ-(nh-) (48, EW 13)
five	-T-ŋ-nh- (38, EW 14)
fly n.	-kh-ŋ- (EW 15)
forget	-T-mh- (EW 16)
four	-n-ŋ- (40, EW 17)
fry	-m-D-ŋ-(n-) (EW 18)
give	-n-ŋ-K- (EW 19)
go	-G-D-ŋ- (5)
goat	-bh-D- (8)
head	-T-B- (2)
hear (1)	-N- (16 disc.)
(2)	-P-G- (16)
hospitality	-K-n- (EW 35; see also 'stranger')
I	-mh- (EW 20)
knee	-D-ŋ- (disc. before 38)
leopard	-k(p)-ŋ- (EW 21)
listen	-P-G- (16)
long, become	-dh-(C-)ŋ-(D-) (EW 22)
look at	-D-G- (20)
many, become	-B-ŋ- (43, EW 23)
meat	-dh-mh- (31, EW 1)
monkey (red)	-B-G- (21)
moon	-K-L- (30)
mould	-m-ŋ- (EW 24)
mouth	-n-ŋ- (EW 25)
neck	-K-G-ŋ- (27)
nine	-T-(ŋ-)nh- (EW 26)
oil palm	-D-G-, -D-K- (22)
paddle v.	-d-G- (37)
penis	-T-K-ŋ-, -T-G-ŋ- (25)
pierce	-T-mh- (33, EW 27)
platform	-T-D-ŋ- (6)
pool	-D-B- (1)
pound	-T-mh- (34, EW 28)
roast (1)	-T-ŋ (EW 29)
(2)	-k-D-ŋ-(n-) (EW 18)
rope	-dh-G- (15)
rotten, become	-B-D- (9)
saliva	-T-ŋ- (EW 30)
sand	-bh-ŋ- (46, EW 6)
see (1)	-bh-nh- (EW 31)
(2)	-D-G- (20)
sell	-d-D, -d-T- (11)
smoke	-K-ŋ- (45, EW 32)
snap	-B-nh- (EW 2)
squeeze	-m-ŋ- (EW 33)
stab	-T-mh- (33, EW 27)
stick	-th-ŋ-(G-) (42, EW 34)
stranger	-gh-N-, -kh-N- (35), -K-n- (EW 35)
strong, become	-K-D- (10)
surpass	-D-G-ŋ- (28)
swallow v.	-mh-dh- (37, EW 36)
swell	-f-ŋ- (44, EW 37)
tail	-th-mh- (32, EW 38)
three	-T-T- (13)
tongue	-dh-mh- (EW 39)
tree	-T- (42 disc., EW 34 disc.)
walk (1)	-G-D-ŋ- (5)
(2)	-kh-ŋ- (EW 40)
want	-D-G- (19)
war	-kh-mh- (EW 41)
wash	-C-K-(D-) (23)
water	-B-D-ŋ- (7, EW 42)
wing (1)	-P-B-ŋ- (4, EW 43)
(2)	-P-K-(ŋ-) (24)
wring	-m-ŋ- (EW 33)
year	-K-D-, -K-T- (12)

NOTES

[1] Elugbe (1978) proposes the term 'Ẹdoid' for the language group which has previously been called 'Ẹdo' by linguists, in order to eliminate the persistent confusion between the 'Ẹdo' *group* and the Ẹdo *language* which is spoken in and around Benin.
[2] Ịjọ is spoken in a large part of the Niger Delta, chiefly in Rivers State but also in the Bendel and Ondo States of Nigeria. It may be described as a 'language cluster',

i.e., it is more than a dialect cluster but less than a language group. The speakers think of themselves as speaking related 'dialects' though they recognize that many of them are not mutually intelligible. The varieties can be grouped as follows: (1) Eastern Ịjọ, comprising Kalabarị, Okrika, Ịbanị and (less closely related) Nkọrọ; (2) Nembe and Akassa; (3) Ịzọn (Central Ịjọ), containing all dialects west of Akassa except those in 4; and (4) Okordia and Biseni. These four groups can be regarded as different languages, although there is at least partial overlapping intelligibility between adjacent dialects of each pair of neighbouring languages: (1) and (2), (2) and (3), (3) and (4).

[3] The difference is that in Bantu, nasal sequences are found only in C_2 position: -CVNCV, whereas in Ịjọ they are found in both C_1 and C_2 position: V-NCV and -CVNCV.

[4] The high frequency of *y-* in Bantu, compared with its low frequency elsewhere, e.g., in Ịjọ, suggests that two or more sounds may have merged to yield Bantu *y-*. (Cf BCCW 2:336, where it is argued that PNC *gw-* > Bantoid *y-*.)

[5] It is possibly, though not necessarily, significant that in the Kolokuma dialect of Ịzọn *árú*, together with some but not all words of shape V*r*V, behaves tonally like a consonant-initial word (Williamson 1965:28).

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