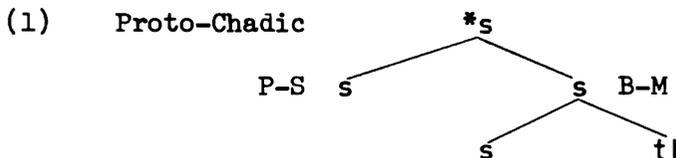


A NOTE ON LATERAL FRICATIVES IN CHADIC

Charles H. Kraft
Department of Linguistics
University of California, Los Angeles

In their highly significant article on comparative Chadic, Newman and Ma [1966] reconstruct for Proto-Chadic a phoneme *s. In the two major branches of Chadic which they deal with (Plateau-Sahel [P-S] and Biu-Mandara [B-M] they find P-S *s corresponding in eleven instances with B-M *s but in nine instances with B-M *tʃ (a voiceless lateral fricative, IPA ʄ). Their hypothesis with regard to these phonemes may be diagrammed thus:



They go on to suggest that among the "few sound changes [that] can be described as having occurred at the level of Plateau-Sahel and Biu-Mandara...[is] the split in Biu-Mandara of *s into s and tʃ" [1966: 225]. Previously, Newman had stated that only Maha among P-S languages has lateral fricatives and this only because of "the geographical proximity of the Maha to the Babur, Bura and Tera with whom they have had considerable contact over some length of time" [Newman 1965:58]. At that point in time, then, it looked feasible to attempt to explain the presence of lateral fricatives in B-M as the result of an innovation within B-M [Newman-Ma 1966:226] and their presence in one Plateau-Sahel language (Maha) as the result of borrowing. However, Jungraithmayr [1967:58] indicates that the presence of lateral fricatives in P-S languages is not limited to Maha but that they also occur in Warja and Pa'a (Afa). The statement by Jungraithmayr, though, could indicate that lateral fricatives, though present, are not at all common in these languages.

My own data, however, neither supports the claim that lateral fricatives are rare in P-S languages nor allows one to explain their presence simply as the result of borrowing--except, perhaps, in Ngizim, Maha and

Karekare, the only Plateau-Sahel languages included in the Newman-Ma study in which they seem to occur. My data shows some 26 occurrences in 400+ Ngizim words (10 occurrences in the 170 word list referred to below, only 2 of which correspond with lateral fricatives in the Bauchi languages--see below). There are only 8 occurrences of lateral fricatives in 400+ Karekare words, while Newman's published Maha list [Newman 1965] shows only 2 occurrences in 106 items. A borrowing hypothesis for these sounds then, seems possible both because of the quantity and the quality of the words in which lateral fricatives occur.

There are, however, a number of P-S languages spoken in the vicinity of Bauchi (not included in the Newman-Ma study) for which such a borrowing hypothesis does not seem possible--at least not unless it is establishable that these languages have in the past been in a kind of close proximity to B-M languages which they do not now manifest. The 350-400 items from my word list collected in these languages yields examples of lateral fricatives in the following numbers of items: Geji/Gezawa (53), Buli (50), Dirya/Diryawa (42), Seya/Seyawa (37), Dwot (33), Palci (32), Miya/Miyawa (26), Burma (17). As to the quality of the items--among the words employing lateral fricatives in some or (in a few cases) all of these languages are the terms for 'body', 'to break', 'cow', 'dove', 'egg', 'to fry', 'to go', 'ground', 'guinea fowl', 'to kill', 'meat', 'to pull', 'rainy season', 'rope', 'tamarind tree', 'tongue', 'to untie', 'woman'.

Several hypotheses might be advanced to explain this situation. Among them may be listed the following:

(a) These Bauchi languages are actually Biu-Mandara languages rather than Plateau-Sahel since both *s* and *ʈ* occur in both whereas *ʈ* does not occur (except as the result of borrowing) in the rest of P-S;

(b) The Bauchi P-S *ʈ* actually developed independently in the Bauchi Cluster of P-S, perhaps as a reflex of something other than Proto-Chadic **s*;

(c) Proto-Chadic possessed lateral fricatives from which the lateral fricatives in both B-M and P-S developed;

(d) At some time in the past these Bauchi languages were in prolonged close contact with certain of the B-M languages resulting in extensive borrowing of words with lateral fricatives in them from one group to the other;

(e) These languages are representatives of a major grouping within Chadic, equal in status to Plateau-Sahel and Biu-Mandara.

The first of the above hypotheses was the first to occur to the writer. It was, however, abandoned (at least for the time being) when initial comparison of the Bauchi languages items with my B-M lists indicated that it seemed to be quite a bit more difficult to postulate significant numbers of correspondences between the Bauchi languages and the B-M languages than between the Bauchi languages and P-S, except for items that are good for both P-S and B-M. Typical examples are:

(2)	<u>P-S</u>	<u>Bauchi langs.</u>	<u>B-M</u>
'arrow'	pas (Angas) pek (Dera) fik (Tangale)	pus (Buli) puse (Dirya) pis (Dwot)	xafta (Gabin) xava (Gava) ?ava (Gude)
'bird'	yar (Ankwe) yaro (Bolewa) yiddi (Tangale)	yatli (Dirya) nyel (Dwot) yadli (Geji)	?yaku (Kilba) kudeki (Njanye) diki (Tera)
'body'	šik (Cip) t+ka (Ngizim) cik (Pero)	tli (Buli) šiyuk (Burma) dli (Geji)	vugha (Gava) wudzu (Margi) vəðə (Pidlimdi)
'to give'	bursi (Gera) ba (Hausa) pən (Kofyar)	bidu (Buli) pere (Burma) biti (Dirya)	vɪŋ (Fali Jilbu) uvən (Mwulyen) vəri (Tera)
'ground'	yil (Angas) ?eli (Ngamo) yelli (Tangale)	atli (Buli) ?atli (Dirya) yatli (Seya)	xidi (Fali Gili) xaxa (Gabin) xaya (Nakatsa)
etc.			

A second explanation might be that tl in the Bauchi languages developed independently of the s-tl split in B-M, perhaps as a reflex of something other than Proto-Chadic *s. A number of items showing lateral fricatives in Bauchi languages, for example, seem to correspond with items showing l in the other P-S clusters, e.g.:

- (3) 'to break' P-S (excluding Bauchi)--ɓulwo (Bolewa), ɓallee (Hausa), ɓari (Gera), ɓireni (Dera)
Bauchi languages--ɓatitiy (Dwot), ɓatika (Geji)
- 'egg' P-S--ɓilla (Ngamo), wolu (Bolewa), yula (Dera)
Bauchi--mbutl (Dwot, Seya), mbutli (Geji), mbwetl (Palci)
- 'ground' P-S--yil (Angas), ɤell (Ngamo), yelll (Tangale)
Bauchi--atl (Buli), ɤatli (Dirya), yatl (Seya)
- 'meat' P-S--lu (Ngamo, Dera, Cip), luwa (Sura, Kofyar),
tluwəy (Ngizim)¹
Bauchi--tlu (Buli, Dirya, Geji), tlo (Palci, Dwot, Burma), tlilwi (Miya)
- '(?)morning' P-S--parsughun (Burma), bitlun² (Kofyar), mbitlum² (Ankwe)
Bauchi--b+tl+nda (Seya), lutlowi (Geji), tlitlin (Palci)

(see also 'bird' in (2) above)

There are, however, a number of examples of Bauchi tl corresponding to s in the rest of P-S, e.g.:

- (4) 'body' P-S--zwo (Bolewa), ɕik (Cip), jikil (Hausa),
 BUT NOTE ilk (Tangale)
Bauchi--dil (Geji, Seya, Dwot, Palci, Dirya), tlil (Buli), ɕiyuk (Burma)
- 'to drink' P-S--sa (Bolewa, Karekare), səw (Ngizim), ɕuwa (Sura), ɕegho (Pero)
Bauchi--tlawil (Geji), tlilyu (Palci), tlilx (Dwot), slie (Burma), sa (Miya)
- 'to fry' P-S--suru (Bolewa, Gera), sur (Angas, Ngamo),
sooyaa (Hausa)
Bauchi--wudlurun (Palci), wutli (Geji), sure (Burma)

¹Note that this Ngizim form differs from that listed by Newman-Ma (sowel) and possibly weakens their reconstruction of *s as the first consonant in the Proto-Chadic term for 'meat'.

²These two instances of tl are, apparently, not to be interpreted

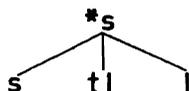
'guinea fowl'	<u>P-S</u> --šom (Ankwe), zaaboo (Hausa), zabunu (Ngizim) <u>Bauchi</u> --dlubm (Seya), dlɪbɪn (Palci), tɪɪm (Buli), dlɪmuni (Dirya), šapm (Burma)
'rope'	<u>P-S</u> --zori (Bolewa, Karekare, Ngamo), zeyɪ (Ngizim) <u>Bauchi</u> --tlur (Dwot), tɪɪr (Buli), tlurum (Seya), suru- (Burma), za (Geji)

These facts might suggest the following three hypotheses as explanations:

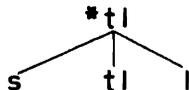
(5) *P-S



(6) *P-S



(7) *P-S



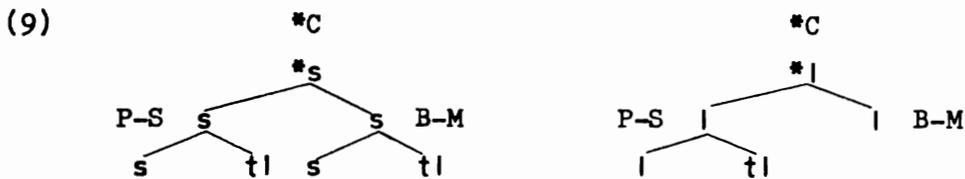
Of these, theory (7) seems a bit more believable as an explanation of the results of the split but may cause problems with regard to explaining how the lateral fricative got into *P-S--unless the B-M data can assist in this.

Not many of the items containing lateral fricatives in the Bauchi languages, however, appear to correspond with B-M items showing lateral fricatives. A rough count of the same 170 items in 34 B-M languages and the 8 Bauchi languages under consideration here shows the following:

as lateral fricatives. I have underlined them to indicate this.

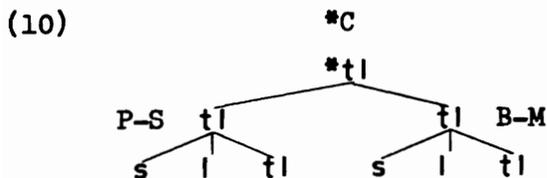
(8)	Comparisons showing one or more instances of lateral fricatives	Parallel items (whether or not likely cognates) showing lateral fricatives both in B-M and <u>Bauchi langs.</u>	Possible correspondences between items with lateral fricatives
B-M (34 langs)	41	15	5-7
Bauchi (8 langs)	48		

Newman-Ma [1966] trace lateral fricatives in B-M to a Proto-Chadic *s (see their examples #8, 11, 18, 56, 63,³ 70, 77, 87, 111). If, then, on the basis of the above Bauchi examples, we postulate the dual development of Bauchi t| from Proto-P-S *| and *s, the tree diagrams could look like this with no postulated connection between one set of the Bauchi lateral fricatives (i.e., those from *|) and those of B-M:



Such a hypothesis does not appear likely, however, since it requires three separate developments of t|--twice in P-S and once in B-M.

If, however, further investigation can establish a relationship between Bauchi lateral fricatives and B-M lateral fricatives, it might be feasible to postulate a Proto-Chadic *t| as follows:



³This is the word for 'meat' referred to in footnote 1 above. See the appendix listing of this item for further weakening of the *s reconstruction.

Data is now being assembled to attempt to prove, disprove or modify such a hypothesis.

Given the fact (shown above) that there do not seem to be very many potential correspondences between B-M lateral fricatives and those in the Bauchi languages the possibility of accounting for them by means of a theory of borrowing appears diminished. I feel, however, that the present very incomplete state of our knowledge does not afford us the luxury of discounting even those hypotheses that presently seem least likely.

The possibility that the Bauchi languages may represent a major grouping parallel to P-S and B-M needs much more careful treatment than it has been possible to give here. This hypothesis will have to await further study.

REFERENCES

- Jungraithmayr, Hermann. 1967. "A brief note on certain characteristics of 'West Chadic' languages." Journal of West African Languages 4:57-8.
- Newman, Paul. 1965. "A brief note on the Maha language." Journal of West African Languages 2:57-8.
- Newman, Paul, and Roxana Ma. 1966. "Comparative Chadic: Phonology and lexicon." Journal of African Languages 5:218-51.

APPENDIX I

Examples of s/z in both P-S and B-M corresponding to Bauchi t|/d| and reconstructed as Proto-Chadic *s/z

	<u>Proto-Chadic</u> <u>[Newman-Ma]</u>	<u>P-S</u>	<u>Bauchi</u>	<u>B-M</u>
'body'	**z- ⁴	zowi (Gera) ziwo (Bolewa) šik (Cip) jikii (Hausa) cik (Pero)	dli (Geji, Seya, Dwot, Palci, Dirya) tli (Buli) šiyuk (Burma)	su?u (Fali Mucella) suto (Bacama) dza (Bura, Kilba)
'to drink'	*s-	sa (Bolewa, Karekare) səw (Ngizim) šaa (Hausa) šwa (Sura) žegho (Pero)	tlaw (Geji) tliyu (Palci) tlix (Dwot) siye (Burma) sa (Miya)	saxo (Fali Gili, Higi Futu) səw (Gude) sa (Hwona, Bura, Wamdiu) ša (Mandara) za (Tera, Pidlimdi)
'to fry'	*z-r-	suru (Bolewa, Gera) sur (Angas, Ngamo) sooyaa (Hausa)	wudlurun (Palci) wutli (Geji) sure (Burma)	šili (Fali Kiria) sur- (Gude) sura (Ga'anda, Boka) sulti (Cibak) sula (Zaghvana)
'guinea fowl'	**z-b-(n) ⁴	šom (Ankwe) zabunu (Ngizim) zaaboo (Hausa)	dliubm (Seya) dliibin (Palci) dli+mun (Dirya) tlim (Buli) šapm (Burma) djon (Geji)	zavunu (Fali Mucella) zuvune (Higi Nkafa) šefene (Gabin) civan (Tera) ts+vur (Bura, Margi, Wamdiu)
'rope'	*z- [CHK]	zori (Bolewa, Ngamo, Karekare) zeyi (Ngizim) wori (Dera)	tlur (Dwot) tlurum (Seya) tliir (Buli) suru- (Burma)	zu?u (Fali Mucella) zu?wa (Gude) zuwe (Higi Nkafa, Higi Kamale) suwa (Bura, Cibak)

⁴The double asterisk indicates that Newman-Ma [1966] regard the reconstruction as of "second level confidence".

APPENDIX II

Examples of P-S l/r, B-M l/r or tI/dI corresponding to Bauchi tI/dI and reconstructed as Proto-Chadic *l/r

	<u>*C [N-M]</u>	<u>P-S</u>	<u>Bauchi</u>	<u>B-M l</u>	<u>B-M tI</u>
'to break'		(?) kiya (Karekare) karyee (Hausa) ktlu (Ngizim) (?) dwaleni (Dera)	kwetlu (Buli) tatika (Geji) celika (Geji) ngulun (Palci)	ngulo (Higi Baza) k+luma (Gava)	ngitI (Fali Mucella) ktitI (Fali Gili) ntle (Higi Kamale) kintI (Gude) xutlara (Pidlimdi) ndlima (Gava)
'egg (testicles)'	* <u>(N)g-(r)</u>	wolu (Bolewa) yula (Dera)t bila (Ngamo)t	mbutI (Dwot, Seya) mbutII (Geji) mbwetI (Palci) wansi (Burma) wela (Seya)t	ngala (Hwona, Boka) ntsula (Cibak)t alin (Gude) kara (Hwona)t s+bulu (Higi Futu) šimpuri (Fali Kiria)	ngardII (Tera) nyitle (Higi Ghye) 'yadlun (Fali Jilbu) tIItII (Bura) (?) tIiya (Gava)
'meat'	* <u>s-(w-)</u>	lu (Ngamo, Dera, Cip) luwa (Sura, Kofyar) tluwəy (Ngizim)	tlu (Buli, Dirya, Geji) tluu (Seya) tlo (Palci, Dwot, Burma) tIIwi (Miya)	luwa (Gude, Gava, Galavda) liwo (Njanye) lu (Pidlimdi)	dIuwe (Fali Jilbu) tIuwu (Fali Gili) tIti (all 5 Higi) tluwa (Hwona, Boka) dIu (Tera)

APPENDIX III

Examples of /r/ in P-S and B-M corresponding to Bauchi t|/d| and reconstructed as Proto-Chadic *|/r

<u>*C [N-M]</u>	<u>P-S</u>	<u>Bauchi</u>	<u>B-M </u>
'to break' *ɓ-() -	ɓulwo (Bolewa) ɓari (Gera) ɓireni (Dera) ɓallee (Hausa)	ɓatitly (Dwot) ɓatika (Geji) ɓalta (Miya)	ɓur (Fali Jilbu) ɓule (Higi Nkafa, Higi Kamale) ɓulu (West Margi) -ɓuga (Galavda)
'woman'	mat (Sura, Cip, Angas) mace/maataa (Hausa) mandu (Ngamo)	mutlu (Buli) mwutli (Dirya) (?) kili (Geji)	mali (Fali Gili) male (Higi Nkafa, Higi Kamale) mwela (Bura, Cibak) mala (Margi, Kilba)

APPENDIX IV

Examples of P-S l(?), B-M l/r or s corresponding to Bauchi t|/d| and reconstructed as Proto-Chadic *l/r

	<u>P-S</u>	<u>Bauchi</u>	<u>B-M l/r</u>	<u>B-M s</u>
'to untie'	(?) futku (Ngizim)	put l (Dirya)	pələnto (Higi Futu)	pwasan (Njanye)
	(?) fowun (Cip)	p+t k w (Geji)	p ri (Fali Mucella)	kwəsəŋ (Hwona)
	(?) bađu (Karekare)	bat t u (Seya)	mp l l (Cibak)	
			p+r n (Gude)	
			bulaxe (Higi Kamale)	