Introduction to the Temein languages

Roger Blench
Kay Williamson Educational Foundation

CONVENTIONS

I any high front vowel
N any nasal
T voiced dental or retroflex plosive

1. The Temein cluster

The Temein cluster consists of three languages spoken in the Nuba Mountains, Sudan, NE of Kadugli. Little has been published on these languages, but Roland Stevenson (†) elicited substantial lexical data during the 1970s and 1980s, mostly from Khartoum-based informants[1]. For further information about the Stevenson papers see Blench (1997). This paper is based on Stevenson's material, on unpublished notes made by Gerrit Dimmendaal[2] and on SIL files in Khartoum which contain significant lexical data contributing towards a phonology of Tese (cf. also Yip 2004).

---

[1] Following Roland Stevenson's death in 1992, his mss. were dispersed for potential editing. The Temein data was held by Robin Thelwall but nothing came of this and in 2006, the documents were passed to me. Following a request by Tyler Schnoebelen of Stanford University, scans were made of the original datasheets with a view to typing the material. This was begun but had to be completed by Roger Blench in mid-2007. Stevenson's originals can be downloaded from my website, as also the retyped data, re-arranged in a comparative format at http://www.rogerblench.info/Language%20data/Nilo-Saharan/Eastern%20Sudanic/Temein%20cluster/Temein%20page.htm

[2] Thanks to Gerrit Dimmendaal for making his unpublished materials on Temein available.

Table 1 shows the three members of the Temein cluster with their ethnonyms and the names of the language:

Table 1. Temein cluster; ethnonyms and language names

Common name	People	Language
Temein (Stevenson)	ɔ̀rɔ́ŋgɔ̀ʔ	lɔ́ŋɔ na rɔŋɛ
Temein (Dimmendaal)	ɔ́ràntɛ̀t pl. kààkíní ɔ́rɔ̀ŋɛ̀	ŋɔ́nɔ́t ná ɔ́rɔ̀ŋɛ
Keiga Jirru	Đóni	alŋak na Đóni
Teisei umm Danab	Ʈɛséʔ	ilək ka Ʈɛséʔ

Sources: Stevenson and Dimmendaal mss.

The Ethnologue (Lewis 2009) conflates these last two as a single language.

Teisei is an Arabic name meaning 'mother of a tail' and by extension 'little he-goat', and may thus not be a true ethnonym. In this paper, the common reference names are used to provide easy reference to existing publications. According to the discussion in Yip (2004), this etymology is dispreferred and a derivation from 'These', purportedly meaning 'scattered' in Temein, has been adopted. There is no settled spelling convention for Tese, appearing as These and Teisei in different sources, so Tese will be used in this discussion, pending an expression of the wishes of the community.

Table 2 shows the locations and populations of the Temein cluster. The Temein were in the SPLA area in the south of the Nuba Mountains and so have been less affected by the war than some of their neighbours. Even so, many Temein have been displaced to Khartoum and elsewhere and have been returning since peace was signed. The situation following the renewed outbreak of hostilities in 2011 is unknown.

Table 2. Temein cluster; locations and populations

Group	Location	Population
Temein	Temein hills southwest of Dilling, between Jebels Ghulfan Morung and Julud (Gulud)	10,000
Keiga Jirru	Keiga Jirru west of Debri, and in 6 villages, northeast of Kadugli	1000 ?
Tese	Tesei hills	1000 ?

Map 1 shows the approximate location of the Temein languages.

Map 1. Location of Temein languages
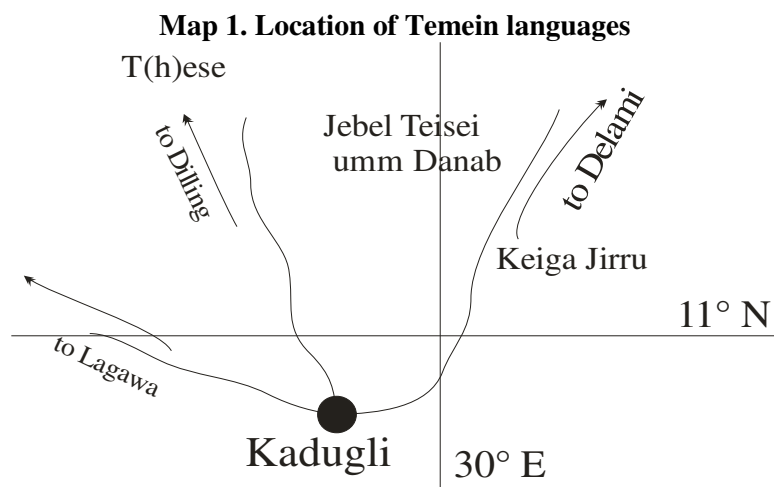
2. The classification and coherence of the Temein cluster

2.1 Classification

Although the Temein cluster is generally agreed to be part of Eastern Sudanic its further classification has posed a problem to historical linguists. Bender (2005), the most recent review of East Sudanic, places Temein with

reservations in his Ek grouping along with Surmic, [Eastern] Jebel, Daju and Nilotic. Ehret (2001:70) groups Temein with Nyimang within his 'Kir' group, a classification which suggests the author has not seriously considered the relevant data (none of which is referenced in the bibliography). In the Ethnologue (Lewis 2009) it is put together with Nyimang, Tama and Daju as part of the 'Western' Nuba Mountains group of Eastern Sudanic. There has been no linguistic argument in print to support such a grouping and it must be presumed it is purely geographical. Temein displays numerous features characteristic of Nilo-Saharan languages in the Nuba Mountains, including morphophonemic alternation of stops, t- singulatives and 'moveable' k-affixes. Nonetheless its classification remains problematic due to the limited numbers of clear cognates with neighbouring languages.

2.2 Coherence

The three languages of the Temein cluster are quite diverse, but share enough lexemes for them to be regarded as a single genetic group. Table 3 shows some typical sets of closely related words;

Table 3. Common lexemes justifying a Temein cluster

Gloss	Temein	Tese	Keiga Jirru
mud	ʈɔk	ʈɔk	ʈɔk
split	kɔ́rù	kɔ́ru	kɔ́rù
fish pl.	kálálàʔ	kálálaʔ	káála
to hear	ʈóŋwà	ʈuŋwa	ʈɔŋwa

A crucial factor in differentiating these languages is that both Tese and Keiga Jirru have come under extensive Kadu influence, especially from languages like Tulishi. Where Temein differs from the other two languages, it often retains the Nilo-Saharan root, whereas Tese and Keiga Jirru have replaced it with a borrowing from the Kadu languages (often with fossil morphology intact, making the analysis of number marking more complex).

3. Phonology

3.1 Vowels

It is likely that all the Temein languages all show typical ± ATR vowel sets with either nine or ten vowels, as in other related Eastern Sudanic languages. These tend to participate in cross-height vowel harmony, where vowels of one or other set co-occur in individual words. However, if so, this is somewhat obscured by Stevenson's transcriptions where all varieties of vowels occur together. Stevenson notes that he is sceptical of a nine-vowel system and although he sometimes marks the additional close-mid vowels and schwa, the transcription is wayward at best. As a consequence, he did not realise that changes in the ATR status of vowels can be a number-marking strategy. It may also be that the pervasive processes of segment deletion and re-affixing have now made these underlying patterns difficult to see. According to Yip (2004), the vowels of Tese [These] are as follows (Table 4);

Table 4. Tese vowels

	Front	Central	Back
Close	i			u
	ɪ	ʊ	
Mid	e	ə	o
	ɛ		ɔ
Open		a	

Dimmendaal (p.c.) records a broadly similar inventory for Temein and a similar pattern may well be reconstructible for proto-Temein.

Examples of long/short contrast exist for most vowels although minimal pairs are not easy to find:

Temein doubled vowels

VV	Temein	Gloss
ii	ììṭì	dig
ɪ	rííŋgìs	tail
ee	nèègí	yesterday
ɛɛ	ɛ̀ɛ̀n	'porridge'
	kɛ̀ɛ́n	face
uu	wuuⁱny	afternoon
	kúú	blow on fire
oo	óòm	belly
ɔɔ	sɔ̀ɔ̀	animal
aa	nààní	I

However, there are sufficient examples of two identical vowels with dissimilar tones to suggest that this cannot be a simple length contrast:

Temein VV sequences with dissimilar tones

Temein	Gloss
kɛ̀ɛ́n	face
láàŋɛ́	when?
pɔ́ɔ̀	well
kwɔ́ɔ̀rlàʔ	goat (m.)
óòmɔ̀ nṭóbàn	happy
kwîîʔ	houses

Dissimilar VV sequences in Temein tend to be confined to V + high vowel, and these are usually best analysed as vowel + semi-vowel. The examples below show the cases of these sequences in Temein with a proposal for their re-analysis.

Gloss	Source	Analysis
yes	áu	áw
drink	ausà	awsà
yawn	amáî	amây
moon, month	kóù	kôw

The only other VV sequence regular attested in the Temein cluster is in Temein itself, i/ɪ + a sequences, usually with a high-low tone pattern.

Gloss	Temein
hare	ʈíàʈ
bamboos	giàk
beard	bíàk
ewe	kɪríàŋ

These sequences presumably arose from intervocalic consonant deletion, and the characteristic tone pattern suggests that this results from affix copying with the low tone central vowel in contrast to a high-tone stem vowel.

Mid back vowels following velars are probably responsible for non-phonemic labialisation. The raised ʷ in the data follows Stevenson's transcriptions, but there is no evidence of a genuine distinction.

Gloss	Temein	Tese	Keiga Jirru
buy	kɔ́lɔ́ʔbà		kwɔ́lbà
chicken	kókoròk	kóókoròk	k(w)óóròk
where?	kʷóó		
ewe		kʷɔ́gɔmìk	

Cʷ plus mid back vowel in Temein can assimilate and raise the vowel as the following example shows;

light (not heavy)   pùl, pwɔ̀l

However, Yip (2004) shows that /kw/ and /ŋw/ are contrastive in initial and medial position in T(h)ese. For example;

Gloss	Tese	Gloss	Tese	Tese	Gloss	Gloss	Tese
eagle	kálá	bull	kwálá	ʈáká	forehead	ʈɔ̀kwàŋ	to plant
neck	ŋàlɔ̀	big house	ètáŋá	ŋwáník	ear	tɔ̀ŋwàŋ	to listen

3.2 Consonants

Temein languages show considerable allophony due to the morphophonemic alternations typical of the region. As a consequence, the consonant inventory could be analysed as quite reduced. A typical representation might be;

	Labial	Dental	Alve-olar	Retro-flex	Pala-tal	Velar	Labio-velar	Glot-tal
Plosive	p (b)	(t̪)	t (d)	ʈ (ɖ)	j	k (g)	kʷ	
Implosive	ɓ		ɗ					
Nasal	m		n		ɲ	ŋ	ŋʷ	
Trills			r	(ɽ)				
Fricative		(f)	s					(h)
Approximant					y		w	
Laterals			l					

where the bracketed symbols are positional allophones of their counterparts. Final k is often unreleased or realised as a glottal stop. Stevenson marks ṭ in his data to represent the alveolar /t/. ɖ/ð are usually allophones. Temein languages contrast retroflex ɖ/ʈ/ɽ with dentals d/t/r. The operations of this type of morphophonemic alternation can be seen in Keiga Jirru;

Gloss	Unmarked	Plural
hare	ʈɛk	kɪɖɛk
knife	ʈoroŋ	kuɖoroŋɛʔ
grave	ʈuaŋàk	kuɽuáŋ̀ɛ̀
ram	ʈuŋwáʔ	kuɽuŋwɪk

The contrast between ɓ/b and ɗ/d is not well established and these may exist in free variation as is common in Niger-Congo.

Geminate consonants occur in all three languages. Yip (2004) gives contrastive examples of geminate consonants in Tese as follows;

Nouns	/ʈʈ/, /nn/, /mm/, /ll/, /ss/
Verbs	/pp/, /kk/, /ʈʈ/, /ɽɽ/, /ll/
Adjectives	/ll/, /rr/

The Temein languages have a small number of initial homorganic nasals, occurring principally in front of -ʈ. Single examples of ns-, nɖ- and nd- have been recorded. Such sequences are relatively common word-medially.

Temein initial homorganic nasals

Temein	Gloss
nʈóbàn	good
nʈàkànì	here
nʈèʈìʈèʈ	meat
nʈèrɛ̀	red
nɖíʔjì	sweet
rùn, nɖőrùn	old (things)
nsìɗìɗì	small

It is also possible to have initial tone-bearing nasals which constitute a separate syllable prefixing a consonantal stem, for example;

<div style="text-align:center">spear   ŋ̩sɔ̀</div>

Only a larger sample of lexemes will permit a comprehensive analysis of prenasalised consonants.

3.3 Tone

Stevenson considered all three languages have a three-tone system, a claim re-asserted in Yip (2004). Stevenson notes the following contrasts for Keiga Jirru;

<div align="center">

álè   I hoe
álé   I say
ále   to suck

</div>

Stevenson transcribed his data without glide tones but these are almost certainly present. Yip (2004) notes for Tese;

<div align="center">

Falling tone   mâl porcupine âr path
Rising tone   dǎl   child

</div>

However, Dimmendaal (p.c.) considers a system of High/Low plus non-automatic Downstep a better description of the system and inconsistencies in Stevenson's tone-marking do suggest this would be a more credible interpretation.

4. Morphology

4.1 Number marking in nouns

Surface forms for number marking are highly diverse and not easy to predict, even though the basic elements are relatively few. Temein languages, as elsewhere in Eastern Sudanic and Nilo-Saharan, operate a three-term system of number-marking with an unmarked form plus singulatives and pluratives (see e.g. Dimmendaal 2000; Andersen 2000; Blench 2006). However, the erosion of this system has meant that nouns where three terms occur are

relatively rare. Traces of characteristic Nilo-Saharan 'replacive' systems are shown in Table 5;

Table 5. Temein cluster 'three term' number marking

Language	Gloss	Singulative	Unmarked	Plurative
Temein	dura	mórɪŋɪnʈɛʈ (one grain)	mórɪŋɪs (head of grain)	mórɪŋ (dura plant)
Keiga Jirru	meat	bɪlanɖàk (one piece)	ɪnɖàk	kɪnɖaɖìk
Keiga Jirru	medicine	móreɖàk	—	komórò (roots)
Tese	fat n.	nányɛ́ɖɔ̀k	nányàʔ	kɪnányàʔ

The sources do not give precise meanings for some of the pluratives and unmarked forms.

4.2 Number marking strategies: nouns

Number marking in Temein displays typical Nilo-Saharan characteristics, although these are combined in ways that are difficult to predict for individual nouns. The most common elements are;

- 'moveable k-' (with an underspecified vowel), prefixed, suffixed or both, where prefixed kV- is a typical strategy for Arabic loanwords
- addition of final –NI
- addition of final –a[ʔ]
- singulative marking with –Iʈ, -Is
- vowel lengthening and unpredictable changes in vowel quality
- changes in ATR quality of the vowel
- suppletion is present although not always easy to identify due to vowel changes and shortening

What makes the analysis of Temein cluster morphology so challenging is the way multiple strategies may occur with individual singular/plural pairings. Some proposals are made as to the ordering of affix application, but these must be regarded as tentative, since in many cases they are premised on a single example.

Moveable k-

Moveable k- is one of the best-identified affixes in Nilo-Saharan. Greenberg (1981) calls it a 'stage III article' and Ehret (2001: 176, 181) both an 'adjective suffix' and a 'noun particularizing prefix'. Bender (1996:75), who considers it a 'noun-class formative remnant', notes that it is widespread but not universal in Nilo-Saharan. In the Temein cluster k- is strongly associated with plurals and can occur before, after and at both ends of a word. The underspecified vowel often results in a copy of the stem vowel. The vowel can disappear when the stem begins with an approximant. The example shows surface forms in Temein;

Gloss	Unmarked	Plural
belly	óòm	kómɪk
big	m̀bù	kɪmbɪk
hill, stone	kúrɛʈ	kukúrɛʈ
shield	wór	kwòráʔ

However, the allomorph has an affix –Vk that can mark singulative as in Tese;

Gloss	Singulative	Unmarked
firewood	márɛnyɪk	márɛŋ
ear	ŋwánɪk	kwɛɛŋ
eye	náánɪk	kɛnyɪŋ
fish	kɛlɛɖak	káála

In the case of the singulative for 'fish', it appears that it has already been marked once as a singulative with –ṭ and the –Vk has been subsequently affixed.

Addition of final –NI

Less common is –NI or -IN in final position where –I- stands for a high front vowel from either ATR set. Temein examples are as follows;

Gloss	Unmarked	Plural
friend	wórɪnyà	kórɪnyànì
hanging frame	sɛsɪlàŋ	sɛsɪlàŋì
moon	kóù	kikówɪn

Bender (1996:75) also discusses N- affixes in Nilo-Saharan, reprising observations by Tucker & Bryan (1966:22-24). Storch (2005:46) also takes up the issue of N/K and T/K alternations in relation to Nilotic noun morphology. However, those identified appear to be principally n- singular affixes that alternate with k- plurals, which is clearly not the case in Temein.

Addition of final –a[ʔ]

Another less common affix is final –à[ʔ] marking plurals. This always co-occurs with other affixes, both prefixes and suffixes. Some examples from Temein are shown in the table;

Gloss	Unmarked	Plural
gourd	tɔŋ	kɪtɔŋàʔ
dikdik	wɪr	kuwɪráŋɪk
heart	óòm	tɔɔmà
fly n.	óŋìs	kóŋàʔ

Bender (1996:76) mentions cases of an a- prefix that was perhaps originally a singulative marker and a few cases of this occur in Temein, for example **àmìs** 'bone'. Prefixed a- is probably an allomorph of -àʔ. The identity of the consonant that has been reduced to ʔ is not clear but it could well be –t, generally occurring as a singulative affix elsewhere in the group. In two cases

it has been lost completely. 'Dikdik' appears to have three affixes, –a[ʔ], NI- and –k applied sequentially.

Singulative marking with –Iʈ, -Is

Temein cluster languages also have singulatives –Iʈ, -Is. Some examples from Temein are shown in the table;

Gloss	Singulative	Unmarked
grass	ɔyɔmɪʈ	ɔyɔm
horn	kɪnɪʈ	kɪn
seed	ʈɛɛʈɪʈ	ʈɛɛʈ
tree	mɛrɛŋɪs	mɛrɛŋ
fly n.	ɔ́ŋìs	kɔ́ŋà?

-VS is probably a (rare) allomorph of –VT or a relic of a three term plural system.

Lengthening of V₁ vowels

The first vowel is lengthened following initial k-. The examples shown are from Tese;

Gloss	Unmarked	Plural
Toad	kwudó?	kwúúdó?
Navel	kwúllɔ?	kwúúllɔ?
Net	kömɪk	köömɪk
Cloth	káɖà?	kááɖà?

The probable source of this is consonant deletion. A comparison between Temein and Tese shows how this pattern may have developed. A prefix is added to a word with initial kV-. The intervocalic –k- is then lost (possibly with its attendant labialisation) and the result is a doubled vowel in the first syllable.

	Temein		Tese	
	Unmarked	Plural	Unmarked	Plural
frog, toad	kwúɗɔ́ʔ	kúkwúɗɔ́ʔ	kwʊɗɔ́ʔ	kwúúɗɔ́ʔ

Stevenson notes that this is common in Tulishi, a Kadu language, the source of some borrowings into Temein cluster languages. For example;

Tulishi   mountain   nina   niina

Changes in ATR quality of the vowel
There are some examples of change in ATR quality marking number as noted by Dimmendaal (p.c.) for Temein;

mountain   bɔ̀bɔ́rɔ̀t   kì-bóbóròt-ì

Suppletion
Suppletive plurals occur in the Temein cluster. For example;

Table 6. Temein suppletive plurals

Gloss	sg.	pl.
person	ɖéénì	nɛɛʔ
arm, hand	nínât̪	kɛ́n
goat (f.)	nâ	kàí
cow	ńt̪èŋ	kít̪úk
eye	níŋìnàt̪	kɛ̀ɛ́n
woman	líkámè̀	lúgît̪
rope	mìs	máà
spear	ṇsɔ	kın
slave	ɔdɔn	desoʔ

Their analysis is made more difficult by a pervasive process of syllable deletion. Erosion of central segments can lead to the appearance of suppletion. For example;

tree   bɔ́ɔrìŋ   kuɓɪŋ

It is possible that the -ɔ́ɔr of the singular has been deleted in the plural and a standard ku- prefix added. However, explaining suppletives in this way would require that each plural undergo an entirely idiosyncratic process of deletion and re-analysis, which is possible, but not easily demonstrable.

Even where the singular/plural pairing is not the same, the strategy of forming plurals by suppletion appears in all three languages. Suppletives for 'house' in the Temein cluster show cognacy between singulars for Tese and Keiga Jirru and plurals for Temein and Keiga Jirru (Table 7);

Table 7. Temein cluster suppletive plurals of 'house'

Language	sg.	pl.
Temein	nyáà	kwîʔ
Tese	ɓɔ́k	kuɓő̋ő̋ḍìŋ
Keiga Jirru	ɓok	kwik

Temein morphology is such that it is not always possible to be certain of an analysis of suppletion. For example, a pathway relating the Tese forms could be constructed; but it would be unique within the corpus.

Seriation of number marking strategies
From some of the more complex plurals it is possible to establish a hypothetical seriation of number marking strategies. In the Temein example given above

dikdik   wɪr   kuwɪráŋɪk

the order is likely to be;

1. aʔ
2. NI-
3. –k
4. ku-

Another complex Temein example;

bone   àmìs   kɔ́maʔ

	Singular	Plural
1.	-Is	-aʔ
2.	a-	kV-

In this case, all that remains of the root is m-. Such a pairing might well seem suppletive at first glance, but comparative evidence for affixes argues that the two forms are cognate.

4.3 Verbs: number marking

Number marking on verbs is less elaborate than nouns. Nonetheless, Temein languages seem to have a fairly comprehensive system of verbal plurality, expressing plural subjects, objects of iteratives. Stevenson gives the following example of an iterative.

Tese   cough   ɔ́ɔ́lèy (once)   ɔ́lɔ (often)

Verbs typically add ʈ/ɖV to the stem in where V often copies the last vowel of the stem. The examples show + final -TV (or infixed) in Temein;

Gloss	Unmarked	Plural
eat	láma	lámaʈà
catch (v.)	kɔmùk	kɔmɔʈɔk
fear (v.)	wɔnɔˈ	wɔʈɔnɔˈ
say	ilɛŋêì	ilɛŋɛʈêì

There is more fragmentary evidence for a partly productive –I suffix usually added after the ʈ/ɖV. There are various examples of a 'frozen' ʈ/ɖV + I suffix.

Temein	come	mɔ́ɔ́n	mɔ́ɔ́ʈài
Tese	pull	ájjɩrì	ájjɩraɖài
Keiga Jirru	take for oneself	sɛ́ŋ	sɛ́ɖei

5. Conclusions

This paper represents a preliminary look at the Temein languages, making particular use of Stevenson's material, as well as other manuscript sources. The differences between Keiga Jirru and Tese show that there *are* three languages and not two. All of the Temein languages have a similar repertoire of elements which can be applied in number marking strategies. However, all have subsequently undergone independent processes of elision and borrowing which have resulted in highly diverse outcomes.

References

Andersen, Torben M. 2000. Number inflection in Mayak (Northern Burun). In: *"Mehr als nur Worte …". Afrikanistische Beiträge zum 65. Geburtstag von Franz Rottland*. Rainer Voßen, Angelika Mietzner & Antje Meißner (eds.) 29-43. Köln, Rüdiger Köppe Verlag.

Bender, M.L. 1996. *The Nilo-Saharan languages: a comparative essay.* Munich: Lincom Europa.

Bender, M.L. 2005. *The East Sudanic languages: lexicon and phonology.* Illinois: Lionel Bender.

Blench, Roger M. 1997. The papers of Roland Stevenson. *Nilo-Saharan Newsletter, N.S.*, 1:3-16.

Blench, Roger M. 2006. *The Kadu languages and their affiliation: between Nilo-Saharan, Niger-Congo and Afro-Asiatic*. Insights into Nilo-Saharan Language, History and Culture. Al-Amin Abu-Manga, L. Gilley & A. Storch eds. 101-127. Köln: Rüdiger Köppe.

Dimmendaal, Gerrit J. 2000. Number marking and noun categorization in Nilo-Saharan languages. *Anthropological Linguistics* 42(2): 214-261.

Ehret, Christopher 2001. *A historical-comparative reconstruction of Nilo-Saharan.* Köln: Rudiger Köppe.

Greenberg Joseph H. 1981. Nilo-Saharan Moveable- k as a Stage III Article (with a Penutian Typological Parallel). *Journal of African Languages and Linguistics*, 3(2): 105-112.

Lewis, M. Paul 2009. *Ethnologue: the languages of the world*. 16th Edition. Dallas: SIL.

Storch, Anne 2005. *The noun morphology of Western Nilotic*. Köln: Rudiger Köppe.

Tucker, A. & M. Bryan 1966. *Linguistic analysis: the non-Bantu languages of North-Eastern Africa.* London: Oxford University Press.

Yip, May 2004. Phonology of the These language. *Occasional Papers in the Study of Sudanese Languages* 9: 93-117.