

Chapter 10

Linguistic “oddities” explained

Paul Newman

Indiana University

This paper investigates irregular phenomena or “oddities” in Hausa, Kanakuru, and Tera, three languages belonging to the Chadic family. These phenomena appear odd in that they seem to be at variance with the patterns and normal grammatical formation rules in these languages. The Hausa anomalies are the plurals of the words *màatáa* ‘woman’ and *’yáa* ‘daughter, small’ (*máatáa* ‘women’ and *’yáa* ‘daughters’, respectively). The Kanakuru anomaly, which also involves plurality, is the strange pair *buut* ‘he-goat’, plural *bukurin* ‘he-goats’. The anomaly in Tera relates to the form of the Linker *-t(ə)*, which normally suffixes to the stem, e.g. *luku* ‘garment’, *luk-tə-ku* ‘garments’, but in rare cases replaces the final consonant of the noun to which it is attached, e.g., *sədi* ‘snake’, *sə-tə-ku* ‘snakes’. It is shown that with a fuller and richer understanding of these languages, one can explain all of these supposed oddities as manifestations of regular morphological and phonological processes, whether viewed as deep synchronic morphophonology or as historical vestiges.

1 Introduction

The essence of descriptive fieldwork and analysis is not only collecting raw data but at the same time identifying patterns and regularities that make up the structure of a language. Of course, exceptions, irregularities, and oddities – whatever one likes to call them – invariably emerge, and in the early stages of one’s work, one has to put these aside to avoid going off on a tangent and being distracted from one’s (hopefully coherent) research plan. Nevertheless, abnormal examples should not be neglected forever, as often happens. With well-described languages such as Hausa, the oddities become so familiar and commonplace that one forgets that they are abnormal, and one fails to see them as examples needing attention.



Paul Newman. 2024. Linguistic “oddities” explained. In Christopher R. Green & Samson Lotven (eds.), *The Ghanaian linguistics nexus*, 201–211. Berlin: Language Science Press. DOI: [10.5281/zenodo.11091837](https://doi.org/10.5281/zenodo.11091837)

At some point, as researchers get deeper into a language and acquire a greater understanding of it, they should relish the exciting challenge of trying to figure out why these oddities exist, where they fit in, and what they add to our understanding of the language being studied.

A fundamental question to address is whether a seeming oddity is truly an unsystematic orphan that tells us nothing about the structure of the language, whether it is an unwelcome counterexample that undermines or requires reformulation of some rules or generalities, or whether, in fact, the odd surface form can be shown to derive by application of established rules and thus reinforce our confidence in their validity. In this latter case, the seeming exception not only demonstrates the efficacy of a rule or rules but can lead to further discovery and understanding of related phenomena. In this modest contribution, I discuss examples drawn from three different Chadic languages – Hausa (iso 639-3: hau), Kanakuru (iso 639-3: kna), and Tera (iso 639-3: ttr) – showing how seemingly odd phenomena result from and fit naturally into the structure and mechanisms of the individual languages.

2 Hausa plurals

Hausa is well known for its incredible complexity in the area of noun pluralization. It has numerous and varied ways of forming noun plurals (some 40 different formatives being evidenced) variously involving suffixation, suffixal reduplication, infixation, internal reduplication, gemination, tonal alternation, and combinations thereof (Newman 2000). The processes typically involve dropping the final vowel and tones of the singular, and sometimes the language's *-iyaa* and *-uwaa* feminine endings as well, thereby leaving a toneless, consonant-final base for the plural to be built upon. Several examples are given in Table 1.¹

In two special cases, there are plurals that stand out as strange even by Hausa standards. One is *màatáa* 'woman, wife', pl. *máatáa*, the forms being segmentally identical but tonally divergent. The other is *'yáa* 'daughter, small female', pl. *'yáa*, the forms being both segmentally and tonally identical. The unanswered question – often not even asked – is why should these peculiar plural forms exist given the multiplicity of regular plural formatives available in the language? As is often the case, once one looks at aberrations carefully and asks oneself what could account for their weird shapes, an explanation emerges from the abyss.

¹In the transcription system employed here, long vowels are indicated by double letters. Tone is marked only on the first of the two vowels in these instances, with the understanding that the tone extends over the entire syllable. <'y> indicates a glottalized palatal semivowel.

Table 1: Examples of plural formatives

Singular	Gloss	Plural	Base
ràagóo	‘ram’	ràagúnàa	raag-
gùdúmàa	‘mallet’	gùdúmóomii	gudum-
gùlbii	‘stream’	gùlàabée	gulb-
túdùu	‘hill’	tùddái	tud-
sàlkáa	‘hide water bottle’	sálèekánii	salk-
jìmináa	‘ostrich’	jìminúu	jimin-
tsúmángiyáa	‘cane stick’	tsùmàngúu	tsumang-
gàbàarúwáa	‘acacia tree’	gàbàarii	gabaar-

The *màatáa/máatáa* pair is aberrant in that although Hausa does sometimes employ tone change for grammatical purposes, the change normally takes place at the end of the word and is usually accompanied by some other change as well, e.g. *ídò* ‘eye’, but *ídó* ‘in the eye’, and *bàakú* ‘mouth’, but *bákà* ‘in/on the mouth’. The pair is also strange since we expect pluralization to involve some segmental addition to, or modification in, the word, whether a fully specified suffix, suffixal partial reduplication, or at least replacement of the final vowel.

The key to understanding the *màatáa/máatáa* exception lies in the realization that the phonetically identical *aa*’s at the end of the words are morphologically not the same. There are two different *aa*’s! The *aa* at the end of the singular is an integral part of the lexical representation: it is simply the final vowel of the word. It is not preserved in the plural, as it appears, but rather is dropped in creating a toneless, final-vowel-less base in accordance with the general pattern, i.e., *màatáa*, base *maat-*. The *-aa* in the plural form *máatáa* is instead a plural suffix that is found in other basic words such as *míjii* (< *mázii) ‘man, husband’ (base *maz-*), pl. *mázáa*, *kúusùu* ‘rat’ (base *kuus-*), pl. *kúusáa*, and [WH]² *kàrèè* ‘cornstalk’ (base *kar-*), pl. *kàráa*, with the last of these having been reinterpreted in Standard Hausa as a singular with the regular reduplicative plural *kàràarée*. As seen in these examples, this plural suffix has an associated H(igh) tone melody that extends leftwards across the entire plural form. The reason why the plural *máatáa* has all H tone is not because the L(ow) tone of the *àa* in the first syllable

²The term “Standard Hausa” used here refers to the variety of Hausa found in the greater Kano area. This is the variant typically used in dictionaries (e.g., Newman & Ma Newman 2020), newspapers, and other media. WH (= (North)-Western Hausa) is an inexact term for the Hausa dialects spoken in Sokoto and elsewhere in that general geographical region.

was raised to H in some ad hoc fashion but because it had added what I refer to as a “tone-integrating” suffix (Newman 1986), namely a suffix with an associated tone melody that spreads from right to left and overrides the underlying lexical tones. In sum, the *màatáa/máatáa* example is a seeming aberration, but, in fact, it turns out to be an ordinary, perfectly regular singular/plural pair.

Viewed historically, the story is even more interesting. From a functional point of view, the vowel suffix *-aa* would seem to be a weak, inadequately distinct plural marker as compared, for example, to other overtly well-marked plural suffixes such as *-unaa* (e.g., *dáakúnàa* ‘rooms’), *-annii* (e.g., *wàtànńii* ‘months’), or *-anii* (e.g., *fàrèetánńii* ‘fingernails’). The bare vowel *-aa* as a plural marker is particularly poor because Hausa has innumerable *aa*-final singular nouns with all H tone, both masculine and feminine, as seen in the examples in Table 2. A final *-aa* suffix is perhaps better than a simple tone change, which is what we originally thought was the plural formative, but not by much.

Table 2: Examples *aa*-final singular nouns

Singular	Gloss	Plural
súunáa <i>m.</i>	‘name’	súnàayée
ràanáa <i>f.</i>	‘sun, day’	ràanàikúu
bísáa <i>f.</i>	‘pack animal’	bísàashée
bóokáa <i>m.</i>	‘herbalist’	bóokàayée
ḡúrmáa <i>f.</i>	‘rat trap’	ḡúràamée
kwálláa <i>f.</i>	‘large basin’	kwállàayée
gúzúmáa <i>f.</i>	‘old cow’	gúzàamée
túkúrwáa <i>f.</i>	‘bamboo pole’	túkúrwóoyii

As it turns out, there is a simple historical explanation here involving a natural phonological change that had significant morphological consequences. The original suffix was not **-aa*, as appears synchronically, but **-an*, with a final /n/, thereby giving singular/plural pairs such as *màatáa/*máatán*. The loss of the /n/ was due to an early historical change in Hausa, discovered by Schuh (1976), whereby **N > Ø / __ #*, i.e., all word-final nasal consonants, both **n* and **m*, were deleted. This regular and seemingly exceptionless sound change is well documented and well established. What we have failed to see until now is its relevance to the analysis of *aa*-final plurals of the *màatáa/máatáa*, *míjii/mázáa* type.

The other Hausa oddity to be discussed, *yáa* ‘daughter, small (fem.)’, pl. *yáa*, is aberrant in that the singular and the plural are identical in form.³ Although the two *yáa* words are phonologically identical in citation form, the grammatical difference between them shows up on the surface by means of gender/number agreement rules and their form with a suffixal genitive linker attached, i.e., *yár* vs. *yán*,⁴ e.g., *yá-r wúkáa tá ázùrfáa* ‘a small silver dagger’ (lit. ‘small-of (fem.) knife of (fem.) silver’), cf. *yá-n wúkàakée ná ázùrfáa* ‘small silver daggers’ (lit. ‘small-of (pl.) knives of (pl.) silver’).

The simple and surprising explanation for the unexpected phonological identity of these singular and plural forms is that this pair actually manifests the same processes described in the *màatáa/máatáa* pair, although one cannot see it when one only looks at current-day Standard Hausa. The explanation is hidden synchronically because of a lexically restricted historical sound change that applied in Standard Hausa, but not in northwestern [WH] dialects. The historically original form of the singular word for ‘daughter, small’ was *ḍiyáa*, with L-H tone, a form still found in WH. As with other basic nouns, including *màatáa/máatáa* ‘woman, wife’ and *míjii/mázáa* ‘man, husband’, it formed its plural by means of the *-aa* suffix with an associated H tone melody. The result was, thereby, *ḍíyáa* (which, we now know was historically derived from **ḍíyán*), a form that was tonally distinct from the singular, its plural being H-H whereas the singular was L-H.

The historical change at play in this case, a seemingly ad hoc phonological change originally limited to one lexeme(!), involves the fusion of the CVC sequence **ḍiy* into a single palatalized stop **ḍy*, which subsequently was altered further into the glottalized palatal semivowel /*y̥*/, with this new /*y̥*/ being a lexically restricted but high frequency phoneme in the language. Note that when the initial **ḍiy* of the disyllabic noun **ḍiyaa* changed into **ḍy* and thence /*y̥*/, what in origin was a disyllabic noun became monosyllabic. The tone of the resulting monosyllabic plural form *yáa* remained H, i.e., **ḍíyáa* H-H > *yáa* H. The

³When functioning as a noun with the literal meaning ‘child,’ rather than as a diminutive or compound formative, the plural normally takes the reduplicative shape *yáa’yáa* rather than *yáa*. This reduplicated form represents a secondary development, motivated by the need to avoid the identity of the feminine singular and plural forms. For our discussion, we shall focus on the original non-reduplicated variant.

⁴The feminine linked form *yár* along with its masculine counterpart *dán*, literally ‘son of’, are commonly used in compound formation, both sharing *yán* as their plural: e.g., *yár-hàrtùm* ‘plain, long-sleeve caftan’, pl. *yán-hàrtùm* (< *hàrtùm* ‘Khartoum’), *yár-wàasáa/dán-wàasáa* ‘actress/actor’, pl. *yán-wàasáa* (< *wàasáa* ‘playing’), *yár-kásáa/dán-kásáa* ‘citizen (fem./masc.)’, pl. *yán-kásáa* (< *kásáa* ‘land, country’), and *dán-kúnné* ‘earring’, pl. *yán-kúnné* (< *kúnné* ‘in/on the ear’). A study of this rich formation goes beyond the scope of this paper.

underlying tones of the singular, on the other hand, underwent an adjustment. Hausa does not have rising tone in its tonal inventory, and so when presented with LH on a single syllable, as sometimes appears in intermediate structure, the tone simplifies to H. This can be seen in such examples as *dòomín* ‘for (the sake of)’, cf. the apocopated form *dón*, and *nàawá* ‘mine’, with the WH dialectal variant *náu* (< /náw/). In Standard Hausa, the originally L-H singular noun **ḍiyáa* – which before monophthongization was tonally distinct from the plural – became H via the sequence **ḍiyáa* > **ḍ̣y`áa* > *y`áa* > *yáa*, ultimately ending up being phonetically identical to the singular.

In short, although not evident at first glance, the explanation for the odd *y`áa* sg./*yáa* pl. pair turns out to be simple and based on the application of morphological and historical phonological rules, all of which are straightforward and perfectly natural.

3 A Kanakuru plural

Kanakuru, as described in Newman (1974), is a West Chadic language, related somewhat distantly to Hausa. Like Hausa, it typically forms noun plurals by use of various suffixes, some reminiscent of, albeit not identical to, plural formatives in Hausa, e.g., *yim* ‘name’, pl. *yimngin*; *shal* ‘monkey’, pl. *shalin*; and *maawo* ‘stranger’, pl. *maawuyan*.⁵ By contrast, the plural for the word *but* ‘he-goat’ is *bukurin*. Not only does this plural form look strange to me – the infixal /k/ is particularly curious – but my native speaker assistant was also puzzled by it, saying: “Although I told you yesterday that the plural was *bukurin*, it is not what I say. That is what my grandfather told me, so that is what I told you, but I personally say *buutingin*”. So, how do we explain this odd *bukurin* plural that doesn’t appear to make any sense?

The first step in unraveling the mystery of the relationship between *but* and *bukurin* is the correction of a transcription error. After all, facts count, and little mistakes can throw us off. The singular, which I had transcribed as *but* when first elicited, is hardly a word that would seem to present great phonological difficulty for a half-competent field worker. But, I goofed! The correct representation is *buut* with a long vowel. Hausa, the Chadic language I knew best and which was serving as the contact language between my Kanakuru fieldwork assistant and myself, has long vowels in open syllables, but it does not allow them in closed syllables. A combination of Hausa influence, plus the fact that vowel

⁵Tone is omitted in the Kanakuru examples since the matters at issue are concerned solely with consonant mutation and alternations.

length in closed syllables in Kanakuru is not terribly common, plus the fact that my close attention in transcription at that stage tended to be on getting tones right, I simply missed the long /uu/ in *buut*.

This minor error is a critical key in understanding what is going on here because, as later discovered, although Kanakuru does have long vowels in closed syllables, they almost always derive from CVCVC words where the middle C has been lost. Assuming *buut* to have come from a $C_1VC_2VC_3$ word, and paying attention to the shape of the corresponding plural form, it follows that the lost C_2 must have been /k/. Given the new pairing **bukut/bukurin* (significantly, the initial *u* in *bukurin* being short, rather than long, as in *buut*), the current forms of the singular and the plural lend themselves to a straightforward derivation. The loss of the medial /k/ in *buut* was due to the operation of two rules. First, there is a general (historical? / synchronic?) lenition rule affecting underlying stops (p / t / k) in intervocalic position whereby $*p \rightarrow w$, $*t \rightarrow r$, and $*k \rightarrow x$ (a voiceless velar fricative). Second, $x \rightarrow \emptyset$ between identical vowels, with the two vowels coalescing into a single long vowel, e.g. $*bukut \rightarrow buxut \rightarrow buut$, cf. $*dikil \rightarrow dixil \rightarrow diil$ ‘hoe’, pl. *dikilin*.

The current-day plural form *bukurin* reflects the addition to the singular of a common plural suffix *-in* (as seen in such examples as *gom/gomin* ‘baboon(s)’) plus the operation of the following morphological and phonological rules: the appearance of /r/, instead of the final /t/ of the singular, is due to the general lenition rule described above. But, having just appealed to the lenition rule, how do we account for the presence of the non-weakened /k/ in the plural?

As is widespread, but not ubiquitous, in Chadic, plural suffixes are often accompanied by gemination of an internal consonant. Assuming that this was also the case in Kanakuru, the medial consonant in a word such as **bukut* would have been geminated in the plural, i.e., **bukkurin* (cf. via the same process in the example *liwe* (< **lipe*) ‘calabash’, pl. *lipen*, which we can assume came from **lippen* with gemination of the medial /p/). The unsupported intervocalic /k/ in the singular would have undergone lenition, but the strong geminate /kk/ would not have. Subsequently, Kanakuru lost gemination entirely whereby $*/kk/ > /k/$. This change did not, however, feed the lenition processes, and so the now intervocalic stop stayed as such. Applying various morphophonological processes, all of which are regular and quite normal, one ends up with *bukurin* as the plural counterpart of *buut*. Kanakuru, of course, manifests its share of unusual phenomena, e.g., the counter-universal presence of the palatal fricative *sh* without a corresponding *s*, and the apparent hardening of word-final **r* to /t/; however, as we have pointed out, the seemingly odd plural pairing of *buut/bukurin* is not one of them.

4 The Tera linker

Tera, as discussed in Newman (1964), belongs to the Biu-Mandara (= Central) branch of the Chadic family and is even more distantly related to Hausa and Kanakuru than Hausa and Kanakuru are to each other. The problematic oddity here concerns the language's linker. When a Tera noun adds a suffix, such as the pluralizer *-ku* or the definite article *-aŋ*, or is modified in some way, e.g., by means of a postnominal possessive (noun or pronoun), the stem obligatorily adds a linker. With some nouns, the linker consists of phonological fronting of the final vowel of the noun (a form of the linker that I refer to as "Y"). This is seen in comparing *nəcaka* 'weaver' and *nəcake-ku* 'weavers', *runɡu* 'stranger, guest' and *runɡi-ku* 'strangers, guests', *mbola* 'dove' and *mbole-aŋ* (pronounced [mboljaŋ]) 'the dove', and *təta* 'roughing stone' and *təte bərem* 'our roughing stone'.

With other nouns, the linker is a suffix *-t(ə)*, with the *t* appearing variously as [t], [d], or [nd], depending upon the preceding abutting consonant, and the schwa being automatically deleted when juxtaposed to another vowel.⁶ This suffix is added to the stem-final consonant, with the lexical final vowel, if any, being dropped: cf. *luku* 'garment', *luk-tə-ku* 'garments', and *luk-t-aŋ* 'the garment', as well as *waxi* 'rudeness' and *wax-t-aŋ* 'the rudeness' and *ʔugu* 'knife' and *ʔug-də baŋa* 'my knife'. Nouns with /d/ as the final consonant, on the other hand, behave differently. Here, one finds /t/ replacing the lexical *d* rather than being added to it, as in *sədi* 'snake' vs. *sə-t-aŋ* 'the snake', *vidi* 'monkey' vs. *vi-tə-ku* 'monkeys', and *xeda* 'mat' vs. *xe-tə banda* 'their mat'. Consonants in Tera are normally quite stable, so the question is: what is going on here? Why does the underlying *d* disappear?

Again, we find that the explanation relates to the role played by gemination and degemination. Although consonant clusters as such are rare in Chadic – and Tera is typical is not allowing them – abutting consonants across a syllable boundary are well attested. There is a large range of different C.C's abutting with one another. Examples of words with such sequences are shown in Table 3.

On the other hand, the abutting sequence *d.t*, which should be the output when the linker is added to a *d*-final stem, does not occur. I propose that when such a sequence is created morphologically, the lexical stem-final *d* is not dropped or replaced, but rather assimilates to the following *t*, thereby producing a geminate /tt/. However, with few exceptions, Tera, like Kanakuru, does not have geminates, and thus the geminates occurring in intermediate structure simplify into single

⁶Tera, like most languages in the Biu-Mandara branch of the family, has lost grammatical gender, a reconstructable feature of Proto-Chadic. The two main forms of the linker are undoubtedly historical vestiges of a former masculine/feminine gender distinction.

Table 3: Consonant contact across a syllable boundary

nyax.ɬi	‘young man’
jax.ɓa	‘termite’
lom.ku	‘bats’
wan.xa	‘maiden’
calaŋ.ku	‘cheeks’
dəl.gwàŋ	‘drummer’
kwar.cax	‘hill’
ŋgar.kɪ	‘egg’
pər.gus	‘rabbit’
yur.vu	‘fish’
ɓuɓul.ku	‘hips’
loyos.ku	‘leaves’
rap.tiki	‘friendship’
kozop.ku	‘clouds’

consonants, i.e., */tt/ → *t*. The shared degemination in Tera and Kanakuru is a wonderful example of independent parallel drift.⁷ With the words *vidi* ‘monkey’, and *sədi* ‘snake’, for example, we get the following regular derivations: *vidtəku → vittəku → *vitəku* ‘monkeys’ and *sədtəŋ → səttəŋ → *sətəŋ* ‘the snake’. Thus, what might appear to be a totally aberrant replacement of *d* by *t* in the linked form can be seen as regular suffixation plus the application of totally natural rules of assimilation, gemination, and degemination.

The above analysis, in turn, leads to a possible explanation for a problem that previously didn’t stand out. In addition to the “Y” and *-t(ə)* linkers, some nouns simply have the linker *-ə*, which, as expected, is deleted when followed by a suffix beginning with a vowel. This is the standard form of the linker for nouns with stem-final /t/. This can be seen in comparing *shipit* ‘a load, goods’ and *shipit-ə-ku* ‘loads, goods’, *ɣiɣit* ‘tsetse fly’ and *ɣiɣit-ə-ku* ‘tsetse flies’, *cicet* ‘broom’ and *cicet-ə ɓareɓ* ‘our broom’, *pəjit* ‘ashes’ and *pəjit-aŋ* ‘the ashes’, and *xəxet* ‘wind’ and *xəxet-aŋ* ‘the wind’. However, maybe what we really have here underlyingly is the common *-t(ə)* linker. That is, what appears on the surface as bare *-ə* is probably the result of the processes involving assimilatory gemination followed by degemination that we already observed, i.e., *t-tə → ttə → *tə*, where the single

⁷Insight into the role and development of gemination in Chadic, specifically in West Chadic, is found in an excellent paper by Schuh (2001).

t morphologically comprises both the *t* of the stem and the *t* of the linker. The derivation for *cicetaku* ‘brooms,’ for example, would thus be **cicet* + *tə* + *ku* (noun + Linker + plural) → *cicettaku* → *cicetaku*, and the derivation for *pəjitaŋ* ‘the ashes’ would be **pəjit* + *tə* + *aŋ* (noun + Linker + definite article) → *pəjittaŋ* → *pəjitaŋ*. Of course, this analysis needs to be verified; however, to me, it is a more likely solution than the alternative of postulating bare *-ə* as a distinct linker type, especially since *-ə* is a weak vowel that is often elided or deleted.

5 Conclusion

In basic field research, exceptions and seeming lexical and morphological oddities constitute problems that lie beyond the scope of early data-collection work and often challenge the competence and know-how of the investigator. What I have shown in this paper is that with curiosity and intellectual courage, and with deeper knowledge to draw on, one can in fact explain troubling idiosyncrasies and, moreover, that such analyses can lead to a fuller and richer understanding of the workings of the language in question. The key is truly to get to know one’s research language (and related languages) well and be willing to go beyond simple observational “what?” and ask the often more difficult question of “why?”.

Abbreviations

*	reconstructed form
f.	feminine grammatical gender
H	High tone
L	Low tone
m.	masculine grammatical gender
pl.	plural
WH	(North)-Western Hausa

References

- Newman, Paul. 1964. A word list of Tera. *Journal of West African Languages* 1. 33–50.
- Newman, Paul. 1974. *The Kanakuru language*. Leeds: Institute of Modern English Language Studies, University of Leeds & West African Linguistic Society.
- Newman, Paul. 1986. Tone and affixation in Hausa. *Studies in African Linguistics* 17. 249–267.

- Newman, Paul. 2000. *The Hausa language: An encyclopedic reference grammar*. New Haven: Yale University Press.
- Newman, Paul & Roxana Ma Newman. 2020. *Hausa dictionary (Hausa-English/English-Hausa) / Kamusun Hausa (Hausa-Ingilishi/Ingilishi-Hausa)*. [2nd printing with minor emendations, Oxford: African Books Collective, 2022]. Kano: Bayero University Press.
- Schuh, Russell G. 1976. The history of Hausa nasals. In Larry M. Hyman, Leon C. Jacobson & Russell G. Schuh (eds.), *Papers in African linguistics in honor of Wm. E. Welmers*, 221–232. Los Angeles: Department of Linguistics, UCLA.
- Schuh, Russell G. 2001. *Sources of gemination and gemination as a morpheme in Bole*. Paper presented at the 32nd Annual Conference on African Linguistics in Berkeley, CA.

