

KILBA EQUATIONAL SENTENCES*

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Kilba, a Chadic language of Gongola State, Nigeria, has a number of enclitic particles which one can reasonably argue function as copulas in equational sentences. Li and Thompson [1977] have described a widespread phenomenon in language history whereby anaphoric elements become copulas. The copular particles of Kilba present a particularly interesting case of this phenomenon in that, first, proximal/distal distinctions of the demonstratives from which the copulas derive have shifted to tense distinctions in equational sentences, and second, the original pronominal and the innovative copular functions are not clearly separable, creating functional ambiguity.

1. Introduction: Chadic copulas

Li and Thompson [1977] show for a variety of languages how non-verbal copulas have developed from personal pronouns or demonstratives. The general path of development is as follows:

Noun Phrase_i Pronoun_i Predicate > Noun Phrase Copula Predicate
(topic) (subject) (subject)

For example, in colloquial Hebrew the personal pronoun *hu* 'he' or the demon-

*I conducted my initial research on Kilba in Los Angeles with Mallam Usman Isyaku, a man 22 years of age from Hong, Gongola State, Nigeria and a student at Columbia College in Hollywood. After we had worked together for about 6 months, Mallam Usman left Los Angeles, and I was unable to complete the present paper because of a few remaining unanswered questions. During 1982-83, while I was a Visiting Professor in the Department of Nigerian and African Languages at Ahmadu Bello University, Zaria, I was fortunate to be able to fill in gaps in the data with the help of Mallam Hamman Wagwakwa, an ABU cafeteria worker about 30 years old and also a native of Hong. Work in Los Angeles was supported by a Research Grant from the UCLA Academic Senate. Field work in Nigeria was supported by a grant from the Wenner-Gren Foundation for Anthropological Research. My thanks to Sandy Thompson and Paul Newman for comments on an earlier version of this paper. Since they did not convince me of the aptness of some of their suggestions, they are to blame for my not incorporating those particular suggestions!

strative *ze* 'this' are virtually obligatory in equational sentences with nominal subjects, such as *David hu ha-ganav* (David "he" the-thief) 'David is the thief', and they can even be used in sentences such as *ata hu ha-ganav* (you [m.s.] "he" the-thief) 'you are the thief', where *hu* clearly cannot be anaphoric [Li and Thompson 1977:427-431].

In Chadic languages, copulas of any kind are rather rare. Typically, equational sentences simply juxtapose a subject (noun or pronoun) with a predicate. A few Chadic languages, however, do have morphemes which can be identified as copulas and which have probably developed in a way similar to that outlined by Li and Thompson. A well known and well documented case is that of Hausa (see especially Parsons [1963], Schachter [1966] and Rufa'i [1977:306-311]). Hausa uses one of a pair of morphemes, *ne* and *ce*, to form equational sentences as follows:

- | | | |
|--------|------------------------------|---------------------|
| (1) a. | <i>Audu manomi ne</i> | 'Audu is a farmer' |
| | b. <i>Amina sarauniya ce</i> | 'Amina was a queen' |
| | c. <i>tunkiya ce</i> | 'it's a sheep' |
| | d. <i>tumaki ne</i> | 'they are sheep' |

The copula agrees in gender and number with the subject, *ne* for masculine singular (1a) and any plural (1d), *ce* for feminine singular (1b,c). There is some fluctuation in agreement where grammatical gender of subject and predicate differ (see Schachter [1966] and Rufa'i [1977] for discussion). In neutral affirmative sentences, *ne/ce* always follow the predicate. The subject need not be overtly expressed (1c,d), in which case *ne/ce* may be translated 'it is...', 'they are...'.¹

I am unaware of any previous account of Hausa *ne/ce* which explicitly links these morphemes with the Hausa demonstrative or pronominal system, but such a link is obvious, at least from a historical point of view. For example, the *n-* of *ne* corresponds to the masculine singular and the plural marker of previous reference, whereas the *c-* of *ce* corresponds to feminine *-ř* in the same function,¹ e.g. *manomi-n* 'the farmer', *tumaki-n*

¹In the dialect illustrated here, essentially that of Kano, syllable

'the sheep (pl.)', sarauniya-ř 'the queen'.

Despite this historical link, however, ne/ce have been entirely grammaticalized as copulas and have no deictic or anaphoric functions. They do raise some questions as to how they may have developed following the paths outlined by Li and Thompson. Perhaps the most vexatious of these is why ne/ce always follow the predicate² in a language where constituent order is rigidly Subject-Predicate in all sentence types. If ne/ce were the original subjects as in the Li and Thompson schema, they should precede the predicate. I have no ready answer for this.

Another Chadic language which has copulas derived from the pronominal and demonstrative systems is Kilba.³ Unlike Hausa, however, where ne/ce are entirely grammaticalized as copulas and their historical link with demonstratives is recognizable only through internal (or comparative) reconstruction, the Kilba copulas still share strong links with the pronominal and demonstrative system.

In addition to adding yet a further case of copula development to those Li and Thompson discuss, the Kilba system has additional points of interest. Two of these will emerge below. The first is the fact that in shifting demonstratives from deictic to copular function, Kilba has exploited the proximal/distal deictic distinction to create a tense distinction for its copulas.

final t has changed to ř in a well-known set of sound changes [Klingenberg 1927/28]. The t is still heard in some western dialects. The change of t → c / __i,e is a regular morphophonemic change in Hausa accounting for ce rather than *te. For the copula, some western dialects use na and ta rather than ne and ce. In fact, the set of formatives n (m.sg.), ř (f.sg.), n (pl.) in the determiner and pronominal system is an ancient pattern reconstructable for proto-Afroasiatic [Greenberg 1960].

²As Paul Newman [p.c.] reminds me, the Hausa copula does not always follow the predicate, e.g. shi ne sarki (he COP chief) 'he is the chief'. However, such sentences usually involve subject focus. Since another function of the Hausa copula is to form clefts, such sentences could be viewed as having a clefted subject with no copula per se.

³Kilba belongs to the Central or Biu-Mandara branch of Chadic [Newman 1977]. Hausa, a West Chadic language, and Kilba are therefore genetically distant from each other and have been in contact in only relatively recent times through the spread of Hausa as a lingua franca. The copulas of these two languages have clearly originated and developed independently.

Second, Kilba copulas have developed from subject pronouns but have not pre-empted the position of true subject pronouns (in this case, post-predicate). This creates a transitional sentence type where the function of the demonstrative or pronoun is ambiguous between "subject pronoun" and "copula".

2. Kilba Personal Pronouns and Demonstratives

In this section I present personal pronoun and demonstrative paradigms for reference in the discussion in following sections. There are two personal pronoun paradigms of interest:

(2) a. Independent pronouns	b. Pronominal enclitics
1 sg. nà'yà	yá
2 sg. nàkà/nàkè	ká/ké
3 sg. nàcà	cá
we (2) nàmà ⁴	má
1 p.ex. nà'yà	'yá
1 p.in. nàmèn	mèn
2 pl. nàhì	hí
3 pl. nàndà	ndá

The full range of environments for these pronouns need not concern us. Suffice it to say that the Independent Pronouns are used where there is not a close syntactic bond with neighboring constituents, whereas the Pronominal Enclitics are used in a number of bound environments including suffixed subjects of equational sentences. The alternates for 2nd person singular are prepausal and medial realizations respectively.⁵

Kilba has two sets of demonstratives, a complex set (3a), which may be used pronominally or adjectivally, and a simple set (3b), used only adjectivally.

⁴The pronouns labelled 'we (2)' specifically mean 'you (sg.) and I'. I have avoided the label "1 dual", which would imply the possibility that these pronouns could also mean 'he and I'. Some researchers have referred to these forms as "first person singular inclusive", making the singular set perfectly parallel to the plural set.

⁵This alternation of some, but not all, word final vowels is a common feature of languages of the Biu-Mandara A group, to which Kilba belongs.

al sentences. Assuming the language universal principle that subjects in such sentences cannot be logically more inclusive than their predicates, the order of elements must be the following:

Nominal Subject - Predicate (4)

Predicate - Pronominal Subject (5)

The ungrammatical starred sentences in (4) establish that nominal subjects must precede the predicate. In the case of sentences with pronominal subjects, there is some fluctuation. The order **yá ndèr zwà* in place of (5a), with the enclitic pronoun before the predicate (and corresponding orderings for (5b-f)), is entirely ungrammatical. Of the two speakers with whom I worked, Usman also did not like sentences such as those in (6), but Hamman accepted them. Here, an independent pronoun appears in sentence initial position as subject:

- (6) a. (?) *nàyà ndèr zwà* 'I am a farmer'
 b. (?) *nàyà tál* 'I am the chief'

Both speakers, however, accepted sentences such as those in (6'), with a pre-predicate independent pronoun and a post-predicate pronominal enclitic:

- (6') a. *nàyà ndèr zwà yá* 'I am a farmer'
 b. *nàyà tál yá* 'I am the chief'

I will return to a discussion of sentences such as those in (6) and (6') in section 3.3. Suffice it to say here that the speakers with whom I worked used sentences such as those in (5) as "neutral" equational sentences with pronominal subjects. Whether or not those in (6) and (6') can be interpreted as "neutral" will have to remain an unanswered question, but the development of such sentence types must be understood in the wider context of Kilba equational sentences (see especially section 4).

Turning to another feature of the sentences in (4) and (5), we can say that although they are mostly translated by English present tense, they are essentially unmarked for time, this being determined by context. This is evident from (5f) where the second clause of the sentence indicates that the first clause must refer to past time. Lack of tense marking is typical for

verbless sentences in Chadic languages, but as we shall see in the next section, Kilba can, in fact, mark tense in equational sentences.

3.2. Sentences with "empty" subjects. We may refer to the special type of equational sentences with an empty subject as "identificational sentences". Such sentences might be used in answer to questions such as 'who's that?' or 'what's a pangolin?' or where the real world situation makes expression of a subject unnecessary, e.g. 'it's a snake!'. Many European languages which do not allow subjectless sentences utilize some sort of empty subject, e.g. English 'it' ('it's John') or French 'ce' ('c'est Jean'). Chadic languages typically state the noun which would be the predicate without further marking.⁶ While Kilba can do this as well, i.e. *nàyà* 'me' or *ngàmán* (person's name) would be appropriate answers to the question 'who is it?', translations of sentences like 'it's ...' in English or ... *ne/ce* in Hausa typically use one of the "demonstrative enclitics" listed in (7):

(7) Demonstrative enclitics

ná

ndá

ngá

The resemblance of these enclitics to the "simple" demonstratives in (3b) is obvious, but they must be considered as distinct in modern Kilba, both because they differ in tone and because of their different syntactic function: while the simple demonstratives are modifiers of the head of a noun phrase, the demonstrative enclitics are higher level constituents of a full sentence.

Of particular interest is the meaning differences these demonstrative enclitics bring about and the relationship of meanings to the meanings of the

⁶This is possible in languages such as English or French as well of course, e.g. in answer to the question 'who's that?' one can simply answer 'John'. However, this would not be regarded as a full sentence in English, whereas in many Chadic languages it must be considered so since these languages have no further morphemes to "fill out" the sentence. An exception to this general statement about Chadic languages is Hausa, which uses *ne/ce* (cf. section 1) to "complete" the identificational function of the sentence, e.g. Q: *wane ne wannan?* 'who's that?', A: *Audu ne* 'it's Audu'.

corresponding demonstratives in (3).

- (8) a. kètèŋ ná
 'it's a sheep', e.g. pointing to a visible sheep in answer to a question 'what's that?'
- b. kètèŋ ndá
 'it was a sheep', e.g. referring to damage done by an animal not present
- c. kètèŋ ngá
 'it's a sheep', e.g. referring to the sound of an animal seen but not heard
- (9) a. ndèr zwà ná àmá ngyà-r-tè cá
 'he was a farmer, but he has quit' (referring to a visible person)
- b. ndèr zwà ndá àmá ngyà-r-tè cá
 'he was a farmer but he has quit' (referring to a person not visible)
- c. ndèr zwà ngá àmá ngyà-r-tè cá
 'he was a farmer, but he has quit' (referring to a person possibly visible but not within hearing distance)

Usman worked out the following examples as a direct result of our being interrupted by a phone call from a mutual friend during one of our interview sessions.

- (10) a. àlí ná
 'it's Ali', e.g. said referring to someone to whom one is talking on the phone
- b. àlí ndá
 'it was Ali', e.g. said after speaking to someone on the phone and hanging up
- c. àlí ngá
 'it's Ali', e.g. said by a third person referring to someone at the other end of a telephone conversation taking place

The demonstrative enclitics may be used with pronominal predicates referring to non-third persons:

- (11) a. nàyà ná 'it's me'
- b. nàyà ndá 'it was me'

- c. nàyà ngá 'it was me', i.e. in answer to a question
'who did that?'
- (12) a. nàkè ná 'it's you'
b. nàkè ndá 'it was you'
c. nàkè ngá 'it was you'

The consistent response of both Usman and Hamman to the difference between sentences of the type ...ná and those of the type ...ndá or ...ngá was that the former were "present tense" and the latter were "past tense". I should emphasize that although most of the interviewing was through Hausa, both men knew English and independently volunteered this "tense" distinction using English, Hausa having no way to mark tense in non-verbal sentences. Neither speaker, however, was able to formulate a consistent meaning distinction between ...ndá and ...ngá .

While both speakers suggested a tense distinction, the translations of (8-10) show that the differences in meaning are not limited to this dimension. Distance and visibility of referent also play a role. Thus, in (9), the first clause in all three examples must be translated as past tense, given the second clause. The (a) and (c) sentences of both (8) and (10) are translated by present tense with the difference in meaning associated with visibility/distance. On the other hand, in (11) and (12), where the predicates are first and second person and hence would typically be both near and visible, the (b) and (c) examples are translated as past tense, associating the predicate with an event in the past rather than the location of the referent. Indeed in the sentences with third person referents (8-10), the suggested distinction between ...ngá and the others was spatial rather than temporal. Note also the following:

- (13) Q: wà ngá? 'who is it?'
A: nàyà ná 'it's me'

In the Q the speaker uses ngá to refer to a person he cannot see, e.g. someone greeting from outside a compound. In the A, the speaker uses ná , the present tense/near form, since obviously the referent (himself) is near, visible, and speaking in the present.

A spatial function for the demonstrative enclitics is not surprising, given their obvious relation to the demonstratives in (3), whose primary dimension is spatial or referential. The interesting feature of Kilba is that in equational sentences the demonstrative enclitics have shifted to what both speakers I worked with seemed to feel is primarily a temporal dimension. The pivot for this shift in focus is undoubtedly the referential use of demonstratives in sentences such as 'this man is a Kilba' vs. 'that man was a Kilba' where 'this' implies not only spatial but temporal nearness and 'that' implies primarily temporal remoteness. Here we would not say that the temporal function is primary for the demonstratives, but it is easy to see how the temporal implications could become the semantic focus once the adjectival and pronominal functions of the demonstrative were lost.

3.3. Demonstrative enclitics in sentences with "full" subjects. This last statement raises an important question: can we really say that the demonstrative enclitics do not have adjectival or pronominal functions? They clearly do not have adjectival function. Sentences such as those in (10), where the referent is a proper name or those in (11) and (12), where it is a personal pronoun, suffice to demonstrate this.

It is not so easy to demonstrate conclusively that the demonstrative enclitics are not subject pronouns. I will say more about this in the final section, but here I will present some arguments against interpreting them as subjects. There is a type of sentence where the demonstrative enclitics are almost certainly not pronominal subjects, viz. in sentences with both a full subject and a predicate. I have also included as the (a) examples of (14-16) sentences with pronominal enclitics, since as I will argue below, they function here in the same way as the demonstrative enclitics.

- | | | |
|---------|---------------------|---|
| (14) a. | ngàmén ndèr zwà cá | 'Ngamin is a farmer' |
| b. | ngàmén ndèr zwà ná | 'Ngamin is a farmer' (Ngamin is present) |
| c. | ngàmén ndèr zwà ndá | 'Ngamin was a farmer' (but is not now,
e.g. he has died) |
| d. | ngàmén ndèr zwà ngá | 'Ngamin is a farmer' (Ngamin not present) |
| (15) a. | ùsmân hébà cá | 'Usman is a Kilba' |

- b. ùsmân hébà ná 'Usman is a Kilba' (Usman is present)
 c. ùsmân hébà ndá 'Usman was a Kilba'
 d. ùsmân hébà ngá 'Usman is a Kilba' (Usman not present)
- (16) a. màhì'yì nà màhì hébà ndá 'these women are Kilbas' (? or 'these women were Kilbas'—see below)
 b. màhì'yì nà màhì hébà ná 'these women are Kilbas'
 c. màhì'yì nà màhì hébà ngá (same translation)

The sentences in (14-16) all have the form:

Subject + Predicate + Enclitic

Since the subject is overtly expressed, these sentences would appear to have the structure of the Hausa sentences in (1a,b), with the enclitic serving purely as a copula. Note that here even the pronominal enclitics may serve this function (the (a) versions of (14-16)), i.e. though these enclitics had to be interpreted as subjects in the sentences in (5), here they would be redundant in this function.⁷

There are a number of questions about interpreting the enclitics as copulas. First, the sentences in (4), as well as those in (6) for one of the speakers I worked with, show that "copular" sentences do not require copulas in order to be grammatical. This is not a serious problem for interpreting the enclitics as copulas, however. The copular use of enclitics in Kilba is undoubtedly a rather recent development⁸ and is only in the process of being

⁷In (16) I have not included a separate sentence for the "past tense" demonstrative enclitic ndá. This enclitic is identical to the 3rd person plural pronominal enclitic in (2a). Although one would expect (16a) to be ambiguous between "neutral" 'these women are Kilbas' and 'these women were Kilbas', I could not elicit a clear judgement to this effect, the neutral reading seeming to be the stronger, if not the only one.

⁸There is nothing like a copula at all in Bura, a language closely related to Kilba on which I also did research into the structure of equational sentences. Development of copulas from demonstratives may, however, be a feature of the immediate sub-group to which Kilba belongs. Hoffmann [1963: §137ff.] discusses a particle ḡé (= ḡ) in Margi which he calls a "demonstrative" but which in all its productive uses looks much more like a copula. It can be used as an "empty" subject in such sentences as fàtì ḡ 'it's a lie' and nì ḡé 'it's me' (§138), but I can find no examples in Hoffmann's

grammaticalized. Even in Hausa, where the copular function of *ne/ce* is well established and virtually always is adhered to in normal speech, copular sentences do not require *ne/ce* to be grammatical, as shown by many proverbs, formulaic sentences, etc. which have this structure but no *ne/ce*, e.g. (Hausa) *hali zanen dutse* "Character is immutable" (lit: character (is) etching-of stone).

A more serious question is whether even sentences such as (14-16) really do require a copular interpretation of the enclitics. There are two possible alternatives. The more plausible is that the "subject" is, in fact, a topicalized noun phrase, and the "real" grammatical subject is the enclitic, i.e. (14a) might be translated 'as for Ngamin, he is a farmer'. The other alternative is that the initial noun phrase is the subject and that the enclitic is an "afterthought", i.e. (14a) might be translated 'Ngamin is a farmer, he is'. This latter interpretation is almost certainly wrong, since the "afterthought" function would usually be filled by a "stressed" pronominal form, say one of the independent pronouns (2a) or long demonstratives (3a), not an enclitic. Moreover, as Sandy Thompson [p.c.] points out, afterthoughts are usually used to impart fuller information to what precedes, a function pronouns cannot fill.

I have no hard syntactic evidence against the "topic" or "afterthought" interpretations. However, a number of facts persuade me that the copular rather than pronominal interpretation for the enclitics in (14-16) is the most likely. First, nothing in their production suggests topicalization or afterthought—they are uttered with no intonation break or insertion of topicalizing particles typical of Chadic languages. Second, nothing in their use suggests a marked structure. Although all the sentences here arose through direct elicitation from informants rather than from free texts, they were all translations of "neutral" Hausa or English copular sentences. Finally, the

grammar where it is used in equational sentences with both subject and predicate expressed. This seems to be a Kilba innovation. Note that Margi *ŋé*, though historically related to the demonstratives, has clearly become grammaticalized in a copular function. It is invariable and is phonologically quite distinct from present day demonstratives (*kə* 'near', *ta* 'far', *na* 'known'), and it has no productive attributive or anaphoric functions, though Hoffmann (§137) does note a few frozen expressions where it is attributive.

difference in meaning between sentences with and without clitics, as well as between sentences with different kinds of clitics, has nothing to do with differences in topic, but with tense, visibility, and distance.

This is not to suggest that topicalization of subject with a pronominal subject "copy" is not the historical source for sentences with copulas in Kilba. Indeed, the Li and Thompson [1977] hypothesis would suggest that this is a likely source. Looking back at (6) and (6'), if topicalized subjects were the source for (6'), i.e. 'as for me, I'm a farmer', etc. then we can understand why all speakers would accept such a sentence—topicalization would have always been part of Kilba grammar. The sentences in (6), however, would seem to lack a direct historical source, since pronominal subjects would have been expressed by enclitics in both "simple" sentences and those with topicalized subjects.

Further support for the copular interpretation of the demonstrative enclitics comes from (17), where the sentence initial pronoun is the only mark of subject and an interpretation such as *'as for me, it's the chief' is untenable.⁹

- | | | |
|---------|----------------------|--------------------------|
| (17) a. | nàyà tál ná | 'I am chief' |
| b. | nàyà tál ndá (hâadà) | 'I was chief (formerly)' |
| c. | ?nàyà tál ngá | 'I was chief' |

On balance, then, it seems that the enclitics in sentences such as (14-17) are functioning as true copulas. In the next section I will consider the status of these enclitics in a comprehensive grammar of Kilba.

4. The Grammatical Status of the Enclitics

To conclude, we should see whether we can establish some unified grammatical account of the enclitics. There are cases where the pronominal enclitics are clearly the subject of the sentence, e.g. the sentences in (5) with a

⁹Hamman preferred the temporal adverb with (17b)—the sentence seemed incomplete otherwise. It is also possible to say nàyà tál yá hâadà 'I was chief formerly' with the pronominal enclitic. Of (17c), he said "one would not say that about himself". This undoubtedly is a pragmatic rather than a grammatical restriction, since ngá usually has the connotation "not seen".

nominal predicate and a referential subject. There are also cases where enclitics seem best analyzed as copulas, i.e. sentences such as those seen in the last section with both an expressed subject and predicate in addition to the enclitic. Note that not only demonstrative enclitics, but also pronominal enclitics, can serve this function, as in the (a) versions of (14-16) and perhaps (6'). We cannot, therefore, make a distinction, saying that the pronominal enclitics are always subject pronouns and demonstrative enclitics are always copulas.

There is a swing category of sentence, viz. the type illustrated in section 3.2, with only a nominal or pronominal predicate followed by one of the demonstrative enclitics. Here the enclitic fills the same syntactic slot as the pronominal enclitics, but functionally the way these sentences are used as well as the way they are translated back into English or Hausa suggest that the subject is really empty, with the enclitic indicating temporal and/or spatial distance of the referent to which the predicate refers.

I suggest an analysis along the following lines for Kilba equational sentences. The rule in (18) describes the structure of such sentences:

(18) $S \rightarrow (NP) NP \text{ (enclitic)}$

Any type of enclitic may fill the "enclitic" position, but there can be no more than one, i.e. sentences with both a pronominal and a demonstrative enclitic are ungrammatical:

(19) *ndèr zwà yá $\left\{ \begin{array}{l} \acute{n}\acute{a} \\ \acute{n}\acute{d}\acute{a} \\ \acute{n}\acute{g}\acute{a} \end{array} \right\}$ ('I am/was a farmer')

The only restriction on surface structures generated by (18) is that the initial NP and the enclitic cannot be in conflict. By "conflict" I mean disagreement between person or number features of the initial NP and the pronominal enclitic. This restriction will preclude sentences such as *ngámén h́bà yá (Ngamin-Kilba-I) or *nàyà h́bà cá (I-Kilba-he). There are no co-occurrence restrictions between the initial NP and demonstrative enclitics.

A reasonable interpretation of the enclitics seems to be that they are neither strictly subjects nor strictly copulas. The enclitic position ful-

fills both functions, but Kilba provides a range of morphemes which can appear here. In a sentence such as *hébà yá* 'I am a Kilba', *yá* is a full pronominal subject which we could say fulfills the function of a copula since a noun phrase in conjunction with such an enclitic is interpreted as equational. In a sentence such as *kètòn ndá* 'it was a sheep', *ndá* is essentially a copula which we could say also functions as an "empty" subject. In sentences such as *ùsmân hébà cá* 'Usman is a Kilba', we could say that the pronominal enclitic is a copula which agrees in person and number features with the subject. In sentences such as *ùsmân hébà ndá* 'Usman was a Kilba' we do not want to say that the demonstrative enclitic *ndá* fulfills a different syntactic function from *cá* in the preceding sentence, only that it incorporates temporal or spatial features different from those indicated by *cá*.

REFERENCES

- Greenberg, J.H. 1960. "An Afro-Asiatic pattern of gender and number agreement." *Journal of the American Oriental Society* 80:317-321.
- Hoffmann, C. 1963. *A Grammar of the Margi Language*. London: Oxford University Press.
- Klingenheben, A. 1927/28. "Die Silbenauslautgesetze des Hausa." *Zeitschrift für Eingeborenen-Sprachen* 18:272-297.
- Li, C.N. and S.A. Thompson. 1977. "A mechanism for the development of copula morphemes." In Charles N. Li (ed.), *Mechanisms of Syntactic Change*, pp. 419-444. Austin and London: University of Texas Press.
- Newman, Paul. 1977. "Chadic classification and reconstructions." *Afro-asiatic Linguistics* 5(1):1-42.
- Parsons, F.W. 1961. "The operation of gender in Hausa: the personal pronouns and genitive copula." *African Language Studies* 2:100-124.
- Rufa'i, Abba. 1977. "Grammatical agreement in Hausa." Unpublished doctoral dissertation, Georgetown University.
- Schachter, P. 1966. "A generative account of Hausa ne/ce ." *Journal of African Languages* 5:34-53.