

# ON THE FORM AND FUNCTION OF PRE-PRONOMINAL MARKERS IN CHADIC<sup>1</sup>

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## 1. *The problems*

There are several problems intimately connected with pronominal affixes in Chadic. These problems may be connected with each other and an explanation of one may possibly shed some light on other problems. The following problems will be discussed in the present paper:

(a) In several languages there exist pre-pronominal markers whose function is poorly understood. I will illustrate this problem in the example of Hausa, because it is the most familiar Chadic language and also because it is fairly typical for the situation under consideration.

Whenever a verb in Hausa is followed by a pronominal object the final vowel of the verb is lengthened, and in one verbal form, the so-called Grade II in Parson's 1960 classification, the final vowel of the verb is replaced by *-ee*,<sup>2</sup> e.g.

<i>yaa kaamà dookìi</i>	he caught a horse
<i>yaa kaamàa shi</i>	he caught it
<i>yaa sàyi dookìi</i>	he bought a horse
<i>yaa sàyee shi</i>	he bought it

Zima (1966: 219), from whom the above examples are quoted, states that in certain eastern dialects the final vowel lengthening may occur also when there is an indirect object following the verb. He does not give examples nor references for this observation.

The unanswered question is, what is the function of the pre-pronominal vowel lengthening and/or change? For if the function of this change were to indicate that the following morpheme is a pronoun, then this function would be at best redundant, for the identity of the following morpheme is never in doubt. The pronominal affixes are not affected by morphophonemic rules that would make their identification difficult. And while it is possible that one language would develop such redundant markers, it is difficult to conceive of a number of languages developing them independently. Most of the authors writing on Hausa or other Chadic languages simply state the fact about the presence of these markers without asking a question about their function. Zima seems to be the only one who does ask such a question about the function. His answer is contained in the statement: '... the presence of the nominal or pronominal object in the position immediately after the verb is expressed in Hausa by a series of morphemes either after the verb or amalgamated with its final vowel' (Zima, 1971: 220). The implication of this statement is that the function of these morphemes is redundant.

Looking for a non-redundant function, one would obviously think that the pre-pronominal markers serve to differentiate between different types of

<sup>1</sup> The work on this paper was supported by an NEH Grant No. 000259802095. I would like to thank my research assistant, Michael Serwatka, for substantive and stylistic comments on the paper. I would like to thank Paul Newman of the University of Leiden, Russell Schuh of the University of California, Los Angeles, and Ekkehard Wolff of Maiduguri University, for comments on some portions of this paper.

<sup>2</sup> For alternative analysis of the derivation of *-ee* see Newman (1973 and 1979) and also comments further on in this paper in respect of Newman's analysis.

pronominal affixes, such as between direct and indirect object pronouns, or between subject and object pronouns. The answer to this question cannot be given on the basis of synchronic analysis of any one language, for in most of the Chadic languages involved the difference is often marked by some other devices. Thus in Hausa the indirect object pronouns are marked by the particle *ma-* and the subject pronouns are marked as such by their position preceding the verb. A more satisfying answer can be obtained through a comparative study of the distinctions made between the direct and indirect object pronouns and also between the subject and direct object pronouns.

(b) The study of the distinction between the direct and indirect object pronouns constitutes the second problem discussed in the present paper. In the languages for which some descriptions are available, there appear to exist three different types of cases :

(i) No distinction is made between DO and IO pronouns. This means that the language has no structural devices of any sort for differentiating between the two types of pronouns and in effect has only one type, viz. object pronouns.

(ii) Pronouns from the two sets differ phonologically. The differences may be marked in two ways. One is through differences in the segmental structure of the pronoun and the other is through differences in the tonal structure. In some languages the difference between the two types of pronouns is limited to certain persons only.

(iii) There are pre-pronominal, or less often post-pronominal, markers which indicate the role of the pronoun. When these markers are present they are not restricted to some persons only, i.e. there are no cases in which 3 p. or 1 p. only are marked by pre- or post-pronominal markers.

The question of the reconstruction of the system of distinctions between the DO and IO pronouns in Proto-Chadic should be broken into two separate but connected questions: (1) was there or was there not a distinction between the two types of pronouns in Proto-Chadic, and (2) if there was a distinction can one reconstruct the marker that differentiated between the two sets of pronouns?

The first question is a question about the existence of a grammatical category. The answer to this question could be provided by examining all Chadic languages. If one were to find that in all languages the distinction between the two sets of pronouns is marked in one way or another, then one would have to postulate that there was also a distinction between the two sets of pronouns in Proto-Chadic, even if no cognates among the markers of distinctions were found in the present-day languages. The reasoning behind this conclusion is mainly based on the improbability of many languages developing independently the same grammatical category in the same time. If, on the other hand, one were to find that there are languages in several branches of Chadic that do not mark the distinction between the two sets of pronouns, then the following picture would emerge :

	Branch A	Branch B	Branch C
DO = IO	X	X	X
DO ≠ IO	X	X	X

One would then be faced therefore with two alternatives for the possible system in a proto-language, for one has to consider lack of a distinction as possible retention from a proto-language in the same way in which one considers

the existence of a distinction as a possible retention from a proto-language. The question of which alternative one is to postulate could be easily resolved if one were to find some cognate markers of distinction in at least two branches of the family. Finding the cognate markers would be evidence enough not only for the existence of the grammatical category in the proto-language but it would also be evidence for the reconstruction of the markers of distinction between IO and DO pronouns in the proto-language.

## 2. *The data*

The following charts represent the distribution of distinctions between the DO and IO pronouns in three of the four branches of Chadic. For the fourth branch, Masa (Barreteau and Newman, 1978), the available descriptions do not provide the necessary data and therefore the fourth branch will not be included in the discussion. In the remaining branches only those languages were included for which there is an explicit statement in the description concerning the differentiation between the DO and IO pronouns. In a number of descriptions no such statements were available and, if the data were not sufficient to extrapolate information concerning the differences between the DO and IO pronouns, such languages were not included in the discussion. When a distinction is indicated it means that there is at least one environment in which a distinction is made. It does not necessarily mean that the distinction is made in all grammatical paradigms of the language. The order in which the data are presented follows the classification in Barreteau and Newman (1978). Out of 143 languages in this classification, only 39 have been included in the present discussion.<sup>3</sup>

In the following charts the equation  $IO = DO$  means that there is no distinction in phonological form between the two sets of pronouns. The second column,  $DO \neq IO$  means that there is a phonological difference between the two types of pronouns. Specifications within each language indicate which forms are affected. If the first column is marked by an X and no other columns are marked, then it means that there is no distinction in the language between the DO and IO pronouns. If the first column is marked by an X and other columns are also marked, it means that the distinction between the two sets of pronouns is marked by some other devices. If the markers in the last two columns are identical and the first column is marked by an X then, again, there is no difference between the two sets of pronouns.

The lines separating the language entries correspond to the divisions in Barreteau and Newman. The double line ----- corresponds to a major division within each branch. The continuous line \_\_\_\_\_ corresponds to the division between groups within each major subdivision. The interrupted line - - - - - divides languages belonging to the same sub-group.

<sup>3</sup>The following were the sources of languages included in the charts: Hausa: Parsons (1960); Gwandara: Matsushita (1973); Bolancei: Lukas (1970-1); Bele, Kirfi, Galambu, Gera: Schuh (1978); Kanakuru: Newman (1974); Pero: Frajzyngier MS; Angas: Burquest (1973); Sura: Jungraithmayr (1963-4); Bokkos, Daffo-Butura, Kulere, Scha, Fyer: Jungraithmayr (1970); Ngizim: Schuh (1972); Pa'a: Skinner (1979); Tera: Newman (1970); Ga'anda: Ma Newman (1971); Margi: Hoffmann (1963); Kapsiki: Smith (1969); Glayda: Rapp (1966); Dghwede: Frick (1978); Hitkalanci: Lukas (1964); Lamang: Wolff (1980); Mandara: Mirt (1971); Wandala: Lukas (1937); Mofu-Gudur: Barreteau (1978); Gisiga: Lukas (1970); Daba: Mouchet (1967); Logone: Lukas (1936); Musgu: Meyer-Bahlburg (1972); Mulwi: Tourneux (1978); Kera: Ebert (1979); Somray: Jungraithmayr (1978); Dangla: Ebobissé (1979); Mubi: Lukas (1937); Mokilko: Jungraithmayr (1977).

Chart I  
 West branch

	DO = IO	DO $\neq$ IO	Pre-pro.	DO marked	IO marked
Hausa <sup>4</sup>	X except 3 sg.	X 3 sg.	X	Vowel length - <i>ee</i>	<i>ma-</i>
Gwandara	X		X	If both IO and DO present, <i>n</i> -DO	
Bolanci <sup>4</sup>	X		Post-pro. and Pre-pro.	<i>ii-</i>	<i>-ii</i> (following IO) Not always present
Bele	X		X	<i>a-</i>	
Kirfi		X Tonal			
Galambu		X Tonal			
Gera	X				
Kanakuru		X	X	Suffixed to final vowel	Suffixed to verb root
Pero <sup>4</sup>	X		X	<i>ee-</i>	
Angas		X Tonal			
Sura	X				
Bokkos	X	X 1 sg.	X		<i>a-</i>
Daffo-Buttura	X 1 sg., 2 f., 3 m., f.	X 2 m., 2 pl., 3 pl.	X	<i>s-</i>	
Kulere	X		X	<i>t-</i>	<i>t-</i>
Sha	X		X	<i>u/o/e-, -t-</i>	<i>a-t-</i>
Fyer <sup>5</sup>	X		X	<i>a</i> Nom. and pron.	<i>ti-</i>

<sup>4</sup> A rather detailed analysis of the markers in Hausa, Pero and Bolanci will be presented in section 4 of the present paper.

<sup>5</sup> The situation in Fyer is rather complex. According to Jungraithmayr there are two classes of verbs in this language. In one class the nominal direct object is marked by *a* and the pronominal indirect object is marked by *ti* (no examples of the latter are provided). In the second class of verbs the indirect object is unmarked while the direct pronominal object is marked by *ti*. Compare the following examples:

- Class A. DO nominal marked by *a*  
*mí kur-is* he caught it  
*mí kur-a bálvóó* he caught a snake  
*mí kur-is a bálvóó* he caught him a snake
- Class B. IO unmarked; DO marked by *ti/t*  
*mí dí-tiit* he cooked it  
*mí dí fweet* he cooked food  
*mí dí-it fweet* he cooked her food

What appears from Jungraithmayr's analysis is the fact that while *a* may mark the direct object only the marker *ti* may mark both direct and indirect (no examples though) object. There is not enough data to predict which verb will belong to class A and which to class B. I am grateful to Michael Serwatka for pointing the above facts out to me.

## West branch

	DO = IO	DO ≠ IO	Pre-pro.	DO marked	IO marked
Ngizim	X		X	-g-a-	<i>ii-</i> marker for nouns and pronouns
Pa'a	X except 3 p.	X 3 p.	X	Added to verb final vowel	<i>e-</i>

## Chart II

## Bin-Mandara branch

	DO = IO	DO ≠ IO	Pre-pro.	DO marked	IO marked
Tera	X?		X	<i>to-</i> sporadically	<i>ye-</i> marks nouns and pronouns
Gaanda	Subj. = IO		Post-pro. X		<i>eo</i> occurs when IO is followed by Subj. or DO
Margi	X		X		<i>ri-</i> deriv. morpheme, became integral part of the verb
Kapsiki	X except 3	X 3 sg., pl.			3 p. <i>nda</i>
Glayda	X		X	<i>ka-</i> <i>ks-</i>	<i>n</i>
Dghwede	X except 3 sg.	X 3 sg.	Post-pro.		(a)-Pro. <i>i</i>
Lamang	X	?	X	<i>to-</i>	<i>to-</i> <sup>6</sup>
Mandara	X		?	?	?
Waulala	X		?	?	?
Mofu-Gudur	X		?	?	?
Gisiga	X			<i>a-</i>	<i>ay-</i> or prep. <i>k</i> in some contexts only
Daba	X	1 sg. 3			
Logone	X		?	?	?
Musgu	X except 3 sg.	3 sg.		?	?
Mulwi	X				

<sup>6</sup> The data in the chart are extrapolated from Wolff (1980) where one finds the following sentences (p. 59) in support of *to* as the marker of benefactive: *Tali re / ka mbaga t mandra*, *Bin ich die riaz ye / sprach die Maus zum Buschbrand (mandra)*.

*t* is also a variant of the locative preposition *ta* (Wolff, 1980: 144). Wolff (private communication) informs me, however, that the usual marker of benefactive is *ma* before pronouns and *a* before nouns.

## Chart III

*East branch*

	DO = IO	DO ≠ IO	Pre-pro.	DO marked	IO marked
Kera <sup>7</sup>	X except 3 p.	Tonal 3 m., f., pl.			<i>a</i> <i>d</i>
Somray		X Tonal			
Dangla		X			
Mubi	X				
Mukulu	X except 1 sg., 2 pl.	X 1 sg., 2 pl.	Post-pro.		<i>-di/-tu</i>
Mokilko	X				

3. *Discussion of the data*3.1. *The West branch*

For most of the languages the following facts may be observed. Whenever DO = IO the language will have a pre-pronominal marker. Whenever DO ≠ IO the language will not have a pre-pronominal marker. The only exception to this observation is Kanakuru where the two sets differ phonologically and at the same time differ in the manner of suffixation to the verb. The difference in manner of suffixation thus constitutes an additional marker of distinction between the two sets of pronouns.

The pattern of complementary distribution in the case of the pre-pronominal markers and the DO/IO sets indicates that the pre-pronominal markers are functionally connected with the absence of phonological distinction between the DO and IO pronouns. Whenever there is no distinction the pre-pronominal markers fulfil the function of distinguishing between the two sets of pronouns. The IO marker *ma-* in Hausa seems to be an innovation in this language since it does not occur in any other language of the West branch or in any other language of the remaining branches of Chadic.

Looking at possible common West Chadic pre-pronominal markers one has to consider two forms: one is the marker *ti-* and the other is various vocalic markers. In some languages the marker *ti-* marks both DO and IO pronouns. In other languages it marks only the IO. In no language of the branch does it mark only the DO. From this distribution one may conclude that its primary function is to mark the IO.

The vocalic markers are also used to mark both IO and DO pronouns. Thus *a-* in Bele marks the DO while *a-* in Bokkos marks the IO, *ii-* in Bolanci marks

<sup>7</sup> The tonal distinction between the DO and IO pronouns occurs in certain verbs. In some cases the distinction is marked on suffixes, in others on verbs. If the indirect object is a pronoun and direct object is 3rd person then, the DO is marked by marker *d* plus repetition of the IO marker, e.g.

*yaak-* + *n d* *n* → *yaakan dñ* he leaves it to me  
*yaak-* + *m d* *m* → *yaakan dñm* he leaves it to you

Benefactive pronominal is marked by *a* when the DO is also pronominal but not the 3rd person. Note that *a* is the locative marker in Kera, the basic locative construction having the form *a N a*, e.g.

*a kɔ̀bɛr ù* in bed

the DO while *ii-* in Ngizim marks IO, nominal and pronominal. However, unlike the marker *ti-*, no language is using the same vocalic marker to mark both DO and IO. This clearly indicates that the role of the vocalic pre-pronominal markers is specifically to mark the distinction between IO and DO. The same conclusion cannot be reached for the marker *ti-*. The data in the West branch point to the primary function of the vocalic markers as indicating the DO. The number of languages, however, in which they indicate the IO is large enough to postpone the final conclusion until more data are available.

### 3.2. *The Biu-Mandara branch*

The prevailing pattern in the Biu-Mandara branch is the lack of any phonological difference between the 1st and 2nd person and the presence of phonological difference for the 3 p. DO and IO pronouns. From the pragmatic point of view it is the 3 p. and 1 p. for which the information is required, and where a distinction exists one would expect to find it in the 3 p. and in the 1 p., and most probably in that order—in other words, if only one person were marked, one would expect it to be 3, if two persons, it would be 3 and 1. This prediction is supported to a certain degree by the data from the Biu-Mandara branch. Thus in Daba the distinction is marked for the 3 and 1 p.

The Glayda DO markers *ki-* and *ks-* seem to be innovations for they have no cognates in any other Chadice language.

Since in many languages of the Biu-Mandara branch there exists a distinction between the 3 p. IO and DO pronouns, one would be justified in postulating that this distinction existed already in Proto-Biu-Mandara. In order to be certain that this was indeed the case, one should have to look into the question of whether or not the markers of the difference between DO and IO are cognates. Chart IV tabulates the IO and DO markers in the 3rd person. From this data one cannot with confidence reconstruct a common feature distinguishing the DO from the IO. The most likely possibility is that indeed Proto-Biu-Mandara had a distinction between DO and IO for 3 p. and possibly 1 p. and that subsequently each language continued to mark it, but by different means.

Chart IV

#### *Third person DO and IO markers in Biu-Mandara*

		DO	IO
Kapsiki		<i>σ</i>	<i>-idi</i>
Dghwede		<i>σ</i>	<i>-iré</i>
(The above distinction occurs with a few verbs only)			
Daba	3 p.	<i>tik</i> <i>ni/ju</i>	<i>ni</i>
	1 p.	<i>ka</i>	<i>ok</i>
Maszu	m.	<i>u</i>	<i>ni</i>
	f.	<i>ti</i>	<i>di</i>

### 3.3. *East Chadice*

The most significant fact about the East Chadice languages is that at least two of the languages, Somray and Dangla, distinguish the entire set of DO and IO pronouns phonologically. Although in the two languages the two sets

differ phonologically one cannot with certainty postulate that the Proto-East-Chadic had a phonological distinction between the two sets. The reason for this uncertainty is the fact that in the two languages different means are used to mark the distinction. Thus in Somray the difference is marked by tonal distinctions, viz. the mid tone indicates DO and the high tone indicates IO, e.g.

<i>nə̀ àsgə</i>	I put them
<i>nə̀ àsgá</i>	I put for them

In Dangla the difference is segmental, viz.

	DO	IO
1	-no	-òr
2 m.	-nye	-eny
3 f.	-ke	-ke
3 m.	-gà	-èy
f.	-tyà	-tì
Pl. incl. 1	-ye	-tè
excl. 1	-niy	-niy
2	-kon	-kòy
3	-gu	-tyò

In Mukulu the difference between the DO and IO pronouns is marked in the 1 sg. and 2 pl. The 1 sg. IO may be cognate with the corresponding form in Dangla. Compare the Dangla forms with the following Mukulu forms:

	DO	IO
1 sg.	<i>nì</i>	-óo
2 pl.	<i>kun</i>	-ún

Since Mukulu also has the IO marker *-di -ti* it would be interesting to know the relative chronology of the two devices for differentiation of the DO and IO pronouns. The differentiation that occurs in the 1 sg. and 2 pl. may be a remnant of a more extensive system of differentiations which included all other persons.

#### 3.4. Comparison of the three branches of Chadic

The best evidence that Proto-Chadic made a distinction between the DO and IO pronouns would be reconstruction of the device that was used to mark this distinction. In the three branches of Chadic there are several devices that could plausibly fulfil this role.

3.4.1. Tonal differences are used in all three branches and therefore they should be considered in any attempt at the reconstruction of the differentiating device. Despite the fact that tonal differences are used in all three branches, tone is inherently not particularly good material to be used in reconstruction. In most of the Chadic languages there are only two tones, so there are only two possibilities for contrast. In languages in which there are three tones reported, the possibility is increased. The following chart represents the distribution of the tonal markers in languages in which tone is the only device used to mark the distinction between the DO and IO pronouns and also in languages in which it is one of the devices to mark this distinction.

Chart V

*Tones as markers of DO/IO differentiation*

	DO	IO
Kanakuru	H	L
Kirfi	H L	L H
Galambu	LH	HL
Angas	H	L
Daffo-Buttura	L M	M H
Somray	M	H
Kera	H	non-high

Thus in some languages the DO pronouns are marked by a tone higher than the tone of the IO pronouns while in other languages the DO pronouns are marked by a tone lower than the tone of the IO pronouns. For a reconstructed system no actual function could be attached to either the high tone or the low tone in respect to the distinction between the two sets of pronouns.

### 3.4.2. Segmental differentiation

The number of languages in which there is a segmental difference between the DO and IO pronouns is very small. Therefore, the conclusions from the comparison of appropriate forms must remain very tentative. In West Chadice it is only Kanakuru and in East Chadice only Dangla that have the full sets of pronouns differing in their segmental structure. Nevertheless, if one were to find cognates in these distantly related languages one could claim that they represent retentions from a proto-language. The following are the full sets of pronouns in Kanakuru and Dangla, the latter repeated here for ease of comparison:

	DO		IO	
	Kanakuru	Dangla	Kanakuru	Dangla
1	<i>né</i>	<i>-no</i>	<i>-nò</i>	<i>-òr</i>
2 m.	<i>-hé</i>	<i>-nye</i>	<i>-wò(ho)</i>	<i>-eny</i>
2 f.	<i>-jí</i>	<i>-ke</i>	<i>-jì</i>	<i>-ke</i>
3 m.	<i>-yí</i>	<i>-ga</i>	<i>-nì</i>	<i>-èy</i>
1 pl.	<i>-móni</i>	<i>-ye</i>	<i>-m(ù)</i>	<i>-tè</i>
2 pl.	<i>-máì</i>	<i>-kon</i>	<i>-màì</i>	<i>-kon</i>
3 pl.	<i>wíní</i>	<i>gu</i>	<i>w(ù)</i>	<i>tyo</i>

A rather interesting picture emerges from the above comparison. While the forms for the DO suffixes have a few forms that may be considered cognates, such as forms for the 1 p. sg., 2 f. and 3 pl., no such forms can be found in the IO set except for the 2 f., which in both languages is identical with the DO forms. Therefore the data from Kanakuru and Dangla do not allow reconstruction of the segmental difference between the DO and IO pronouns in Proto-Chadic.

3.4.3. What remains to be considered are the external markers of the function of pronouns, viz. the vocalic markers and the particle/preposition or post-position *ti*. The vocalic markers occur in three branches: West, East and Biu-Mandara. In the latter branch they are reported in only two languages, Gisiga and Dghwede.

The Gisiga marker *a* occurs both as the marker of DO and a part of the marker of IO, the latter being additionally marked by *n*. The Dghwede markers are not explicitly analysed by Frick (1978) and my own analysis indicates that there is certainly a marker *-i* indicating the IO and possibly *a*-also indicating the IO. As has been pointed out in Section 3.1, the vocalic marker in West Chadic may have had the primary function of indicating the DO pronoun, although in two languages they mark the IO rather than DO pronoun. The Biu-Mandara data do not indicate that one has to revise the analysis proposed for West Chadic, for they equally well support both possibilities, i.e. that the primary function of the vocalic marker was to indicate the DO or IO. But in Kera, *a* marks the IO pronominal object.

Chart VI

*ti* as a pronominal marker

	DO	IO	Locative
Pero		<i>ti</i> occasionally	<i>ti</i> 'to, toward, at'
Bolanci		<i>ti</i>	?
Scha		<i>-a-t</i>	?
Fyer	<i>ti</i>	<i>ti</i>	<i>ti</i> 'to, by, with, through'
Kulere	<i>t-</i>	<i>t-</i>	?
Margi		<i>ri</i> Suff. to verb	?
Lamang	<i>ta</i>	<i>ta</i>	<i>ta</i>
Mukulu		<i>di</i>	<i>di, ti</i>
Kera		<i>də</i> 3 p.	

What finally remains as a possibility for the Proto-Chadic differentiating morpheme is *ti*. It occurs in all three branches of Chadic. Chart VI shows the distribution of this morpheme in the three branches. Apart from its function in relationship to the DO and IO pronouns, the chart also indicates whether or not the morpheme has a locative function. The justification for the inclusion of this information will become apparent in the discussion of the chart. Note that it is assumed in the present discussion that such forms *ti*, *t-*, *di* and even *-ri* are cognate. This will not be proved in the present paper but the phonological similarity and the syntactic properties of these forms leave little doubt about their being reflexes of the same proto-form. For those not familiar with Chadic phonology one has only to point out that there is a frequent rule in Chadic by which an alveolar stop becomes [r] in intervocalic position, and also that the process of devoicing of consonants is frequent in many Chadic languages.

Given that *ti* occurs in all three branches of Chadic as a marker of IO, there are two possible explanations for this fact. One is that it is a retention from Proto-Chadic. Another possibility is that it is an independent innovation in all three branches. Such innovation would be entirely possible due to the fact that it constitutes a functional extension of the locative marker *ti*. The connexion between the locative meaning 'to, toward', etc., and the benefactive marker is independently supported by many languages from diverse language families. Therefore both alternatives are equally possible and I do not see any argument that would convincingly rule out one possibility in favour of another just on the basis of the IO markers alone.

One of the most puzzling facts about the marker *ti* in Chart VI is the fact that it often marks the DO pronoun as well. It should also be pointed out that although the discussion deals only with pronouns, in fact *ti* marks both nominal and pronominal direct and indirect objects.

The first question concerns the function of the marker *ti* in the system of pronominal markers. The simple answer that it marks the direct object, an answer most frequently found in descriptive studies, is not satisfactory because it does not state what, if any, is the unmarked counterpart of this construction. The only reason to mark one set of pronouns is to distinguish it from some other set of pronouns. This other set of pronouns cannot be the IO pronouns for they are also marked by *ti*. In fact, whenever the DO pronoun is marked by *ti*, so is the IO pronoun. That means that *ti* marks DO in contrast to another set, and the only set that remains to be considered is subject pronouns.

One condition under which the DO would be marked in contrast to the subject pronouns is when subject pronouns and DO pronouns do not differ from each other phonologically and are not marked by a different syntactic position. If the language makes a distinction between the categories Subject and DO, then the above condition would require a marker to be added either to the Subject or to the Object. Now one can predict to which form it would be added if one knows which is the semantically unmarked category in the language. If the subject is semantically unmarked then the object will be marked; if the object is semantically unmarked, then the subject will be marked.

Before going into the discussion of what actually happens, it is important to describe the relative chronology of the addition of *ti* to the DO nouns and pronouns. Since there are languages in which IO and DO are both marked by *ti*, and there are languages in which IO but not DO is marked by *ti* and there are no languages in which DO but not IO is marked by *ti*, it follows that *ti* was first a marker of the IO and only later became a marker of the DO. This change, in which *ti* becomes the marker of the DO must have occurred in Proto-Chadic, for both DO and IO are marked by *ti* in languages from the three branches of Chadic. The reason for this conclusion is the fact that separate languages will have several options available when marking the DO. The possibility of several languages choosing the same option independently is less likely than the possibility that this option was chosen by the proto-language and was then retained by some of its descendants. We have established therefore the following sequence of functional change:

locative → benefactive → patient

Note that whenever a morpheme assumes the new function it does not have to lose its previous function. And in fact in the case of *ti*, in most of the Chadic languages, whenever it has the function of marking the patient it also marks

the benefactive and most probably the locative (for some languages data concerning the locative function were not available).

We have now established that *ti* became the marker of DO after it already was the marker of IO. We can postulate that when it marked IO it marked IO in contrast to both subject and object pronouns. We can now return to the distinction between the subject (agent) and DO (patient) pronouns. The lack of distinction between these two sets must have come about through some structural change by which one or the other set had lost its distinguishing feature(s). There are several possible ways in which such structural change might have occurred. In the present paper I will consider only one possibility, which is linked with the relative position of the subject and object pronouns. In considering this possibility, by no means do I want to claim that this factor was the sole cause of the change. It will be shown, however, that it might have been one of the factors involved in the structural change, even if it was not the only factor.

In the contemporary Chadic languages the subject pronouns are marked by their position with respect to the verb or other pronouns and often, but not always, by their phonological form. In particular, there is no phonological difference when subject, direct and often indirect object pronouns all occur before or after the verb. Such a situation may require introduction of the pronominal markers that make differentiation possible whenever there is only one pronoun after the verb, or where several pronouns occur in sequence. The problems of the word order and morpheme order in the verbal piece are at present under investigation and therefore the following discussion does not aim to reconstruct the order of morphemes in Proto-Chadic, but rather to show that there are, in more than one branch, languages exhibiting the morpheme order postulated as a motivation for the DO pronominal markers to occur.

In West Chadic no language is reported to have both types of pronouns either preceding or following the verb.

In the Biu-Mandara branch there are several languages reported to have all three types of pronouns suffixed in certain tenses. For example, in Ga'anda, when the verb is in aorist or perfective the subject occurs after the verb, e.g.

<i>tɛf</i> — <i>kə</i>	—	<i>i wanda</i>	when I hit the boy . . .
hit — sequential	—	I boy	

If there are pronouns other than the subject they follow the verb but precede the subject pronouns, so in effect the order of elements is: Tense/Aspect — Verb — IO — DO — Subject. Note that in Ga'anda the IO is marked by the morpheme *-ə* when followed by other pronouns. In other tenses the subject pronoun precedes the verb.

In Dghwede both subject and object can follow the verb. The distinction between the two is marked by low tone on the final syllable of the verb when it is followed by an object.

In Hitkalanci, a language closely related to Lamang, the subject pronouns are suffixed to the verb while the object pronouns are infixes between the verb and the subject pronouns.

In Mandara, in certain tenses (non-perfective), the subject pronoun occurs before the verb while the object pronoun follows the verb. In other tenses, e.g. in perfective, the verb-root is followed by the subject pronoun which is then followed by the object pronoun.

In the East branch, several languages have the order Subject-Object-Verb when both Subject and Object are pronominal. In Mukulu the order S-O-Verb

occurs in all tense/aspectual forms. In Mubi it is noted in some tenses only, viz. in the preterite (past). In Mokilko the order S-O-Verb seems to be the only order possible.

In some languages of East Chadic the situation appears to be the mirror image of that in some of the languages of Biu-Mandara. Thus while several languages in Biu-Mandara have the order V-O-S, several languages in the East branch have the order S-O-V. In both cases there is an appropriate environment for functional justification of the object markers. The reason for this conclusion becomes obvious if one considers a situation in which one of the elements is absent. In such a situation, without contrastive markers it would not be possible to determine the function of the only pronoun present.

The fact that the two morpheme orders may be cognate is supported by the distribution of these sequences of morphemes in those languages in which the pronouns may also be separated by the verbs. Whenever such is the case the pronouns occur in sequence in the past/perfective/preterite, but not in the future/present. Occurrence of the sequence of pronouns in only these tenses in two branches of the Chadic family is some evidence that this structure is a retention from Proto-Chadic, and it is possible that the situation in the present West Chadic languages is the result of innovation.

Thus the data from the contemporary languages show that there is a context in which the DO may become marked in order to distinguish it from the subject pronouns. In many languages there is also a situation in which the two types of pronouns are separated by the verb and their function is marked by the position in the sentence. One can conceive of a situation in which Proto-Chadic had one type of structure in some tenses, e.g. non-perfective, and another type of structure in other tenses. The fact that two pronouns could occur in sequence in one type of structure might have constituted a motivation for the markers to occur in that part of the grammatical structure. Subsequently the markers would have been generalized and used to indicate the DO in all other environments.

As has been mentioned previously, this is just one of the possible situations for the emergence of the DO pronoun markers. Whether this actually was what happened has not been proved. This situation does not exclude the possibility that some other factors were also involved in the structural change.

The following sequence of changes is postulated as an explanation for the facts to be encountered in contemporary Chadic languages:

#### *Stage A*

Proto-Chadic. IO marked by *ti* or by position with respect to other pronouns. DO distinguished in certain tenses from the subject pronouns by position with respect to the verb. In other tenses, when pronouns from the two sets occur before or after the verb the DO is marked and the subject pronoun is the unmarked category. A possible candidate for the DO markers are vocalic affixes as manifested in West and Biu-Mandara branches, or tonal markers as manifested in Dghwede.

#### *Stage B*

For some reason the DO markers could no longer perform their function. In some languages they are replaced by the markers which already mark the IO. In other languages the construction in which the subject and DO pronouns both follow or precede the verb is eliminated and the distinction between the two sets of pronouns is primarily marked by their position in respect to the verb.

#### 4. *The form and function of Hausa -ee in grade II verbs*

We can now return to the marker *-ee* which served to illustrate the problem at the beginning of this paper. It is a measure of the value of a general hypothesis when it can contribute to the explanation of some particular facts, and in the case of a comparative or historical study of several languages when it can contribute to the explanation of facts in one language. In the case of Hausa, the problem was the subject of several papers completely or partially devoted to it, such as Parsons (1960), Zima (1971), Newman (1973, 1979).

##### 4.1. *The existing analyses of -ee*

Verbs in Hausa are characterized by different endings which depend on the syntactic context. Transitive verbs with no object following them (Context A, in Parsons's classification) end in a long vowel, *-aa*, *-ee* or *-oo*. When a verb is followed by a nominal object (Context C) it ends in *-a*, *-e* or *-oo*. When a verb is followed by a pronominal object (Context B) it ends in a long vowel. There is, however, a group of verbs (Grade II in Parsons's classification, called 'mutable' by Bargery and 'changing' by Abraham) that behaves in a different way in Contexts C and B. These verbs end in a short *-i* in Context C and in long *-ee* in Context B. Parsons (1960: 18) indicates that in all verbs there exists a difference between forms B and C, and that in one group of verbs the quantitative difference is supplemented by a qualitative difference. Since Parsons's presentation is not very explicit because of the paradigmatic model that he uses, it is not completely clear whether the *-ee* which occupies the B slot in the paradigm of the grade forms (1960: 36) represents a separate morpheme or not. No function of this morpheme was stated, and one may conclude that it was considered as just a form that a verb of a particular class assumes in certain syntactic positions. Newman (1973) postulates that it is the C form, i.e. the form of the verb before a nominal object that is basic or underlying, and that other forms of the verb are derived from it. He postulates (1973: 311) that the pronominal ending *-ee* derives from the ending *-i* through the process of lengthening (noted for other forms in this context) accompanied by a change in vowel quality. Newman recognizes that this is synchronically an *ad hoc* rule in Hausa, the reason for this being obviously the fact that there are indeed high long front vowels in word final position, e.g. *yii* 'to do', *'asabàrii* 'type of mat', *sarkii* 'chief', *kudri* 'money', etc. Newman (1979: 183 ff.) derives the pre-pronominal *-ee* again from *-i* but this time not through the vowel lengthening, but rather through the vowel lowering. While the hypothesis which derived *-ee* from *-i* was not supported with any kind of evidence, the lowering hypothesis is supported with another set of hypotheses, again without any evidence in contemporary Hausa.

The first element of this hypothesis assumes existence of a set of object pronouns which in 1, 2 m. and 3 f. had a mid vowel. These pronouns were to cause lowering of the preceding *-i*. Subsequently two things were to happen: the set of pronouns ending in mid vowel was replaced by the set of pronouns at present existing in Hausa, and the marker *-ee* was generalized to be a pre-pronominal marker in all persons. The problem with the basic assumption and the two subsequent events is that there is no synchronic (i.e. some frozen forms, phonological rules, etc.) or diachronic evidence within Hausa for any of the steps, as there was no evidence for the hypothesis presented in 1973. Thus no trace of the mid vowel pronominal set exists in Hausa. There is no explanation or evidence for the alleged spread of the lowering rule since only three of the pronouns were to cause the lowering (the other pronouns had high vowels,

thus not a condition for lowering but rather a condition for raising as is attested in many Chadic languages; cf. Frajzyngier, 1981).

There is, however, an important bit of evidence against Newman's hypothesis, actually against all three postulated steps: the monosyllabic verbs in Hausa which do not have vowel *-ee* when followed by a direct object. Compare the following examples:

<i>yaa bii shi, yaa bii ta</i>	he followed him, her
<i>an cii su</i>	they have been defeated
<i>yaa cii ta</i> (vulgar)	he had sexual intercourse with her
<i>an yi shi</i>	it has been made
<i>ya kai ta</i>	he refused her
<i>taa fi shi</i>	she surpasses him
<i>yaa ji shi</i>	he heard him

If the lowering rule which Newman postulates to have existed were a phonological rule, it should have applied to monosyllabic verbs as well. And yet the monosyllabic verbs when followed by a direct object pronoun have *-ii* rather than postulated *-ee*.

#### 4.2. Synchronic analysis of Hausa

Apart from the fact that synchronically there is no rule converting long */-ii/* into long *-ee*, the hypothesis about *-ee* being derived from *-i* cannot be maintained for yet another reason. As Newman has noted, there is a suffix *-ee* following the causative extension of the verb, *-as*. Compare the following examples from Newman (1973: 312):

Underlying	C (before a nominal object)	B (pronominal object)	A (in isolation)
Underlying 'to pour out'	* <i>zub-as(dà)</i>	* <i>zub-s-ee</i>	* <i>zub-as</i>
Surface	<i>zubad dà</i>	<i>zubshee</i>	<i>zubar</i>
Underlying 'to take out'	* <i>fit-as(dà)</i>	* <i>fit-s-ee</i>	* <i>fit-as</i>
Surface	<i>fitad dà</i>	<i>fishshee</i>	<i>fitar</i>
Underlying 'to inform'	* <i>san-as(dà)</i>	* <i>san-ass-ee</i>	* <i>san-as</i>
Surface	<i>sanad dà</i>	<i>sanashshee</i>	<i>sanar</i>

In the above forms there is not even a high front vowel which could serve as a source for the pre-pronominal *-ee*. Newman maintains, however, that these forms are nevertheless similar to the pre-pronominal forms obtained through the lengthening of the final vowel occurring in other grades, the similarity being the fact that all the forms have long final vowels:

<i>yaa kama yaaroo</i>	but,	<i>yaa kamaa shi</i>
he caught the boy		he caught him
<i>yaa bi sarkii</i>		<i>yaa bii shi</i>
he followed the chief		he followed him

Although indeed the pre-pronominal forms do share the feature length, the facts provided by the causative verbs constitute evidence against any kind of synchronic relationship between the two pre-pronominal forms. By 'synchronic relationship' I mean a situation in which the two forms result from the application of the same rule.



B. Whenever there is a suffix (tense or extension) added to a verb followed by a pronominal suffix, *-ée-* is inserted after the tense suffix and before the pronominal suffix, e.g.

After perfective *-ko*

<i>nì</i>	+ <i>d'ig-</i>	+ <i>kò</i>	+ <i>ée</i>	+ <i>tò</i>	[ <i>nìd'ikkéerò</i> ]	I built for her
1 p.	build	perf.		3 f.		
<i>but</i>						
<i>nì</i>	+ <i>tà</i>	+ <i>d'ig-</i>	+ <i>tò</i>		[ <i>nìràd'iguro</i> ]	I will build for her
		fut.				
<i>nì</i>	+ <i>d'imm-</i>	+ <i>kò</i>	+ <i>ée</i>	+ <i>kò</i>	[ <i>nìd'immèyèéyò</i> ]	I begged you
I	beg	perf.		2 sg. m.		

After completive ventive (*i*)*ná*

<i>wé</i>	+ <i>ná</i>	+ <i>ée</i>	+ <i>tò</i>		[ <i>wénéerò</i> ]	he saw her
see	perf.		3 f.			
<i>nì</i>	+ <i>lòpp-iná</i>	+ <i>ée</i>	+ <i>mà</i>		[ <i>nìlòff'inéemà</i> ]	
I	strike pl.	perf.	2 pl.			

After the non-perfective ventive *-tu*

<i>à mín-</i>	+ <i>tù</i>	+ <i>ée</i>	+ <i>nò</i>	+ <i>té</i>	+ <i>m</i>	[ <i>àmùndéénòrém</i> ]	he didn't give me it/her
neg. give	vent.		1 sg.	3 f.	neg.		
<i>tà píl-</i>	+ <i>tù</i>	+ <i>ée</i>	+ <i>nò</i>	( <i>jàande</i> )		[ <i>tàbilléénò</i> ]	he will buy me yam
fut. buy	vent.		1 sg.	yam			
<i>à wáat</i>	+ <i>tù</i>	+ <i>ée</i>	+ <i>no</i>	( <i>ká jáande</i> )		[ <i>àwáttéénòyà jáandè</i> ]	he didn't bring me yam
neg. come	vent.		1 sg.	with yam			

After continuous *ji*

<i>nì wé</i>	+ <i>ji</i>	+ <i>ée</i>	+ <i>ji</i>	[ <i>nìwìjééjì</i> ]	I usually see you
I see			2 f.		
<i>nì wé</i>	+ <i>ji</i>	+ <i>ée</i>	+ <i>cù</i>	[ <i>nìwìjééjù</i> ]	I usually see them
	pres.		3 pl.		

The last two examples have special importance for the argument that *ée* is an independent morpheme, not derived from some other morpheme or from the verb final vowel, as proposed for Hausa by Newman. As in all other examples of this section, *ée* is added to another suffix to the verb; therefore the possibility that it is a modified verbal ending is ruled out as it was for the causative forms of the verb in Hausa. In the process of derivation it is added after the other suffixes to the verb are added. The evidence for this is not merely the relative order of suffixes but also the fact that in the last two examples the vowel of the stem was raised, as a result of a rule in Pero which requires a high vowel in this environment. Were the suffix to have a non-high vowel, the vowel of the verb would have remained mid, i.e. *e*. Finally, it appears that the insertion of *-ée* occurs after the personal pronouns have been suffixed to the verb. The evidence for this is provided by the fact that the infix is not raised when followed by a suffix containing the high vowel, as in the last two examples. Were the addition of *-ée-* to precede suffixation of *cì* or *cù* we would

have obtained the forms \**n̄iwijiji* and \**n̄iwijiju* respectively. Additional evidence for the hypothesis that the insertion of *-ée* is the last rule is provided by the form *pittego* 'come out'. This form is derived from the verb *pet* 'go out' plus suffix *tu* (vent.) and 2 p.m. ICP suffix *ko*. The first stage of derivation involves the following morphemes only: *pét- + tù + kò*. Vowel raising produces \**pittu + ko*. In this environment the voiceless stop becomes voiced to give *pittugo*. It is only now that *-ée* is inserted to give [*pittégo*]. If the infix were inserted earlier in the derivation, e.g. after the raising rule, there would not have been the rule of stop voicing requiring a high vowel to precede the consonant to be affected.<sup>8</sup>

The function of the morpheme *-ee* in Pero can be established only on the basis of the analysis of three-syllabic verbs. Whenever an indirect object pronoun is added to a verb the final vowel of the verb is deleted and, depending on the phonological properties of both the verb and suffixes, an epenthetic vowel may be inserted. When a direct object pronoun is added, however, the morpheme *-ee* is inserted. Thus the three-syllabic verbs provide the evidence for what appears to have been the function of the morpheme *-ee*, viz. the distinction between the direct and indirect object pronouns.

Lukas (1970-1: 125) indicates that certain verbs (Class A<sub>1</sub> and A<sub>2</sub>) in Bolanci change the final *-u* of the pre-perfective form to *-i* when there is a pronominal suffix. Moreover he indicates that there is a possibility that pre-pronominal forms of other verbs such as ending in *-aa* also derive from the suffixation of *-i*. Compare the following examples from Lukas (op. cit., 126):

Root	Pre-perfective	Pre-nominal	Gloss
<i>dok</i>	<i>doku</i>	' <i>n-dák-i-káa-wó</i>	I have convinced you
<i>dopp-</i>	<i>doppu</i>	' <i>n-dopp-i-káa-wó</i>	I have followed you
<i>da-</i>	<i>daa</i>	' <i>n-dée-káa-wó</i>	I have calmed you
<i>di-</i>	<i>tii</i>	' <i>n-tii-káa-wó</i>	I have deceived you

In discussing the last example Lukas indicates that there may be a suffix *-i* which, however, cannot be isolated because of the vowel *-i* in the root of the verb.

Of particular interest here is the next to last example *da-* 'calm' whose pre-pronominal form is *-dée*. The explanation for the change from *da-* to *dée-* would have to include the vowel *ii*, and the frequently attested in Chadic languages phonological rule by which *a + i → e*. This form rules out an explanation by which vowel *-ii* would have arisen through a rule of epenthesis.

The most important evidence that *-i* in Bolanci, *-ee* in Pero and *-ee* in Hausa represent common retention is provided by the fact that although in Bolanci *-i* does not occur in other than perfective forms of the simple verb it is obligatory with all aspectual-tense forms of the verb with distal (*Entfernungs*) extension (Lukas, 1971: 7). The following examples are from Lukas (1971: 7):

' <i>η-und-i-η-ká-η-gó</i>	I have called you from there
' <i>η-und-aa-k-i-η-ká-η-gó</i>	I will call you from there
' <i>η-und-aa-k-i-η-ká-η-gó</i>	I am trying ( <i>pflege</i> ) to call you from there
' <i>η-und-i-k-kaa-yii</i>	I called you from there

<sup>8</sup> For the phonological rules affecting consonants and vowels in Pero see Frajzyngier (1978 and 1980).

The importance of the presence of *-i* in at least one extension lies in the fact that we have similar distribution of this morpheme in Pero (which requires *-ee* after every extension) and Hausa (which requires *-ee* after causative extension).

The function of *i* in Bolanci is essentially the same as *-ee-* in Pero, viz. to mark the following pronoun as direct rather than an indirect object. The indirect object in Bolanci is marked by *-t*.

4.4. We can attempt to establish the function of the Hausa *-ee*, something that has not been done so far in the literature concerning Hausa. We have seen that in Pero, in one environment, the pre-pronominal vocalic marker indicates that the following pronoun is a direct rather than an indirect object. We have seen that the vocalic pre-pronominal marker in Bolanci has the same function. The Kano dialect of Hausa does not provide any evidence concerning the function of *-ee*, but the Guddiri dialect does. The morpheme *-ee* is inserted only before the direct object pronouns. Before the indirect object pronouns the final vowel of the verb is lengthened. It would appear on the basis of comparative data that the present day marker of indirect object pronoun *ma-* is an innovation and that before it emerged the difference between the two types of pronouns was realized partially through the insertion of *-ee*. This function of *-ee* has been eliminated in most of the contemporary dialects of Hausa; the form, however, still remains.

It has thus been possible not only to show that the pre-pronominal *-ee* must have been a separate morpheme in Hausa, but it has also been shown what was its function in an earlier stage of the language.

There are certain questions that could not be answered at this time. One of them is the question why only grade II forms have the pre-pronominal marker added. A partial answer to this question is linked to the fact that grades IV, VI and VII (and possibly grade III) are all formed by adding a vocalic suffix, and thus there may be some constraints on addition of another vocalic marker.

Another question is the relationship between vowel lengthening and addition of the pre-pronominal marker. At some stage of the language the two must have become allomorphs of the same morpheme, at least in some dialects.

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