

## **Ergative and Nominative-Accusative Features in Mandara**

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### 1. INTRODUCTION<sup>1</sup>

Among the existing studies of Mandara<sup>2</sup>, a Chadic language belonging to the Biu-Mandara branch (Newman 1977), there appears to be a gap in the description of the plural formation of verbs and also in the description of the function of the plural forms. The present paper, which is based on the Mandara dialect spoken in Pulka, is intended to fill this gap. The purpose of the paper, however, is more than just to provide some additional information on this language, but rather to show what can be learned about the history of Mandara and Chadic from the forms and functions of verbal plurals.

The syntax of plural verbs in the Mandara dialect spoken in Pulka and possibly in other dialects exhibits both nominative-accusative and ergative characteristics. While the former are represented by fully productive devices in the form of subject prefixes and infixes, the latter are manifested through traces of various plural markers whose distribution may be quite limited in the contemporary language.

The importance of the data from Mandara lies in the fact that ergative characteristics have been claimed for Proto-Chadic (cf. Frajzyngier in press) and for Afro-Asiatic (cf. Diakonoff 1965). A detailed study of a particular language may contribute to the elucidation of the question as to whether those characteristics are innovations in a particular language or retentions from an earlier, possibly Proto-Chadic system.

### 2. FORMS OF VERBAL PLURALS

#### 2.1. *Two paradigms of the verb*

For the purpose of the present analysis the verbal paradigm in Mandara should be divided into two groups. The first group consist of just one tense which Mirt 1970/71 calls "perfective" and which is formed through reduplication of the verbal stem. The subject pronouns and certain verbal extensions are then infixed between the two parts of the reduplicated verb. We can represent the perfective paradigm in the following formula:

R-Pron-R, where R indicates the root of the verb and Pron indicates the subject pronoun.

The other group consists of all other tense/aspectual forms which are characterized by having the subject pronoun preceding the verb. The form of the imperative will constitute still a third group for it does not have any subject pronouns. Since the plural markers in the two paradigms are different, the following description will reflect the division into the two paradigms.

## 2.2. *Perfective*

Mirt 1970/71:39 postulates that in subject pronouns there occurs a plural suffix *-ər*; *-a-* can not be considered a part of the plural marker for it also occurs in the singular forms.<sup>3</sup>

1 sg.	<i>-an</i>	1 pl excl.	<i>-anər</i>
2 sg	<i>-ak</i>	2 pl	<i>-akwər</i>
3 sg	<i>-aa</i>	3 pl	<i>-ar</i>

The analysis of these pronominal forms indicates that 1st person pronoun is *-n-*, 2nd person is *-k-* and the 3rd person is unmarked. The plural suffix could be either *-ər* or just *-r* if one considers the possibility that shwa is an epenthetic vowel, whose occurrence here could easily be predicted by phonological rules inserting the vowel whenever a non-allowed consonant cluster could emerge. In the present paper I will assume (without providing further evidence) the form of this plural marker to be *-r-*. In the 3rd p. pl. one would therefore have the category plural marked by *-r-* and the category person indicated by absence of any phonological markers.

The same plural marker occurs in the object pronouns which are suffixed to the verb. Compare the forms above with the following object pronouns, also from Mirt 1970/71:

		1 pl incl.	<i>-aməy</i>
1 sg	<i>-əy</i>	1 pl excl.	<i>-anər</i>
2 sg	<i>-ak</i>	2 pl	<i>-akwər</i>
3 sg	<i>-an</i>	3 pl	<i>-atər</i>

The second device to form the plural is the reduplication of the whole verb. Mirt did not describe it for the dialect she studied but it occurs rather frequently in the Pulka dialect. Note that this reduplication precedes in derivation the formation of the perfective form of the verb. The perfective form of the plural verb formed through reduplication can be represented by the formula:

R R Pron R R , where R represents the root of the verb.

The third device to form plural verbs involves the vowel *a* which either is added as a suffix to the verb or replaces the first vowel of the verb. All the devices will be illustrated in the next section.

### 3. FUNCTIONS OF THE PLURAL FORMS OF THE VERB IN PERFECTIVE

#### 3.1. -r-

This suffix occurs in the Pulka dialect whenever the agent of the transitive verb or the subject of an intransitive verb is plural, e.g.

- |     |   |                                |
|-----|---|--------------------------------|
| (1) | <i>pità da-ddè</i><br>P. go                                   | 'Peter went.'                  |
| (2) | <i>pità ntàrà yàkúbú dâ-râ-ddè</i><br>P. with Y. go-PL        | 'Peter and Yakubu went.'       |
| (3) | <i>gwá-xà já-r-jì mátsámà</i><br>elephant-PL killed-PL hunter | 'Elephants killed a hunter.'   |
| (4) | <i>gwé já-jì mátsámà</i><br>elephant killed hunter            | 'An elephant killed a hunter.' |

It is important to note that *-r-* in these examples is not a marker of person but rather a marker of number. Compare the following examples which illustrate the role of the morpheme *-r-*:

- |     |  |                             |
|-----|--|-----------------------------|
| (5) | <i>tsà-kù-r-tsé dâ-kù-r-dè</i><br>get up-2-PL leave-2-PL | 'You (pl) got up and left.' |
| (6) | <i>tsá-r-tsè dâ-r-dè</i>                                 | 'They got up and left.'     |
| (7) | <i>tsá-tsè dâ-ddè</i>                                    | 'He got up and left.'       |

As the examples given above indicate, the infix *-r-* has nominative-accusative characteristics, for its occurrence is determined by either the agent of a transitive verb or the subject of an intransitive verb. It is not affected in any way by the patient of a transitive verb.

3.2. *Reduplication of the verb*

Reduplication to mark plurality differs in several important respects from reduplication to mark the perfective, mentioned earlier in the paper. The most important characteristic of reduplication to mark plurality is the fact that it cannot be applied to every verb while reduplication to form the perfective is a very productive device, and appears to have no constraints as to the type of verb to which it can apply. As has been mentioned earlier, the reduplicated form indicating plurality serves as the base for the formation of the perfective form.

In sentences with intransitive verbs the reduplicated plural stem was given as an alternative form of the non-reduplicated stem. In each case reduplication occurred concurrently with the plural infix *-r-*, e.g.

- (8) *wirà dá-dǎ* 'A man went away.'  
man go-PERF
- (9) a. *wirà-xà dá-r-dǎ* 'Men went away.'  
b. *wirà-xà dáǎdá-rǎ-dáǎdǎ* 'Men went away.'
- (10) *wirà ñàñé* 'A man has run away.'
- (11) *wirà-xà ñàñá-r-ñàñé* 'Men have run away.'

There are also a few examples of the use of reduplication to mark plurality with transitive verbs.

- (12) *wá-wà gígálè* '3sg shot a rat.'  
shoot-PERF rat
- (13) *wá-rí-wà gígálè* 'They shot a rat.'
- (14) *wáwà-wáwà gígálà-xà* '3sg shot rats.'
- (15) *wàwá-r-wàwá gígálà-xà* 'They shot rats.'

As examples (8)-(15) illustrate, reduplication as the marker of plurality in the perfective has ergative characteristics, for it occurs only when the argument to the verb is the plural subject of an intransitive verb, see (9b), (11), or the plural object of a transitive verb, see (14), (15). Reduplication is not affected, however, by the agent of the transitive verb.

## 3.3. Vowel /a/

This vowel marks plurality either when it is infixated after the first consonant of the verb or, alternatively, when it replaces the first vowel of the verb, e.g.

(16) *gúw-à mtsá-mtsà* 'The elephant has died.'  
elephant-DEF die-PERF

(17) *gwá-xà màtsá-r-màtsà* 'The elephants died.'

(The two forms for the elephant are phonological variants of *gwe* 'elephant'.)

(18) *dáugjè sá-msè* 'Daugje came.'  
D. come-PERF

(19) *dáugjè ántàrà mùksá-nè sà-r-á-ms-à* 'Daugje and his wife came.'  
D. with wife-3 come-PL-come-PL

Note that in (19) *-a* is a suffix to the verb rather than an infix. I do not have examples of the use of the vowel *-a* as a plural marker with transitive verbs. The only example which I have and which perhaps should be considered in this place involves suffix *-xa*. Compare the following examples:

(20) *ca-r-cə nəg nafa* 'They cut this tree.'  
cut-PL-PERF DEM tree

(21) *cá- xá-rà- cá- xá náfà-xà bàdámme* 'They cut all trees.'  
cut-PL 1-PL2 -cut-PL 1 tree-PL all

The reason the morpheme spelled *-xa* was taken into consideration in the discussion of *-a* is the fact that *-x-* may be an epenthetic consonant inserted in the environment  $V \_ a$ . I include the examples (20) and (21) above very provisionally since the description of Mandara is not yet available. Note, however, that even if the proposed analysis is later shown to be incorrect, the form of the verbal plural *-xa* is identical with the form of the nominal plural suffix *-xa*. If the proposed analysis is shown to be correct, again the form of the verbal plural will be identical with the form of the nominal plural which then could be analyzed as consisting of the vowel *-a*. Phonological identity of plural markers in verbs and nouns is a very frequent phenomenon in Chadic languages (cf. Frajzyngier 1977, Wolff 1977).

The following facts emerge from the discussion of plural markers *-a* and *-xa*: *-a* marks the plurality of the subject of an intransitive verb and *-xa* marks the plurality of the patient of a transitive verb. Neither of the markers is dependent on the agent of a transitive verb.

#### 4. NON-PERFECTIVE PARADIGM

The non-perfective paradigm includes a number of tense/aspect categories, all of them marked by various forms of subject pronouns which precede the verb. These pronouns indicate either the subject of an intransitive verb or the agent of the transitive verb. The system of subject pronouns is therefore nominative-accusative. The common forms of the plural subject pronouns are as follows:

1	incl. <i>ma-</i>
	excl. <i>kwa-</i>
2	<i>kura-</i>
3	<i>ta-</i>

But once again, as was the case in the perfective paradigm, the verb may be additionally marked for the category plural. Consider first intransitive constructions:

(22) *gwe a dɔ matsa* 'An elephant will die.'  
elephant 3sg FUT die

(23) *gwa-xa ta dɔ matsa* 'Elephants will die.'  
el.-PL 3pl FUT die-PL

As an example of the plural marker in transitive constructions I will provide paradigms of the verb 'to shoot' followed first by a singular object and then by a plural object. The aspect is "progressive". I have obtained it as a translation of the Hausa progressive aspect formed with *-na*.

	'shoot a rat'	'shoot rats'
1sg	<i>ya-wwi gigale</i>	<i>ya-wwu gigala-xa</i>
2sg	<i>ka-wwu gigale</i>	<i>ka-wwa gigala-xa</i>
3sg	<i>a-wwu gigale</i>	<i>a-wwa gigala-xa</i>
1pl. incl.	<i>ma-wwu gigale</i>	<i>ma-wwa gigala-xa</i>
excl.	<i>kwa-wwu gigale</i>	<i>kwa-wwa gigala-xa</i>
2pl	<i>kura-wwu gigale</i>	<i>kura-wwa gigala-xa</i>
3pl	<i>ta-wwu gigale</i>	<i>tra-wwa gigala-xa</i>

The above paradigm indicates that there is a difference in the verbal form depending on whether the object of the verb is singular or plural. Moreover, when the verb is followed by a plural object the former ends in the vowel *-a* in all persons except 1sg when it ends in *-u*. Note, however, that even in the 1 sg. there is a difference in the form of the verb depending on the number of the object. I have no explanation for the different forms of 3 p.pl. subject pronouns.

From the examples given above it is clear that *-a-* forms a part of an ergative system, for it occurs only when the subject of an intransitive or the object of a transitive verb is plural.

## 5. HISTORICAL EXPLANATION

Theoretically, there are only four possibilities for the reconstruction of a Proto-Mandara system.

- (i) Proto-Mandara had only the nominative-accusative system and the contemporary instances of the ergative system constitute an innovation in the language.
- (ii) Proto-Mandara had an ergative system of plural agreement and the existing nominative-accusative paradigms are innovations in the language.
- (iii) Proto-Mandara had both nominative-accusative and ergative systems.
- (iv) Proto-Mandara did not have either of the systems.

Since the discussion of (iv) cannot be substantiated by any available data it will not be pursued in this paper. In the discussion of possibilities (i), (ii) and (iii) I will consider concrete morphological and syntactic devices involved in both systems. Whenever possible, both comparative data and internal reconstruction will be used. The discussion will start with the nominative-accusative system.

### 5.1. */-r/ as the nominative-accusative marker of plurality*

#### 5.1.1. *Internal reconstruction*

This marker is used only in one aspectual form, viz. "perfective". It is, however, also a marker of plurality of direct object pronouns. In fact, direct object pronouns cannot be phonologically distinguished from subject pronouns in the perfective. The only difference between them consists in the syntactic position in which they occur, viz. object pronouns are suffixed to the verb while subject pronouns are infixes. But, interestingly, the subject pronouns are infixes in between the reduplicated parts of the verb, so that in fact even the subject pronouns are suffixed to the verb, and then followed by the verb again. The set of subject prefixes

presented in 4. shows *-r-* in the 2nd p.pl. but not in the first or third person. This may indicate that *-r-* has been lost in other persons or that the second person marker has acquired it. If one accepts the second hypothesis, then internal reconstruction would strongly point to the possibility that the subject infixes have been identical with object suffixes, and subject prefixes have been derived from the set of subject/object suffixes. For the differentiation between the two sets of pronouns in Chadic see Frajzyngier 1982.

### 5.1.2. *Comparative data*

In closely related Cibak subject prefixes have *-r-* as the marker of plurality, e.g. *var* 1 p.pl., *dar* 3 p.pl. . But again, as in Mandara, these forms are identical with the object suffixes.

Thus *-r-* as the plural marker cannot be an innovation in Mandara, and must be a retention from an earlier system. It may even be a reflex of the plural marking morpheme *-n-* (cf. Frajzyngier 1977 and Newman and Ma 1966 for phonological justification for such reconstruction).

## 5.2. *Subject prefixes*

### 5.2.1. *Internal reconstruction*

One of the ways to investigate the history of subject prefixes through the method of internal reconstruction is to find out whether Proto-Mandara had subject prefixes or not. Since there is at least one verbal form, perfective, in which the subject pronouns are, in a way, suffixed to the verb, such an investigation is fully warranted. However, unlike independent pronouns in Chadic languages (cf. Gouffé 1978), subject prefixes do not bear markers that would enable one to reach a conclusion about their diachronic status in the language. The distribution of *-r-* in subject prefixes discussed above could, however, be considered an indication of their relatively recent emergence.

### 5.2.2. *Comparative data*

In many languages from the Biu-Mandara branch the suffixed paradigm is much more extensive than in Mandara. If one accepts the conclusion in Frajzyngier 1983 that the Proto-Chadic word order was VSO, and that the order of pronominal elements was also VSO, then one could conclude that the subject prefixes in Mandara constitute an innovation. Such a conclusion, however, could not be used further in comparative research for it has been obtained through comparative data. (For an earlier discussion of the relationship between subject and object pronouns, mainly in Hausa, see Newman and Schuh 1974).

### 5.3. Reduplication

#### 5.3.1. Internal reconstruction

Reduplication to mark plurality is used extensively in Mandara in adjectives in the predicative function. It can be reduplication either of the whole adjective or only of a part of it. Compare the following examples with the instances of reduplication given earlier in the paper:

- (24) *ǎnnà bǎlsá-nà gyákkè*                    'This horse is large.'  
 DEM horse-DEF large
- (25) *ǎnnà bǎlsá-xà gyák-gyákkè*                'These horses are large.'
- (26) *ágzàrá-ǎjà cúcúkwà*                    'Your children are small.'  
 child-2sg small/PL  
 (*cukwa* 'small' SG)

#### 5.3.2. Comparative data

Reduplication is one of the most widespread devices for marking plurality in Chadic and in Afroasiatic languages (cf. Frajzyngier 1977, 1979). Moreover, whenever it marks plurality in other languages it is most often plurality of action, plurality of the subject of an intransitive verb, the object of a transitive verb but very seldom plurality of agent, i.e. of the subject of a transitive verb.

Thus, both internal reconstruction and comparative data indicate that the form and the function of reduplication constitute a retention in Mandara rather than an innovation.

### 5.4. Vowel /a/

#### 5.4.1. Internal reconstruction

The morpheme *a* occurs as the marker of the plurality of a subject of an intransitive verb in the perfective paradigm. It occurs as the marker of the plurality of both the subject of an intransitive and the object of a transitive verb in the non-perfective paradigms. If further study shows a connection between *-a* and *-xa* then there is also a related morpheme marking the plural in the nominal system. But even if such a connection is not found to be valid, nevertheless the distribution of *a* as either suffix or infix indicates that it is not an innovation but rather a retention from a once much more widespread system. Fluckiger states (p.c.) that *a* also marks plurality of action.

#### 5.4.2. *Comparative data*

The morpheme *a* is another very widespread device to mark plurality in Chadic. It occurs as an infix in three of the four branches of Chadic. It indicates plurality of both nouns and verbs. There is no doubt that in Mandara it constitutes a retention from an earlier system.

### 6. CONCLUSIONS

The present study has shown that two plural markers in Mandara, reduplication and infixing or suffixing of *a*, have ergative characteristics. Moreover, the study has shown that both markers constitute a retention from an earlier system. Comparative evidence indicates that these two markers were already present in Proto-Chadic. Data from Mandara provide an argument for the function of these two markers in Proto-Chadic. Unless Mandara has innovated in the function of the two markers, a possibility for which there is no evidence, then their present function, as a retention from an earlier system, provides the evidence that the function of reduplication and *-a-* in Proto-Chadic was to indicate plurality of the subject of an intransitive verb, of the object of a transitive verb, and most certainly just plurality of action (although the evidence for this was not provided in this paper). It is also very significant that there is absolutely no connection in Mandara between the occurrence of the two devices and the plurality of the agent of a transitive verb. The data in Mandara thus provide important evidence for the presence of ergative characteristics in Proto-Chadic.

An interesting fact about Mandara is the separation of the two systems by means of different grammatical devices. Thus the nominative-accusative system is realized through subject prefixes and infixes while the ergative system is realized through reduplication and *-a-*. It appears that in most Chadic languages such a separation of function does not exist. Whether this characteristic is an innovation in Mandara or a retention from an earlier system remains to be investigated.

### NOTES

1. Most of the data in the present paper were gathered during the Summer of 1981 in Maiduguri, Nigeria, as part of a larger project entitled "Reconstruction of the Syntax of Simple Sentences in Proto-Chadic". The work on the project was supported by a grant from the National Endowment for the Humanities. The trip to Nigeria was also supported by a grant from the Council on Research and Creative Work, University of Colorado. My language assistant was Mr. Philip N. Bugar, of Pulka, born in 1951. I would like to thank him for the patience and enthusiasm with which he worked. I would also like to thank Cheryl Fluckiger for answering my questionnaire and for making available some of the "Mandara Pedagogical Grammar Notes".

I would also like to thank Paul Newman for many useful suggestions, and in particular for drawing my attention to the possibility that morpheme *-t-* may be related to *-n-*.

2. The following works on Mandara were consulted: Mirt 1969, 1970/71, Eguchi 1969, Whaley and Fluckiger 1980.

3. Since no phonological analysis of Mandara is available yet, the data are presented in a broad phonetic transcription. The following are the only special symbols I use:

$\partial$	-	high, back, unrounded vowel
$x$	-	velar, voiceless fricative
$\beta$ , $d'$	-	glottalized labial and alveolar stops
$ts$ , $dz$	-	voiceless and voiced alveolar affricates
$c$ , $j$	-	voiceless and voiced palatal affricates

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