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Grammatical meaning of determiners in Chadic. Common retentions or common innovations?

Abstract

The paper presents the results of diachronic analysis of independent grammatical morphemes which function in the grammatical systems of Chadic languages. The following markers are being considered: genitive-linking morpheme, subject and object markers, copula, focus marker. Etymologically, the markers are traced back to Chadic (and Afroasiatic) system of determiners identified by the three phonological elements, namely *n, *t, and *k which have their vestiges in contemporary systems. It is claimed that what is a retention on phonological ground, contributes to innovation processes on the grammatical level.

Keywords

reconstruction, determiners, grammatical morphemes, grammaticalization, Chadic.

Introduction

After decades of intensive studies (significantly marked by works such as Greenberg 1963; Newman, Ma 1966; Newman 1980), the classification of Chadic languages within the Afroasiatic group and their internal subdivision seem to be well established. The reconstruction of Chadic (Newman 1977; Jungraithmayr, Ibriszimow 1994) also led to identifying the lexical units of the protolanguage, among which there were also roots of common Afroasiatic origin. Studies from the historical perspective of particular Chadic languages have confirmed traces of reconstructed forms in contemporary structures. However, the development of Chadic languages is far from having been clarified in all its aspects, especially as the diachronic perspective of linear development overlaps with some common areal features.

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The paper presents the results of a comparative analysis of independent grammatical morphemes which function in the grammatical systems of Chadic languages. Regarding the phonological shape of grammatical markers, the stem consonant in particular, the grammatical morphemes are viewed as vestiges of the demonstratives and other reference markers that are common to Chadic and even to Afroasiatic. The analysis shows how the deictic system is transmitted to coding grammatical functions and which processes are responsible for the synchronic variation of Chadic grammars. The comparison of the vestiges of common roots in contemporary languages also demonstrates the methodological aspects of reconstruction based on correlation between form and function.

A large-scale analysis of syntactic markers in Chadic based on 15 grammatical systems was presented in an earlier publication (Pawlak 1994). In the present paper, the focus was placed on the evolution of the determining system, while some other data based on subsequent descriptions have also been added.

1. Typology of Chadic determiners based on phonological features

Chadic is a branch (language family) in the Afroasiatic phylum. Some 150 languages[1] are divided into four major branches (West, Biu-Mandara, East, and Masa). The widely known Chadic language, Hausa, is used as a first language by as many as 25 million speakers. Other Chadic languages have smaller numbers of users, estimated at a few thousand to a few hundred speakers per language. Sociolinguistic diversification creates an opportunity for drawing historical inferences from the present-day forms which have preserved earlier stages of their transformation.

Descriptions of grammar are available for more than half of the Chadic languages. Among the most common elements of their grammatical systems are pronouns and determiners,[2] which are used in syntactically differentiated structures. Determiners are a key notion applied to describe the structures of African languages,[3] but they do not form a morphosyntactic class of their own, as the term is used to refer to different constituent structures. The most representative category of determiners would be demonstratives that might belong to the basic vocabulary of every language (Diessel 2006: 464). They are used to mark definiteness (*the*) or for reference (*this, that*). They are also described as place deixis represented by the equivalents of *here*, *there*.

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[1] Along with the development of research on Chadic, the number of Chadic languages successively changes. According to the latest index available (Newman 2013) "more than 400 names have been found that refer to the 170 or so Chadic languages that we know of".

[2] They are in fact "definite determiners" that mark referentiality (having a certain referent) and definiteness (known to both speaker and hearer), cf. (Schuh 1983: 202).

[3] On the possible inventory of 'determination' patterns, see (Heine 1980).

In comparative works on Chadic, the common inventory of the demonstrative system is recognized at a very old stage. In present-day systems, the morphemes attached to the nouns while marking definiteness or reference show some stable phonological elements that are supposed to be the historical roots of old markers. Among them, the oppositional pair *n and *t reveals a significant regularity in their functional usage, e.g. (Schuh 1983: 159):

– Gude: raha-**na** 'this axe'   Gude: raha-**ta** 'that axe'
– Bade: kwàm-**âaní** 'that bull'   Bade: tlà-**tíiwu** 'that cow'
– Kera: hə̀lgə́-**ŋ** 'the woman'   Mukulu: 'eròwo **'ettiyo** 'this woman'

The examples show that *n and *t are used to mark a distal/proximal relation (as in Gude and Bade), but in other languages some other meanings are also possible (for example, related to visibility).[4] The grammatical function of *n and *t is confirmed by comparative Afroasiatic evidence in which the two consonants represent demonstratives and their common pattern of gender-number agreement (Schuh 1983: 157). These functions are also recognized in Proto-Chadic forms in which the -n- element is used for the masculine singular and possibly the plural demonstrative, whereas the -t- element (and its allophonic variants -c-, -r-) is a feminine singular demonstrative (Schuh 1983: 158). Demonstratives based on these elements occur throughout Chadic.

Out of -n- and -t- some other phonological shapes of demonstratives and other reference markers also appear in Chadic languages; these are forms based on the phonological elements -k-, -ɗ-, or -i-, as in the following examples:[5]

– Margi: sal **kə** 'this man'
– Daffo: ham (pl.) **kyàni** 'this (these) water'
– Ngizim: gùzə̀p-**gú** 'the slave'
– Ga'anda: naf-**ɗa** 'the man'; naf-**ɗi** 'this man'
– Musgu: ɗîf-**ɗa** 'the man'
– Hausa: karàs **ɗi**-n 'the carrot(s)'
– Kanakuru: gam-**îi** 'the ram'
– Zaar: gɨmaan-**i** 'the husband'
– Dangaleat: àk-**i** 'the fire'

The use of these markers in the function of determiners is also reconstructed for Proto-Chadic. They are gender neutral, thus *k is a marker of previous

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[4] For Hausa, cf. (Abdoulaye 2008).
[5] Examples extracted from (Schuh 1983: 159–160).

reference, whereas *ɗ and *i are markers of definiteness (Schuh 1983: 158). Their distribution is limited to particular areas and they are not found in the languages of all branches.

2. The variation of forms in different syntactic contexts

The phonological form of the determiners is easily identified in some other grammatical morphemes where they are used in specific syntactic contexts. Morphosyntactic behavior of determiners is linked with their categorial status. In Hausa, various types of markers representing different grammatical functions preserve the n/t binary opposition. When attached to the masculine noun *dōkì̀* 'horse' and feminine noun *gōdîyā* 'mare', these markers are differentiated in the following way:

– deictic reference   dōkìn **n**ân 'this horse'   gōdîyar **c**àn 'that mare'
– definite article   dōkì-**n** 'the (known)horse'   gōdîyâ-**r** 'the (known) mare'
– genitive marker   dōkì-**n** sarkī 'emir's horse'   gōdîya-**r** sarkī 'emir's mare'
                 dōkì̀ **n**a sarkī 'emir's horse'   gōdîyā **t**a sarkī 'emir's mare'[6]
– copula   dōkì̀ **n**ē 'it's a horse'   gōdîyā **c**ḕ 'it's a mare'

The determining system of another Chadic language, Goemai, is manifested in demonstratives containing -n- and a locative anaphor which contains ɗ',[7] whereas in the definite article the consonant -k- occurs, rather than other consonantal elements of the inherited determiners. No other grammatical markers have developed on this ground.

These sets of markers are manifested in the following examples:

– demonstrative   gurum n**n**oe 'this person'
– locative anaphor   goe-t'o **d'**i 'lying there'
– definite article   la ho**k** 'the child', kaam ho**k** 'the festival'

It should be added that the deictic roots -*nnoe* (for proximal meanings) and -*nang* for distal meanings are used in more complex structures representing demonstratives, among which those containing the existential classifier

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[6] The variation between the short (-n/-r) or long variant (na/ta) of the genitive linker has syntactic, phonological or semantic motivations.

[7] ɗ' is an orthographic variant of ɗ.

goend'ennoe 'this existing one' and *goend'enang* 'that existing one' are the most common (Hellwig 2003: 273).[8]

As the data indicate, syntactic devices in which a phonological element of the original demonstratives has been preserved vary in form, structure and function. The present-day markers are attached to the stem in the form of either a bound morpheme or an independent one. Regarded as vestiges of periphrastic constructions in which they were used in the function of determiners, they represent different stages of structural development in which lexical items became grammatical morphemes.

3. The evolution of determiners and their grammaticalization patterns

The grammatical items discussed in this paper were extracted from various descriptions of contemporary Chadic languages under the criterion that they can be traced back to demonstratives in particular constructions.[9] Three elements of the deictic system, common to Chadic, namely *n, *t, *k, are subject of inter-language comparison in connection with their grammatical function. Below is the evidence in which several paths of transformation have been distinguished.

3.1. The evolution of the *n – masculine singular and plural demonstrative (*this*, *that*, *these*, *those*)

The consonantal element -n- (or its phonological variant -m-) is identified in the following grammatical markers of contemporary systems:

– subject marker

In several Chadic languages, there is a special morpheme identified as the subject marker. Its main function is to support the identification of the subject, which is placed in the postverbal position,[10] either nominal or pronominal, e.g.:

Gude: agi ka-nǝ **nǝ** Musa faara '<u>Musa</u> is throwing a stone'
/CONT-throw-Subj-Musa-stone/

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[8] It is assumed that at earlier stages Goemai used a demonstrative based on the –n- phonological element only and the tone was used to distinguish the distal proximal opposition (*nòè* 'proximal', *nóé* 'distal) which still appear in variant forms (Hellwig 2003: 274).

[9] Selection of the data follows structural implications and includes the presence of the consonantal element, which is manifested apparently or (as in Hausa) as its regular phonological correspondence.

[10] In some languages the subject marker is connected with focused subject, but in some others (as in Pero) it may also be used in non-focused constructions (Frajzyngier 1989: 158).

Pero: a.   kpómmú-kò **nín** cínù 'they met'
                /meet-COMPL-Subj-they/

         b.   yí-k-kò **nín** cíinà-ì 'the food is cooked'
                /make-COMPL Subj- food-Def/

–   (masculine or plural) genitive marker (i.e. a linker in a genitive construction)

In Gidar, the determiner series built on the marker *n* is involved in coding proximate distance (Frajzyngier 2008: 321). The -n- marker is also represented in the genitive particle which does not mark gender distinction, e.g.:

Gidar: a.   mə́lìy **ná** wàlánglà 'the chief of the village'
                  /chief Gen village/

          b.   ɗǎk **ná** káɗà 'a Gidar woman'
                  /woman Gen Kada/

In Kanakuru, it has the form *ma* when the head noun is masculine, e.g.:

Kanakuru: gam **ma** tamnoi 'the woman's ram'
             /ram Gen woman/

Kanakuru also has a direct associative construction which codes an inalienable possession. Therefore, *ɓili ma lowoi* 'the boy's horn (i.e. in his possession)', whereas *ɓil kimne* 'a bushcow's horn (i.e. growing from his head)'.[11]

The linker may be attached to the pronominal constituent of a genitive construction, i.e.:

Gera: nòndà **mí**-ní 'my mother'   Kera: kul **ni**-n 'my hut'
          /mother Gen-I/   /hut Gen-I/

The relation between the linker and demonstratives is clearly manifested in those languages which have an exponent of genitive construction which is the same as the demonstrative in this language. This is the case of Tangale, e.g.:

Tangale: a.   mu **mo** mana 'householder' (lit. 'the man of the house')
                   /man this.Gen house/

            b.   wa **mo** ndida 'bed' (lit. 'thing of sleeping')
                   /thing this.Gen sleeping/

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[11] In Kanakuru, there are also some lexical motivations for the use of direct or linked constructions, e.g. *miyo Basha* 'Basha's co-wife', but *lo ma Basha* 'Basha's son' (Newman 1974: 88).

– copula (with masculine singular and plural agreement)

In Gidar, the copula built on an -n- marker has several variants which include differentiation between masculine singular and plural forms. In Hausa, the copula *ne* is used in both contexts, e.g.:

Gidar: a. məkʒá kə̀ **nàní** 'you are a blacksmith'
  /blacksmith 2Sg Cop/

  b. mə̀-ʒèŋ-ɗě kə̀ **nànə́-n**í 'you are doctors'
  /NOM-doctor-PL 2 Cop-PL/

Hausa: a. gidā **nè̀** 'it is a house'   gidə̀jē **nè̀** 'these are houses'
  /house Cop/

  b. gidā bàbbā **nè̀** 'the house is big'; gidə̀jē mânyā **nè̀** 'the houses are big'
  /house big Cop/   /houses big.Pl Cop/

– focus marker

The separate identification of a particular element in the sentence has a morphological marking in some Chadic languages. The constituent being in focus is accompanied by markers that might be the same as those identified for other functions (a subject marker, a copula). Focus is connected with some structural modifications which include word order and adding copula main clauses. Below are examples of languages in which the focus marker is based on the determiner *n. If the subject is focused on, the marker usually precedes it. In Ngizim, it is attached to the constituent preceding subject which is in focus, e.g.:

Ngizim: təkə aaku-**n** bədlamu 'the hyena killed the goat'
      /kill.PERF goat-Foc hyena/
  cf. bədlamu təkə aaku 'the hyena killed the goat' (without focus)

Hausa: yārə̀ **nē** ya zō 'it is the boy who came'
      /boy Cop/Foc 3/Rel.PERF come/
  cf. yārə̀ yā zō 'the boy came'

3.2. The evolution of the *t – feminine singular demonstrative (*this*, *that*)

The consonantal element -t-, or its phonological variants -c, -r, occur in the following grammatical markers:

–   (feminine) genitive marker (i.e. a linker in a genitive construction)

Kanakuru: tiŋa **ra** lowoi 'the boy's ewe'
             /ewe Gen boy/

Buduma: kóte-**r** mai 'younger sister of the king'
             /younger-sister Gen king/

Hausa: gōnā **ta** sarkī 'emir's farm'
             /farm Gen emir/

Gera: bàn **cì**-ní 'my town'
             /town Gen-I/

–   copula (with feminine singular agreement)

Gidar: mə̀-zángí   **tə́**   'she is a teacher'
          /NOM-teach Cop.F/

Hausa: a.   àkwiyā̀ cē '(it) is a goat'
               /goat Cop.F/

          b.   Hàlīmà mālàmā cè̀ 'Halima is a teacher'
               /Halima teacher.F Cop.F/

–   direct object marker

Gude: kə ngirə Musa **tə** ngyala 'Musa picked up the knife'
             /COMPL pick-up Musa DO knife/

Laamang: dáxtáatə-l (**tə**) márákw 'one will take the woman'
            /take/FUT-3Sg DO woman/

Fyer: a.   mi yal **ti** ɓarà 'he called the boy'
               /3Sg/IMPF call DO boy/

          b.   máà yál-**t**-is 'he called him'
               /3Sg/PERF call DO 3Sg/

3.3. The evolution of the *k pronominal marker of previous reference

Phonological retention of the -k- marker is confirmed in the following grammatical morphemes of present-day structures:

–   genitive marker (i.e. a linker in a genitive construction)

Kera: hàrgá **kə́** həlgə́ŋ 'the goat of the woman'
/goat Gen woman/

Bidiya: piso **ka**-y men 'the horse of the chief'
/horse-this.Gen-his chief/

–   copula

Bidiya: ŋanda **'ákà** 'ulnyóok 'he is beautiful'
/he Cop/Sg.m beautiful/

–   direct object marker

Tera: Ali masa **kia** koro 'Ali bought a donkey'
/Ali buy/PERF DO donkey/

Gude: kə nee Musa **ka** faara 'Musa has seen a stone'
/PERF see Musa DO stone

4. Chadic determiners in grammatical functions

The three consonantal elements, when combined with the markers of grammatical functions in which they are used, are present in the following languages:

	-n-	-t-	-k-
SUBJ	Gude Pero		
DO		Laamang Fyer Gude Musgu	Kwang Tera Gude
Gen (-Gender)	Pero Buduma Kera Gidar	Gude	Kera

302   *Nina Pawlak*

	-n-	-t-	-k-
Gen (+Gender)	Hausa Musgu	Hausa Bidiya	Bidiya
COP	Hausa Gidar	Hausa Gidar	Bidiya Tera
Foc	Ngizim Pero Gude Logone		

As can be observed in the above chart, the representations of consonantal markers refer to three categories:
–   Gender distinction
–   Subject-object opposition
–   Focus marking.

Tracing back the grammatical markers to demonstratives, it becomes clear that the *n/*t distinction, which is originally involved in coding proximal/distal opposition, is also involved in marking gender (the masculine/plural and feminine in singular, respectively). The phonologically based opposition also confirms its significance in the copula, but its binary character is also revealed in marking the syntactic function of the subject and the object. e.g.:

Gude: tə bwaya nə Musa aka bələ-nə əndzii 'Musa will kill the leopard now'
        /Obj leopard Subj Musa POT kill-VN now/

There are also some specific functions of particular consonants which are different from their 'prototypic' meanings. In Pero, Buduma, Kera, and Gidar genitive morphemes containing -n- are not gender sensitive, whereas in Gude it is -t- which takes on that function. Morphemes involving *k may also occur in structures which do not mark gender, whereas focus is linked with the *n demonstrative (of proximal reference).

Summary

The diachronic inferences drawn from present-day structures manifest the evolution of grammar. The data show that the demonstrative system common to Chadic underwent a major reorganization in terms of its form and function. The three consonantal elements – *n, *t, and *k – that are traced back to the determining system of Chadic (probably also to Afroasiatic) were preserved in grammatical morphemes of different types. However,

the shared features that appear to be related are diffusional. The determiners carrying established lexical meanings have various grammatical functions in contemporary systems. They represent different structures which code grammatical information through meaningful items. Their grammaticalization path is determined by the syntactic context in which they occur and their stages of development are different.

Abbreviations

1,2,…	first person, second person, …
CONT	continuative aspect
COMPL	completive aspect
Cop	copula
Def	definiteness
DO	direct object
F	feminine
Foc	focus
FUT	future
Gen	genitive
IMPF	imperfective
NOM	nominalizer
Obj	object
PERF	perfective
POT	potential
Pl	plural
Rel	relative
Sg	singular
Subj	subject
VN	verbal noun

References

Abdoulaye, Mohamane L. 2008. Two Systems in Hausa Deixis, *Linguistic online*, 36 (4), http://www.linguistik-online.de/36_08/abdoulaye.html

Diessel, Holger. 2006. Demonstratives, joint attention, and the emergence of grammar. *Cognitive Linguistics* 17, 463–489.

Heine, Bernd. 1980. Determination in some East African languages, [in] Günter Brettschneider and Christian Lehman (eds). Wege zur Universalien Forschungen, Sonderdruck (Tübingen Beiträge zur Linguistik, Bd. 145), 180–186.

Hellwig, Birgit. 2003. *The grammatical coding of postural semantics in Goemai (a West Chadic language of Nigeria)*. PhD Thesis, Radboud University Nijmegen, Nijmegen.

Jungraithmayr, Herrmann and Ibriszimow, Dymitr. 1994. *Chadic lexical roots*, vol. I–II, Berlin: Dietrich Raimer Verlag.

Newman, Paul. 1977. "Chadic classification and reconstructions", *Afroasiatic Linguistics* 5, 1, 1–42.

Newman, Paul. 1980. *The Classification of Chadic within Afroasiatic*. Leiden: Universitaire Pers Leiden.

Newman, Paul. 2013. *The Chadic Language Family: Classification and Name Index*. Mega-Chad Research Network: Electronic Publication, 11 pp. https://megatchad.wordpress.com/

Newman, Paul and Ma, Roxana. 1966. "Comparative Chadic: phonology and lexicon", *Journal of African Languages*, 5, 218–251.

Pawlak, Nina. 1994. *Syntactic Markers in Chadic: A Study on Development of Grammatical Morphems*, Instytut Orientalistyczny UW.

Schuh, Russell G. 1983. The Evolution of Determiners in Chadic, [in] *Studies in Chadic and Afroasiatic Linguistics*, ed. by Ekkehard Wolff and Hilke Meyer-Bahlburg, Hamburg: Buske Verlag, 157–210.

Appendix

Sample languages and their sources (if not mentioned otherwise)

Gera   Schuh, R. 1978. *Bole-Tangale Languages of the Bauchi Area (Northern Nigeria)*, Berlin: Reimer)

Gude   Hoskinson, J.T. 1983. *A Grammar and Dictionary of the Gude Language*, Ph.D. dissertation, Ohio State University

Bidiya   Alio, Kh. 1986. *Essai de description de la langue bidiya du Guéra (Tchad)*, Berlin: Reimer

Buduma   Lukas, J. 1939. *Die Sprache der Buduma*, Leipzig: Brockhaus

Fyer   Jungraithmayr, H. 1970. *Die Ron Sprachen. Tschadohamitische Studien in Nordnigerien*, Glückstadt: J.J. Augustin

Goemai   Hellwig, B. 2003. *The grammatical coding of postural semantics in Goemai (A West Chadic language of Nigeria)*, Wageningen: Ponsen & Looijen 2003)

Gidar   Frajzyngier, Z.2008. *A grammar of Gidar*, Frankfurt am Main: Peter Lang)

Kera   Ebert, K. 1979. Sprache und Tradition der Kera (Tschad), Teil III – Grammatik, Berlin: Reimer

Laamang   Wolff, E. 1983. A Grammar of the Lamang Language, Glückstadt: J.J. Augustin

Hausa   Newman, P. 2000. *The Hausa Language. An Encyclopedic Reference Grammar*, New Haven & London: Yale University Press

Kanakuru   Newman, P. 1974. *The Kanakuru Language*, Leeds: Institute of Modern English Language Studies

Pero   Frajzyngier, Z. 1989. *A Grammar of Pero*, Berlin: Reimer

Tangale   Jungraithmayr, Z. 1956. *Untersuchungen zur Sprache der Tangale in Nordostnigerien*, Ph.D. dissertation, Hamburg University