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Morphological Coding of Verb-Object Agreement in African Languages

Abstract

The aim of the paper is to demonstrate the structures of some African languages that mark agreement between the verb and the object. The means of coding agreement are rich and differentiated and include pronominal affixes on verbs for objects but not for subjects, verb endings and tonal contrast as well as some other modifications of verb when used with object. Morphological devices tend to code for the grammatical properties of the object, such as gender and number, or – in languages with class systems – the noun class attributed to the object. Some other languages mark the agreement with either nominal or pronominal form of the object. The languages may also denote a semantic distinction between ‘single’ and ‘many’. With reference to marking properties of semantic Patient rather than syntactic object, it is postulated to relate the presented system of marking verb-object agreement as traces of an ergative concord system in African languages.

Keywords: linguistics, African languages, morphology, grammar

Introduction

In typological picture of world’s languages, African languages are distinguished mainly for their unique sound systems and morphophonological processes involving tones.¹ Linguistic descriptions of particular languages present these features as inter-systemic devices, but also in their cross-linguistic perspective. Less attention has been paid to syntactic patterns that organize the structure of the sentence and to their coding means that express the relations between the parts of the sentence. The paper deals with

¹ Cf. Heine, Nurse 2000; Clements, Riailand 2008.

rules of clause composition that have a form of cross-reference between different parts of a sentence and affect verb. Termed as agreement, in many languages they are related to marking subject with the verb. In languages where the verb is inflected, subject-verb agreement is manifested by verb affixes indicating the person, gender and/or number of the subject. European languages commonly mark agreement of this kind with verb. English shows distinctive marking only in the third person singular, present tense form of verbs. The agreement is marked by adding -s.

English: The student copies the notes
The students copy the notes

Polish has some distinctive agreement markers also in the other persons and in other tenses.

Polish: Wiatr powalił drzewo/drzewa
'The wind struck down the tree(s)'

Wichura powaliła drzewo/drzewa
'The gale struck down the tree(s)'

Wichury uszkodziły most/mosty
'The gales damaged the bridge(s)'

Hungarian, another European language, has a "double agreement-marking".² Unlike English, the markers in Hungarian fully distinguish all persons and all numbers in all tenses to mark agreement between the subject and the verb. Moreover, the same set of verbal suffixes indicate definiteness of the object. In this language, verbal suffixes are used to mark agreement with two different noun phrases.³

The systemic patterns are often violated as some verbs are not regular in marking agreement and are not regular in making reference of this agreement. In English, the verb 'to be' which varies according to person and number of its primary argument (i.e. subject), in some structures may be ambiguously interpreted in terms of agreement with the primary or the secondary argument, e.g.: *five plus five is/are ten*. In French, the reference to object is determined by the structure of a sentence. When verbs are conjugated with *avoir* in the compound tenses, they do not agree with their subjects. *Avoir* verbs in these predicates require agreement with their direct objects or direct object pronouns but only when these precede the verb, therefore *Il a vu Marie / Il l'a vue* 'He saw Marie / He saw her'.

² I would like to thank Prof. Jerzy Bańcerowski for his valuable comments and extension of my previous knowledge related to Hungarian agreement-marking.

³ MacWhinney, Pléh 1997: 68.

The above examples indicate that similarly to the relation with the subject, verbs mark the agreement with the object and indicate its grammatical features such as person, gender and number. However, the typological overview of structures with verb-object agreement reveals the asymmetry in coding the features of subjects and objects. According to Hopper and Thompson⁴, languages that mark subject-verb agreement tend to code for the person and number of the subject, whereas languages that mark object-verb agreement tend to code for the definiteness and animacy of the object.

The aim of the present paper is to demonstrate the structures of some African languages that mark agreement between the verb and the object. They will be analyzed in terms of their coding features.

1. Grammatical correlation between verb and object in African languages

In many African languages, the modifications of verb are related to verb complements. Among the main devices there are verb suffixes known as verbal extensions, which change the meaning of the verb, create causatives, benefactives, reciprocals and the like. They correspond to the object and code the information about their function. In Swahili, the extension (morpheme) *-ia* of the applicative form indicates that the action is applied on behalf of, towards or with regard to some objects, e.g.:⁵

- Swahili:
- a. Mama a-li-pika chakula
/mother 3Sg-PAST-cook food/
'Mother cooked food'
 - b. Mama a-li-pik-ia-a watoto chakula
/mother 3Sg-PAST-cook-Ext-Infl children food/
'Mother cooked food **for** children'

Similarly in Fulfulde, the information about the grammatical function of the following object (case) is placed with verb, e.g.:⁶

- | | | |
|-----------|---|---|
| Fulfulde: | a. 'o-wolw-ii
/3Sg-speak-PAST/
'he spoke' | cf. 'o-wolw- an -ii moodibbo
/3Sg-speak-Ext-PAST teacher/
'he spoke to the teacher' |
| | b. 'o-ta'y-ii kusel
/3Sg cut-PAST meat/
'he cut (the) meat' | cf. 'o-ta'y- ir -ii kusel lafi
/3Sg-cut-Ext-PAST meat knife/
'he cut (the) meat with a knife' |

⁴ Hopper, Thompson 1984.

⁵ More explanations available in Lodhi 2002: 4-26 and in Pawlak 2010.

⁶ Following Arnott 1970: 338, 353.

These morphemes that mark correlation between verb and object are not considered as being instances of agreement. They are classified among verbal derivation that changes the valency of verb. But apart from verbal modifications of this kind, there are also some other morphological changes strictly related to the object and its grammatical categories. They will be presented here as a manifestation of an agreement between the verb and its object.

Particular examples illustrating this feature represent languages of three different language families, namely Chadic (being a part of the Afro-Asiatic phylum), Nilo-Saharan and Niger-Congo. It will be shown that the agreement manifests itself in a number of different structures in which syntactic information about the categories of an object is shifted to the verb. Following the data, verbs agree with their objects in grammatical features (nominal class, person, number), but also in some discourse features (definiteness, presence/absence of an object) that also include animacy and some other semantic attributes of the object.

2. The functions of concordance system in Swahili

The concordance (congruence) in Swahili is based on class system that marks agreement between the clause constituents. It operates both within nominal and verbal phrase. As for verbal marking, there are sets of verbal morphemes that are referred to the subject and the ones referred to the object. In the latter case, transitive verbs have a pronominal recapitulative marker in a verbal complex, even though its nominal equivalent is also present in the sentence, e.g.⁷:

- Swahili: a. Wazee walimpenda **mtoto** (class 1)
 /parents 3Pl-PAST-Obj-love child/
 ‘The parents loved (the) child’
- b. Mtoto alikinunua **kitabu** (class 7)
 /child 3Sg-PAST-Obj-buy book/
 ‘The child bought the book’

The form of the pronominal marker in Swahili has a reference to the class to which the noun object is attributed⁸ but its use of this marker within a verbal complex is determined by many factors, including semantic features of the object. The justification for the use of an agreement marker *-m-* in the first example is found in the fact that the object (*mtoto* ‘child’) is animate⁹. With this feature, the marker is obligatory. In

⁷ Ohly, Kraska-Szlenk, Podobińska 1998: 78.

⁸ The system of classes allows coding for number (plural or singular).

⁹ The noun *mtoto* represents the class denoting human beings, therefore the feature +Human is more adequate in this case.

the second example, *-ki-* marks the definiteness of the object (*kitabu* ‘book’), therefore the clause *Mtoto alinunua kitabu* ‘the child bought a book’ is also acceptable. Object marking in Swahili is to some extent defined as “optional” which also means a big variety of considerations that determine the choice of either a phrase with a marker or without it.¹⁰ Investigations into object marking have noticed many conditions for object marking in Swahili, such as stress on the object, its specificity, distinctiveness, and the discourse-oriented factors that code for the status of information accessible for hearer.¹¹

3. Other strategies of incorporating object marker into the verb

3.1. Pronominal marker of the object

In some African languages segmental markers are used to indicate that the verbal complement is an object. In Chadic languages, such a marker is in fact a pronoun that carries the grammatical categories of object (gender, number).¹² For example in Musgu, object morpheme is indicated as a pronoun that copies the following object. The feature is interpreted as a structural borrowing from Niger-Congo, e.g.:¹³

- Musgu: a. à yim-tí àdòliyo ‘he caught (her) the hyena’
/he catch.PAST-her hyena/
b. mù təl-dí Mònjòkáy ‘I saw (them) Musgu people’
/I see.PAST-them Musgu/

Some other Chadic languages share the feature of pronoun copying the object. The pronoun may also indicate the indirect object, like in Daffo¹⁴ and Gude¹⁵:

- Daffo: à gofís ref Nyòronji ‘he showed (them) the Nyorong masks to the women’
/3sg.PAST show them women Nyorong/
Gude: kə ka-nà-paa Musa buura ‘Musa set down the bag for him’
/COMPL set-him-down Musa bag/

¹⁰ For example, proper nouns have pronominal marking, even if they are inanimate.

¹¹ Seidl, Dimitriadis 1997: 385.

¹² In Chadic (similarly to other Afroasiatic) gender distinction (masculine/feminine) is relevant only for singular.

¹³ Meyer-Bahlburg 1972: 174.

¹⁴ Seibert 1998: 96.

¹⁵ Hoskinson 1983: 110.

The justification for the use of a marker that corresponds to the object is found in marking focus. In Kru of the Niger-Congo, here illustrated by the Wobé language, there is a vocalic marker (-ε) preceding the object, e.g.:¹⁶

Wobé: di-ε ko sēā ‘He ate rice today’
/he ate-ε rice today/

cf. Sēā mε di ko ‘it is TODAY he ate rice’
/today FOC he ate rice/

3.2. ‘Objective forms’ in conjugation patterns

In some other African languages, the verbs are ‘object-sensitive’, but the structure of verb phrase is not so clear in manifesting the sequence of its constituents. However, the development of present-day forms from the earlier segments is recognizable. In Kanuri, a Nilo-Saharan language, morphological changes of the verb are related to the pronominal object. The pattern of verbal morphology is referred to as ‘object conjugation’ or ‘objective forms’¹⁷. The verb root *wú* ‘look at’ has therefore the following forms of its verbal complex¹⁸:

- Kanuri: a. *wúnəmin* ‘you are looking at’¹⁹
wusəmin ‘you are looking at me’
- b. *wúnəwi* ‘you (Pl.) are looking at’
wúsàwi ‘you (Pl.) are looking at us’

Morphological segmentation of the verbal complex allows distinguishing morphemes representing personal pronouns; it is *-s-* for 1st person singular, and *-sa-* for 1st person plural.²⁰ In diachronic interpretation, the structure is similar to that of many other African languages in which object pronoun is incorporated into the verbal complex. Synchronically, they are part of the conjugation system. Similarly in Lamang, which is a Chadic language, a conjugation paradigm contains a pronominal object (hardly distinguishable in the linear structure nowadays) that takes the position “between the immediate postverbal extensions and other extension suffixes”²¹, e.g.:

¹⁶ Marchese 1983: 119.

¹⁷ The label ‘objective conjugation’ was proposed by J. Lukas in his description of the language (Lukas 1937).

¹⁸ Lukas 1937: 36, 112.

¹⁹ The constituents of the verb in its finite form follow the order VOS, i.e. verb-object-subject sequence.

²⁰ Cyffer 1978: 306.

²¹ Wolff 1983: 228.

Là -nà **-nà** ʻ b` la -i
 /go -CAUS -him -out PERF 1Sg/
 [lànà**nóbli**] ‘I have brought him out’

Conjugation patterns that incorporate pronominal marker manifest a special instance of verb-object agreement. In these structures, object pronouns are used for coding verbal argument and they have the status of constitutive morphemes within the verbal complex. As it had happened with subject pronouns in many world’s languages, they became integrated into the verbal complex.

4. Agreement for syntactic features of the object

The complex structure of verb phrase in African languages includes the division of verbs into the classes, according to their morphologic and syntactic properties. In Fyer, a Chadic language, segmental markers are used to indicate that the verbal complement is an object. In this way, object morphemes distinguished in the verbal phrase allow differentiating the nominal and pronominal object. However, the class of verbs determines the use of a marker. In one class, the nominal object is marked by *-a* and the pronominal object is introduced immediately after the verb, e.g.:²²

Fyer: Yi mun ísh ‘I love you’
 Yi mun-**a** fàrà ‘I love the child’

In the other class, the nominal object is unmarked whereas the pronominal object is marked by *-t-*, e.g.:

Fyer: Mí lèf-t-is ‘he slaughtered it’
 Mí lèf ràdoj ‘he slaughtered an animal’

In Hausa, which is also a Chadic language, morphological class of verbs termed as ‘grade II verbs’²³ or ‘changing verbs’²⁴ has been distinguished. The morphological changes of these verbs are determined by marking the distinction between nominal and pronominal form of the following object. The final ending of the verb is *-i* when the object is a noun and *-e /-ee/* when the object is used in pronominal form, e.g.:

²² Jungraithmayr 1970: 73.

²³ Parsons 1960.

²⁴ Abraham 1962.

- Hausa: a. Yārò yā sàyi littāfi
 /boy 3Sg/PAST buy book/
 ‘The boy bought a book’
- b. yārò yā sàye shì
 /boy 3Sg/PAST buy it/
 ‘The boy bought it’

The morphological changes of verb endings are apparently connected with the relation to the following object. When the object constituent is transformed into a syntactically independent item, the verb occurs with an underlying *-a /-aa/* ending, e.g.:

- Hausa: Àbîn dà yārò ya sàya littāfi nē
 /thing which boy 3Sg/PAST buy book COP/
 ‘What the boy bought was a book’

Also in Yoruba, a Niger-Congo language, the form of some verbs is determined by the following object. In this language, it is the tonal contrast that carries the information about either nominal or pronominal form of the object. It is one particular group of monosyllabic verbs termed as class II verbs²⁵ that receive a low tone before an object in pronominal form, e.g.:

- Yoruba: **Lò** aṣọ kọnnòṛò ‘wear the same type of dress’
Lò ó ‘use it’ (wear it)

The tonal feature functions as an exponent of grammatical agreement between the verb and the object. The nominal and pronominal object is differentiated in this way and the information about it is shifted to the verb. Unlike in a phonologically defined feature of tonal polarity which makes the tone of the clitic pronoun contrasted with the tone of the verb, here it is the verb which changes its tone when followed by a pronoun.

Tonal structure of the verb may be sensitive for marking presence or absence of an object. In Yoruba, a formal contrast can be observed between a structure in which there is a following complement and one in which there is none. In monosyllabic verbs the tone differentiates such two contextual forms:²⁶

²⁵ Bamgboṣe 1966: 83.

²⁶ Bamgboṣe 1966: 81.

Verb without following complement	Verb with following complement	
tà	ta	‘sell’
mò	mo	‘know’
rà	ra	‘buy’
lò	lo	‘use’
wò	wo	‘look’

Here are examples in which *wò* and *wo* are differentiated according to their syntactic context:

- Yoruba: a. wọn mò ọ̀n wò
 /they know it look/
 ‘They know how to examine it’
- b. wo tàwọ̀n ọ̀yìn bó
 /look that Europeans/
 ‘Look at that of Europeans’

Identification of presence or absence of the object in the clausal structure is a systemic device characteristic of head-marking languages²⁷. The way in which morphology and syntax interact, however, may be also an indication of agreement. In the languages presented above, the criterion for differentiating the form of the verb is nominal or pronominal form of the object.

5. Congruity conditioned by semantics

The verb may take morphological exponents to mark the semantic features of the object. Three kinds of verbal forms that manifest it are to be mentioned, namely ‘pluractional verbs’, verbs modified by extensions and suppletive verb stems. They can be met in the languages of all three families.

5.1. ‘Pluractional verbs’

Verbal plurality is motivated by either syntactic or semantic agreement with the arguments. Number agreement with the subject and (or) object is known from Chadic languages. ‘Pluractional verbs’²⁸ reflect a conjugational concord system in few languages,

²⁷ On typology of morphological marking of grammatical relations in African languages see Heine, Nurse 2000: 187.

²⁸ The label itself was coined by Paul Newman (Newman 1990). It replaced the former “intensive verbs” known from the descriptions of Chadic languages.

and a derivational category in many other languages. Plural verb stems denote semantic plurality that is a result of an action either performed by many subjects or affecting many objects, or simply repeated many times. Regarding the nature of verb-object agreement marked in this way, it is interesting to refer to P. Newman's statement²⁹ that "the use of pluractional' stem often depends upon semantic congruity between the verb and the patient. In the Hausa examples the verbs *ginà* and *gìgginà* 'build' are differentiated following the agreement with the singular form of the noun object (i.e. single object) and plural form (many objects) respectively:

- Hausa: a. An *ginà* makarantaa 'The school was built'
 /Non-pers.PAST build school)
- b. An *gìgginà* màkàràntuu 'The schools were built'
 /Non-pers.PAST build.PLUR schools/

In Beria, a Nilo-Saharan language, there are pairs of verb stems which remain in complementary distribution, if the noun object is allocated. The suppletive forms allow distinguishing singular and plural object, e.g.:³⁰

- Beria: /dɔ-/ 'bring something (one piece)'
 /tɛ-/ 'bring something (many pieces)'

In Ibibio, a Niger-Congo language, the difference between inflectional modification and derivationally motivated concord is not clearly indicated. The alternative verb forms are used to distinguish between singular and plural noun object³¹ following the verb, e.g.:³²

- | | | |
|---------|--------------------------|---------------------------|
| Ibibio: | wàk 'tear one thing' | wàì 'tear many things' |
| | síak 'mention one thing' | sái 'mention many things' |
| | tùak 'hit one person' | tùai 'hit many persons' |
| | bò 'receive one thing' | bi 'receive many things' |

Syntactic behaviour of the above verbal forms reflects the lexical variety of verbs and their phrasal compositions. The agreement, however, is recognized in partial modification of the verbs that are similar to verbal extensions. In this case, the agreement is referred to the semantic features of the object and allows marking distinction between the notion 'single' and 'many', usually with an additional specification related to distribution or other semantic properties related to the plurality of action that refers to many objects.

²⁹ Newman 1990: 83.

³⁰ Fadoul Khidir 1996: 80.

³¹ Since the nouns very often have no morphological marking for plural, it is a semantic, not grammatical category of plurality.

³² Essien 1990: 40.

6. Typology of object-sensitive verbs

Regarding the criteria by which the object-sensitive verbs are used in particular languages of three genetically unrelated languages, three types of morphological devices may be distinguished.

Firstly, the verbs with object morphemes usually represent one specific class of verbs. The morphemes, which mark an agreement, are either segmental or tonal. They may be regarded as instances of inflectional morphology. Structures that have such a device to mark verb-object agreement tend to code for nominal or pronominal form of the object. Differences between verbs followed by the object are mostly recognised for Chadic languages.

Secondly, there are affixal object pronouns that indicate an object within a verbal complex. This type of 'object conjugation' with the pronouns incorporated into the verbal complex makes the verb copying the structure of the whole phrase. The pronoun keeps the agreement for gender and number, if systemically relevant. The feature is well known from Niger-Congo languages where the class systems function and both pronominal and nominal forms of the object are present in one clause. In this case, the pronoun marks class representation of the object. Very often, the structures with such a recapitulative pronoun referring to noun object represent the focus marking system.

Thirdly, there are modifications of verb (either morphological or lexical) motivated by semantic features. With these modifications, the plurality of objects in the functional relation between verb and noun object is coded on verb. Though basically related to the category of number, this coding is not regarded as grammatical agreement, as the features are not marked obligatorily and may be omitted or defined by the context.

Conclusions

Regarding typological criteria, languages which mark agreement between the verb and the object are rather less common than languages that mark agreement between the verb and the subject³³. African languages share the properties of many world's languages in this respect, but at the same time the list of coding means for agreement between the verb and the object is relatively rich, at least in comparison with European languages.

In terms of grammatical relations, the most distinctive feature of the structures presented above is that inflectional or derivational morphology of verbs marks the congruity with the object, not with the subject. If we admit that in semantic relations it is often a Patient the information of which is placed with a verb, we may state that this kind of agreement meets the requirements of an ergative concord system. African languages of three different families seem to manifest the traces of such a system in their syntactic structures.

³³ MacWhinney, Pléh 1997: 68.

Abbreviations

-CAUS	causative (extension)
COMPL	completive marker
COP	copula
Ext	(verbal) extension
FOC	focus marker
Non-pers	non-personal pronoun
Obj	object marker
PAST	past (tense)
(3) Pl	(third person) plural pronoun
PLUR	pluractional (stem)
PERF	perfective
(3) Sg	(third person) singular pronoun

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