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Animacy-based concord in Chiyao

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Chiyao (Bantu, P21) allows animate concord and/or grammatical agreement for subject and object marking, depending on the type of noun. This article offers an initial description of the relevant patterns in Tanzanian Chiyao. We examine animacy effects in Chiyao grammar, focusing on subject and object marking. We show that the choice of animate concord over class concord is determined by a complex combination of factors, including formal grammatical features like noun class and number, semantic features of the referent such as size, and pragmatics. These findings contribute to the literature on Chiyao, our understanding of agreement systems in Bantu languages and the typological and comparative literature on animacy as a grammatical and/or pragmatic feature.

Introduction

In Chiyao (Bantu, Guthrie code: P21,[1] spoken in Tanzania, Mozambique and Malawi), agreement between a verb and its subject/object noun phrase can reflect semantic features – in the case of animacy agreement – or formal gender features (i.e. the noun class) of the noun. The former corresponds to what Wald (1975) calls 'animate concord' (AC)[2], while the latter corresponds to 'class concord' (CC). Animate concord refers to agreement with classes 1 and 2, the noun classes associated with humans in Bantu languages, which in a number of Bantu languages have come to be used for all humans or animals more generally. Historically, nouns from classes 1 and 2 are associated with human referents in Bantu languages, but some mismatches are common in many Bantu languages, with classes 1 and 2 containing nouns with inanimate referents in some languages, and some nouns referring to animates appearing in classes other than 1 or 2 in all Bantu languages. Nouns referring to plants, bacteria or viruses and other types of biologically animate entities do not show animacy effects in Chiyao, nor generally in Bantu, and we do not discuss them here.

Animacy effects can appear in different parts of the grammar, including the nominal and verbal agreement domains, as well as in other parts of the syntax. While the subject marker is uncontroversially an agreement marker in Chiyao and other Bantu languages, the object marker is required for certain verbs, even with an overt lexical object noun phrase in Chiyao (see Taji, 2020), and, depending on one's theoretical framework, may be seen as functioning as both an agreement marker and an incorporated pronoun (Taji, 2020), or just an agreement marker. This distinction is not relevant here. We adopt Wald's terminology here, but treat 'concord' and 'agreement' as interchangeable terms for subject and object marking and nominal agreement, and refer to the relevant processes as 'agreement' and use 'animate concord' and 'animacy agreement' interchangeably.

The conditions that justify the choice of one agreement strategy over another have not been analysed in detail in the literature on Chiyao morphosyntax (see Ngunga, 1997; Taji & Mreta, 2014; Taji, 2017; 2020). Class concord is illustrated for the inanimate noun *chiviga* 'cooking pot' in Example (1).[3] Chiyao requires animate concord for some nouns referring to humans that are not in classs 1 or 2, such as *chilundamisi* 'first initiate' in Example (2a), where class concord is not acceptable (2b).

(1) *Chi-viga* *chi-mo* *chi-kas-iche*
7-cooking_pot 7-one SM7-break-STAT.PERF
'One cooking pot is broken.'

(2a) *Chi-lundamisi* *a-jinjil-e* *m-kati*
7-first_initiate SM1-enter-PERF 18-inside
'The first initiate has entered inside.'

(2b) **Chi-lundamisi* *chi-jinjil-e* *m-kati*
7-first_initiate SM7-enter-PERF 18-inside
Intended: 'The first initiate has entered inside.'

This article offers a description of animacy agreement in Chiyao, focusing on subject and object marking, based on data from Tanzanian Chiyao. We show that the choice of AC over CC is determined by a complex combination of factors, including semantic features of the referent such as size, noun class membership, sociocultural attributes of the referent and context in some cases. The article is structured as follows: We start by providing a brief review of animacy in other East African Bantu languages. Then we describe the noun classes and various categories of animate and inanimate nouns in Chiyao, followed by a description of subject and object agreement patterns in Chiyao. Then we discuss animacy effects with coordinated noun phrases, and finally offer conclusions.

Animate concord in Bantu languages

Generalised animacy effects, where animate or human nouns always show animate subject and object agreement, irrespective of their discourse status or context, are only found in a fairly small number of Bantu languages mostly restricted to East Africa (see Marten et al., 2018). Animacy effects on agreement are particularly associated with Kiswahili (G42) and neighbouring languages (Wald, 1975). Maho (2003) analyses animacy effects in the agreement system as a step away from the traditional noun class systems (reconstructed for Proto-Bantu), towards a reduction and eventually the disappearance of gender and agreement. Animacy effects on agreement are thus an innovation.

In the Bantu languages that have them, animacy effects may be limited to some humans (Ström, 2012), all humans (as in Sambaa, G23; see Riedel, 2009) or all animates (as in Kiswahili, see Wald, 1975). Cross-linguistically, animacy effects tend to apply to narrower or broader categories of nouns from most to least animate on the animacy scale (3a), but this is often influenced by definiteness or discourse prominence effects (3b), especially in the context of object marking (Aissen, 2003). Hyman and Duranti (1982) propose a hierarchy of person and animacy status (Example 4), which they argue determines the object potential of an object noun phrase, together with its thematic role.

(3a) human > non-human animate > inanimate
(3b) Definiteness scale: Personal pronoun > Proper name > Definite NP > Indefinite specific NP > Non-specific NP
(Aissen, 2003: 437):

(4) 1st > 2nd > 3rd human > 3rd animal > 3rd inanimate
(Hyman & Duranti, 1982: 224)

Animate concord is found in a number of Tanzanian Bantu languages, such as Kiswahili, Ndengeleko (P10) and Sambaa (Wald, 1975; Contini-Morava, 2008; Riedel, 2009; Ström, 2012). Example (5) shows animate concord in Ndengeleko, where the animate class 7 noun *kipʊmbʊgʊ* 'large crocodile' triggers class 1 subject marking.

(5) *ki-pʊmbʊgʊ* *a-yingii* *mu-lɪmbwa*
7-large_croc SM1-enter.PERF 18LOC-5.hole
'The large crocodile entered the hole.'
(Ström, 2012: 266)

Animate concord has been reported to be an areal characteristic of the Bantu languages spoken along the East African coast (Wald, 1975; Ström, 2012). Wald (1975) views this pattern as an innovation which has spread through the influence of Kiswahili. This is because the use of AC in Kiswahili is firmly established compared to other Bantu languages, particularly those located further away from the coast, and Kiswahili-speaking communities are spread all along the East African coast (Wald, 1975).

In Kiswahili, all underived nouns denoting animate entities, regardless of their noun class membership, show animate agreement on the verb (Wald, 1975). This is shown for the human noun *kiongozi* 'leader' (class 7/8) in Example (6).

(6a) *Ki-ongozi* *w-etu* *m-refu* *a-li-anguka*. [Kiswahili]
7-leader 1-our 1-tall SM1-PST-fall
'Our tall leader fell down.'
(Pesetsky, 2019: 558)
(6b) **Ki-ongozi* *ch-etu* *ki-refu* *a-li-anguka*.
7-leader 7-our 7-tall SM1-PST-fall
Intended: 'Our tall leader fell down.'
(Pesetsky, 2019: 558)

In Kiswahili, this pattern also applies to nouns denoting non-human animals. In Example (7) below, the class 7 noun *kiboko* 'hippo' induces class 1 agreement on the demonstrative and the object marker (7a). The same pattern applies to nouns in other noun classes, such as *nyani* 'monkey' (class 9).

(7a) *Yu-le* *ki-boko* *ni-li-mw-ona* [Kiswahili]
1-DEM 7-hippo SM1S-PST-OM1-see
'That hippo, I saw it.'
(Wald, 1975: 272)
(7b) **Ki-le* *ki-boko* *ni-li-ki-ona*
7-DEM 7-hippo SM1S-PST-OM7-see
Intended: 'That hippo, I saw it.'
(our own data)
(7c) *Nyani* *w-angu* *m-refu* *a-li-anguka*
9.monkey 1-my 1-tall SM1-PST-fall
'My tall monkey fell down.'
(Pesetsky, 2019: 560)
(7d) **Nyangi* *y-angu* *m-refu* *a-li-anguka*
9.monkey 9-my 1-tall SM1-PST-fall
Intended: 'My tall monkey fell down.'
(Pesetsky, 2019: 560)

Exceptions to the above pattern in Kiswahili are augmentative and diminutive nouns, which Wald (1975) describes as derived nouns, where class concord is obligatory.[4] Example in (8) demonstrates agreement with the class 7 diminutive noun *kitoto* 'small child', derived from the class 1 noun *mtoto* 'child' where only class concord (8a) is grammatical, while animate concord either on the adjective and verb (8b) or only on the verb are ungrammatical (8c).

(8a) *Ki-toto* *ki-zuri* *ki-na-lia* [Kiswahili]
7-child 7-nice SM7-PRES-cry
'A nice small child is crying.'
(8b) **Ki-toto* *ki-zuri* *a-na-lia*
7-child 7-nice SM1-PRES-cry
'A nice small child is crying.'
(8c) **Ki-toto* *m-zuri* *a-na-lia*
7-child 1-nice SM1-PRES-cry
'A nice small child is crying.'

Another exception to AC in Kiswahili are possessives and associatives for some kinship terms such as *dada* 'sister', and some terms expressing other types of social relations, such as *rafiki* 'friend'. These do not show animate concord in the lower parts of the nominal domain, as exemplified in Example (9), but like other non-derived nouns referring to humans, they require animate concord for adjectives and verbal agreement (9a) (Corbett, 2006; Contini-Morava, 2008; Pesetsky, 2019). This shows that even in Kiswahili AC and

CC exist for nouns denoting humans, depending on the type of noun and the type of agreement.

(9a) *Ndugu* *y-angu* *m-refu* *a-li-anguka* [Kiswahili]
9.sibling 9-my 1-tall SM1-PST-fall
'My tall sibling fell down.'
(Pesetsky, 2019: 560)

(9b) **Ndugu* *w-angu* *m-refu* *a-li-anguka*
9.sibling 1-my 1-tall SM1-PST-fall
Intended: 'My tall sibling fell down.'
(Pesetsky, 2019: 560)

(9c) *Kaka* *yangu* *ni* *m-jinga*
9.brother 9.my is 1-idiot
'My brother is an idiot.'
(Pesetsky, 2019: 561)

(9d) *Ma-rafiki* *z-angu* *wa-li-ni-pa* *zawadi*
6-friend 10-my SM2-PST-OM1S-give 9gift
'My friends gave me a gift.'
(our own data)

Kiswahili also uses what might be interpreted as a strategy to avoid conflict between animate and class concord, with nouns denoting family relations (kinship terms), such as *mama* 'mother', *baba* 'father', *kaka* 'brother' and *dada* 'sister'. As shown above, these nouns appear without prefixes in Standard Kiswahili, but they induce verbal and adjectival agreement from classes 1 and 2. More recently, some Kiswahili speakers can be observed using a class 1 prefix with kinship nouns that refer to humans but are not morphologically in classes 1 or 2. This results in forms such as *m-mama/wa-mama* 'mother(s)', *m-baba/wa-baba* 'father(s)', *m-kaka/wa-kaka* 'brother(s)' and *m-dada/wa-dada* 'sister(s).' Example (10) shows the older pattern where the noun *baba* 'father' takes a class 1 concord on the verb, while Example (11) shows the patterns with the classes 1/2 prefixes added.

(10) *Baba* *a-me-safiri*. [Kiswahili]
9father SM1-PERF-travel
'My father has gone on a trip.'
(our own data)

(11a) *Wa-mama* *wa-me-unda* *chama* *chao*. [Kiswahili]
2-mother SM2-PERF-form 7.party 7.POSS.3PL
'Women (lit. mothers) have formed their party.'
(our own data)

(11b) *Baadhi* *ya* *wa-dada* *ha-wa-ji-heshimu*.
some 9of 2-sister NEG-SM2-REFL-respect
'Some girls/young women (lit. sisters) don't respect themselves.'
(our own data)

This strategy seems to be a recent innovation which began among young speakers in informal registers, but it is currently gaining popularity among different age groups and in more formal settings. The foregoing data seem to suggest that the choice between AC and CC in Kiswahili is determined by both morphological and semantic features of the controlling nouns. The influence of morphology is evident in derived human nouns, which strictly induce CC (as in Example (8)) and thus contrast with their underived counterparts, which consistently take AC (as in Example (6) above). On the other hand, the influence of semantics is evident in some nouns denoting kinship, which strictly take CC in their possessive determiners, as shown in Example (9) above.

Apart from Kiswahili, animacy agreement has been reported for several other East African Bantu languages, with different environments triggering its use in different languages. In Matumbi (P13), nouns denoting animals, except those from class 5 (which are very few), use AC in the singular but CC in the plural forms (Odden, 1996). Similarly, in Ndengeleko, all underived animate nouns trigger AC, except for plurals in class 6. In class 6 plurals, AC and CC are in free variation, as shown in Example (12).

(12a) *a-bʊlage* *makule* *aba* [Ndengeleko]
OM2-kill.SUBJ 6.rat DEM2
'Kill these rats!'

(12b) *ga-bʊlage* *makule* *aga*
OM6-kill.SUBJ 6.rats DEM6
'Kill these rats!'
(Ström, 2012: 278)

In Example (12a), the head noun *makule* 'rats' (class 6) induces agreement from class 2 on the verb and demonstrative, thus demonstrating AC. On the other hand, in Example (12b) the head noun triggers agreement class 6 on the verb and demonstrative, i.e. CC. In Sambaa, human nouns consistently take classes 1/2 concord, but non-human animates take agreement with their respective noun classes, as shown in Example (13) below.

(13a) *Ni-za-ji-ona* *kui* [Sambaa]
SM1-PERF.DJ-OM5-see 5.dog
'I saw the/a dog.'

(13b) **Ni-za-mw-ona* *kui*
SM1-PERF.DJ-OM1-see 5.dog
Intended 'I saw the/a dog.'
(Riedel, 2009: 47)

In Example (13a), object agreement is based on class 5, where the controlling noun *kui* 'dog' belongs. Example (13b) shows that co-referencing a class 5 noun with a class 1 object marker is not acceptable, even though this noun refers to animal. The only exception to strict use of CC for nouns referring to animals in Sambaa as demonstrated in Example (13) is found in narrative discourse where animals are personified. In such cases, sentences like Example (14), with a class 5 noun taking object agreement from class 1, can be encountered.

(14) *A-ka-m-nka* *fishi* *nkaanga*. [Sambaa]
SM1-CONS-OM1-give 5.hyena 10.peanuts
'He gave the hyena peanuts.'[5]
(Riedel, 2009: 27)

Although AC is reported to be a typical feature of the Bantu languages of the East African coast (see Wald, 1975; Ström, 2012), some languages spoken in the more central and southern regions also make use of this type of agreement, though more marginally. In Chichewa (N31) for example, AC is realised in object agreement markers and

emphatic personal pronouns when they are located far from the controlling noun (Corbett & Mtenje, 1987). In such constructions, there is a switch from syntactic agreement (i.e. CC) to semantic agreement (i.e. AC). Example (15) is illustrative of this pattern.

(15) *ka-mwana* *ka-mene* *ka-ma-gona* *mu-nyumba*
12-small_child 12-REL SM12-HAB-sleep 18LOC-9.house
umu *ka-mene*
18DEM 12-REL
ka-ma-pita *ku-sukulu* *ku-London,* *mai* *ake*
SM12- HAB-go 17-school 17-London, 1.mother POSS.3S
*a-ma-**ka/mu**-konda* ***iko(ko)/iye(ko)***
SM1-HAB-OM12/1-love 12PRO/1PRO
'The small boy who sleeps in this house who goes to school in London, his mother loves him.'
(Chichewa; Corbett & Mtenje, 1987: 12)

In Example (15), it is shown that the controlling noun from class 12 triggers grammatical agreement in all dependents in the subordinate clause, but in the main clause, the agreement optionally switches to class 1 in the object marker and the emphatic pronoun that follows. Thus, object markers and emphatic pronouns located far from the head noun can take either CC or AC. The agreement pattern demonstrated in the Chichewa example is consistent with Corbett's (1979) agreement hierarchy which postulates that syntactic distance increases the likelihood of semantic agreement (Corbett & Mtenje, 1987).

The above review suggests that use of AC is widespread in the languages spoken around Chiyao (especially the languages spoken further north), but each of the languages has some different constraints on syntactic versus animacy agreement (see also Ström, 2012). It has been shown that even in languages where AC is prevalent, there are cases of grammatical agreement with animates not in classes 1/2. Such contexts include morphological properties of the controlling noun and the type of dependent (as in Kiswahili-derived animate nouns and kinship possessives), noun class membership (as in Matumbi and Ndengeleko where nouns from class 5 and 6 are exempted from AC respectively), as well as distance between the controlling noun and the dependent to be marked, as in Chichewa. Additional constraints are the seemingly widespread patterns of animacy for discourse participants (Givón, 1970) and in stories found in Southern Bantu (Riedel, 2021; see also some examples listed in Marten et al., 2018), for which we show the relevant Chiyao patterns below, and animacy effects which appear under coordination.

In the following section, we describe how animacy works in the Chiyao noun class system. This will form the basis for our analysis of animate concord in the subsequent sections.

The Chiyao noun class system

Chiyao has 18 noun classes, as presented in Table 1, plus a subgroup of classes 1 and 2 in the singular 1a. Bantu noun classes generally form regular singular-plural pairings, with even-numbered classes containing the plural forms of odd-numbered classes, so that class 2 contains the plural forms of class 1, class 4 the plurals of class 3 and so on. Exceptions to this are the noun classes after 13, which normally include abstract nouns (class 14) many of which do not have plural forms, gerunds (class 15) and locatives (classes 16, 17, 18). Some exceptional pairings can also be found in lower classes, but largely agreement in noun class means agreement for gender and number. As in Bantu languages in general, classes 1 and 2 are associated with humans/animacy in Chiyao. First and second person singular and plural forms are separate from this system and cannot obviously be linked to a particular noun class, but often pattern with the animate classes 1/2. The noun class of the head noun determines agreement on nominal modifiers such as adjectives and demonstratives, while verbs agree in noun class or person and number with their subject and potentially also their object(s) (see Katamba, 2003 for an overview of Bantu nominal morphology). Nouns referring to humans are mainly concentrated in classes 1 and 2. Some examples of these are presented in Example (16).

(16) Human-denoting nouns in classes 1/2

Sg. (cl. 1)	Pl. (cl. 2)	
mundu	*vandu*	'person/people'
mchekulu	*vachekulu*	'elder(s)'
mwanache	*vanache*	'child/children'

A significant number of human nouns can be found in class 1a. These mainly denote kinship terms (17a), and people with special professions or titles (17b). The nouns denoting kinship terms form their plural from class 2, while those referring to people with professions and titles form their plurals in class 2 or class 6.

(17a) Nouns denoting kinship terms

Sg. (cl. 1a)	Pl. (cl. 2)	
alumbu	*valumbu*	'sister(s)'
akwelume	*vakwelume*	'maternal uncle(s)'
alamu	*valamu*	'brother(s) or sister(s)-in-law'
ambuje	*vambuje*	'grandfather(s)'
ambusanga	*vambusanga*	'friend(s)'

(17b) Nouns denoting professions

Sg. (cl. 1a)	Pl. (cl. 2 or 6)	
amweenye	*mamwenye*	'chief(s)' (cl. 6)
amichila	*vamilichila*	'circumciser(s)' (cl. 2)
amwalimu	*valimu*	'teacher(s)' (cl. 2)
apadule	*mapadule*	'priest(s)' (cl. 6)

Personified animals, as commonly found in traditional stories, are also found in this class. In this context, the class 1a prefix appears like a pre-prefix, as shown in Example (18) which is taken from a traditional story.

(18) *A-li-túnu* *a-pángené* *uganja* *ní* *a-sungúla*.
1a-5-hyena SM1-make.PST 14-frienship with 1a-hare
'A hyena befriended a hare.'

In (18), the nouns *litunu* 'hyena' and *sungula* 'hare' are personified and shifted from their respective classes (5 and 9) to class 1a, which controls agreement in the verb. More examples of nouns referring to personified animals are provided in (19). These nouns form their plural with the prefix *anya-* which is cliticised/affixed to the stem.

Table 1: Chiyao noun classes and their agreement patterns (adapted from Taji, 2017)

Class	Prefix	Example	Gloss	Subject	Object	Adjective
1	*mu-*	*mundu*	'person'	*a-*	*-mu-*	*jwa-*
1a	*a-*	*amwenye*	'chief'	*a-*	*-a-*	*va-*
2	*va-*	*vandu*	'people'	*a-/va-*	*-(v)a-*	*va-*
3	*m-*	*mteela*	'tree'	*u-*	*-u-*	*we-*
4	*mi-*	*miteela*	'trees'	*i-*	*-i-*	*we-*
5	*li-*	*lindanda*	'egg'	*li-*	*-li-*	*lye-*
6	*ma-*	*mandanda*	'eggs'	*ga-*	*-ga-*	*ga-*
7	*chi-*	*chipuula*	'knife'	*chi-*	*-chi-*	*che-*
8	*i-*	*ipuula*	'knives'	*i-*	*-i-*	*ye-*
9	*n*	*ndembo*	'elephant'	*ji-*	*-ji-*	*jwa-*
10	*n*	*ndembo*	'elephants'	*si-*	*-si-*	*sye-*
11	*lu-*	*lusulo*	'river'	*lu-*	*-lu-*	*lwe-*
12	*ka-*	*kajuni*	'small bird'	*ka-*	*-ka-*	*ka-*
13	*tu-*	*tujuni*	'small birds'	*tu-*	*-tu-*	*twe-*
14	*u-*	*ukana*	'liquor'	*u-*	*-u-*	*we-*
15	*ku-*	*kulya*	'eating'	*ku-*	*-ku-*	*kwe-*
16	*pa-*	*paasi*	'down'	*pa-*	*-pa-*	*pe-*
17	*ku-*	*kumchiji*	'left'	*ku-*	*-ku-*	*kwe-*
18	*mu-*	*mulisimbo*	'in the pit'	*mu-*	*-mu-*	*mwe-*

(19) Nouns denoting personified animals from class 1a

Sg. (cl. 1a)	Pl. (anya-)	
akalunga	*anya-akalunga*	'hare(s)'
alitunu	*anya-alitunu*	'hyena(s)'
achikuvi	*anya-achikuvi*	'squirrel(s)'

The pluralising prefix or clitic *anya-* is also used in some kinship terms, as in *anyamama* 'mothers', *anyakaka* 'brothers', *anyababa* 'fathers', and *anyadada* 'sisters'. Occupations and certain physical characteristics of humans are expressed by morphologically complex forms. These include the associative of classes 1/2 cliticised to a morphologically singular or plural noun from another class (see Example 20). These noun phrases/complex nouns are interpreted as singular with a class 1 associative and plural with a class 2 associative, irrespective of the number marked by the noun class prefix of the noun that they are cliticised to. This pattern is mainly used as a derivational class to form nouns denoting people engaged in particular activities (e.g. farming) or those with particular characteristics (e.g. disability). Example (20) presents some examples.

(20)

Sg.	Pl.	
jwamikuuli	*vamikuuli*	'hunter(s)' < *mikuuli* 'hunting' (cl. 4)
jwamalonda	*vamaloonda*	'trader(s)' < *malonda* 'trade' (cl. 6)
jwawiyi	*vawiyi*	'thief/thieves' < *wiyi* 'theft' (cl. 14)
jwangalola	*vangalola*	'blind person(s)' < *nga-lola* 'NEG+ see'
jwangapilikana	*vangapilikana*	'deaf person(s)' < *nga-pilikana* 'NEG+ hear'

In addition to classes 1, 1a, and 2 discussed above, a small number of nouns referring to humans are found in other noun classes, including classes 3, 5, 7 and 9. These nouns form their plurals from the regular plural classes of their morphological class, that is, 4, 6, 8 and 10 respectively. These mainly denote persons with disapproved behaviours or exceptional features. Example (21) lists some of these.

(21) Human-denoting nouns from classes 3, 5, and 7

Sg.	Pl.	
lisabada	*masabada*	'prostitute(s)' (cl. 5/6)
likambaku	*makambaku*	'giant strong boy(s)' (cl. 5/6)
likumbiidi	*makumbidi*	'drunkard(s)' (cl. 5/6)
livelu	*mavelu*	'idiots(s)' (cl.5/6)
chilundamisi	*ilundamisi*	'last boy(s) on the circumcision list' (cl. 7/8)

Nouns referring to non-human animates are mainly found in in classes 5/6, 7/8 and 9/10 and a small number in class 14. These are exemplified below:

(22) Animal-denoting nouns from class 5/6

Sg. (cl. 5)	Pl. (cl. 6)	
lisimba	*masimba*	'lion(s)'
lijoka	*majoka*	'snake(s)'
lipuku	*mapuku*	'rat(s)'
ligumi	*magumi*	'frog(s)'
lijani	*majani*	'monkey(s)'

(23) Animal-denoting nouns in class 7/8

Sg. (cl. 7)	Pl. (cl. 8)	
chijuni	*ijuni*	'bird(s)'
chisuvi	*isuvi*	'leopard(s)'
chikuvi	*ikuvi*	'squirrel(s)'
chiulu	*iulu*	'wild cat(s)'

(24) Animal-denoting nouns in class 9/10[6]

ndomondo	'hippo(s)'
nguku	'chicken(s)'
ngong'o	'tortoise(s)'
ngondolo	'sheep (sg./pl.)'
mbusi	'goat(s)'

There is also a small number of nouns with animal referents in class 14. Most of these refer to small animals and insects that tend to appear in large numbers. Examples of these are given in Example (25).

(25) Animal-denoting nouns from class 14
udagaa 'sardine(s)'
ulavili 'flea(s)'
ucheche 'termite(s)

The above overview has shown that nouns referring to animate entities (including human and non-human animates) are found in a number of different noun classes in Chiyao. While nouns referring to humans are mostly found in classes 1/2 and 1a (i.e. the classes associated with humans or animacy), and non-human animates mostly belong to classes 5/6, 7/8 and 9/10 (i.e. classes associated with inanimates), some human nouns appear in the classes normally associated with inanimates and some animals appear in class 14.

As demonstrated in the following section, despite sharing the semantic feature animacy, these nouns display different agreement patterns on the verb and nominal dependents. Notably, even nouns in the same noun class show different agreement patterns at times. In the following section, we discuss the conditions that motivate the choice between these two types of agreement in different nouns referring to animate entities in Chiyao.

Animacy and class agreement in Chiyao

In this section, we discuss nouns referring to humans and nouns referring to non-human animals and their agreement patterns for subject and object marking in Chiyao. We show that there are different agreement classes among both human and non-human animates.

Agreement with nouns referring to humans

As shown earlier, nouns with human referents are mainly found in classes 1 and 1a, except for a small number of nouns referring to humans in classes 3/4, 5/6 and 7/8. Example (26) demonstrates grammatical agreement with subject nouns from class 1 (Example 26a), and 1a (Example 26b).

(26a) *M-chanda* *a-iche*
1-boy SM1-arrive.PERF
'The boy has arrived.'
(26b) *Ambuje* *a-ku-sepa* *m-paamba*
1a.grandfather SM1-PRES-sharpen 3-arrow
'Grandfather is sharpening an arrow.'

Unlike human nouns from classes 1, 1a, and their plurals, which as expected always agree with classes 1/2, human nouns from other classes exhibit mixed patterns. Some take animate concord, while others take class concord. For example, human nouns denoting people with what may be described as socially disapproved behaviours take class concord rather than animate concord. For example, the nouns *nachilongola* 'first initiate', *chilundamisi* 'last initiate', *lisabada* 'prostitute' and *likumbiidi* 'drunkard' all denote human beings with particular characteristics, but trigger different agreement patterns. While the first two take animate concord (Examples 27 and 28), the last two take class concord (Example 29).

(27a) *Nachilongola* *a-ku-tyala* *uchenene*
9.first_initiate SM1-PRES-dance well
'The first initiate is dancing well.'
(27b) **Nachilongola* *ji-ku-tyala* *uchenene*
9.first_initiate SM9-PRES-dance well
Intended: 'The first initiate is dancing well.'

(28a) *Chi-lundamisi* *nga-ni-a-lila*
7-last_initiate NEG-PST-SM1-cry
'The last initiate did not cry.'
(28b) **Chi-lundamisi* *nga-ni-chi-lila*
7-last_initiate NEG-PST-SM7-cry
Intended: 'The last initiate did not cry.'

(29a) *Na-li-pele* *li-kumbidi* *mbiya*
SM1-OM5-give.PST 5-drunkard 9.money
'I gave money to the drunkard.'
(29b) **Na-m-pele* *li-kumbidi* *mbiya*
SM1-OM1-give.PST 5-drunkard 9.money
Intended: 'I gave money to the drunkard.'

This pattern, in which some human-denoting nouns induce a class concord rather than animate concord contrasts with other East African Bantu languages with animacy agreement, such as Kiswahili or Ndengeleko where all nouns with human referents, with the exception of derived human-denoting nouns, induce animate concord, as shown above. This less generalised pattern may indicate that animacy agreement has grammaticalised to a lesser extent in Chiyao than in other East African Bantu languages, where we would expect gradual extensions to broader classes and categories, as seen in Kiswahili.

Agreement with nouns referring to non-human animates

Nouns referring to non-human animates such as non-human mammals, birds, fish, reptiles and insects appear in a number of different noun classes in Chiyao but never in classes 1/2. Most of these nouns are in classes 5/6, 7/8 and 9/10. Some nouns referring to small insects that usually appear in large numbers are found in class 14. Since nouns from each of these classes exhibit a different agreement pattern, we discuss them separately below.

Animate nouns from classes 5/6 and 7/8

All nouns denoting animate entities from classes 5/6 and 7/8 induce class concord for subject marking, as shown in Example (30). In the example below, a class 7 noun (30a) and class 5 noun (30c) trigger class concord on their respective verbs. Examples (30b) and (30d) illustrate the ungrammatical counterparts with animate agreement.

(30a) *Chi-tumbili* *chi-tawine* *ma-kaka*
7-monkey SM7-eat.PERF 6-dried_cassava
'The monkey has eaten dried cassava.'
(30b) **Chi-tumbili* *a-tawine* *ma-kaka*
7-monkey SM1-eat.PERF 6-dried_cassava
'The monkey has eaten dried cassava.'

(30c) *Li-guluve* *lyangu* *li-ku-lwala*
5-pig 5.POSS.1SG SM5-PRES-be_sick
'My pig is sick.'
(30d) **Li-guluve* *jwangu* *a-ku-lwala*
5-pig 1.POSS.1SG SM1-PRES-be_sick
'My pig is sick.'

Example (31) illustrates the same pattern for object marking with a class 5/6 noun in the plural form, where again only CC is grammatical.

(31a) *A-ga-uleje* *ma-koswe* *ga-tatu*
SM1-OM6-kill.PERF 6-rat 6-three
'He/she has killed three rats.'
(31b) **A-va-uleje* *ma-koswe* *va-tatu*
SM1-OM2-kill.PERF 6-rat 2-three
'He/she has killed three rats.'

Animate nouns from classes 5/6 and 7/8, which do not take AC as shown in Example (26) can take agreement with an animate class only if they are morphologically shifted to class 1a, which is generally limited to personified animals in traditional stories.[7] This is done by affixing the class 1a prefix before the regular class prefix of the relevant noun. This additional class prefix then controls agreement for all nominal and verbal affixes, as shown in Example (32).

(32a) *A-li-simba* *a-utwiche*.
1a-5-lion SM1-escape.PERF
'The lion has escaped.'
(32b) *A-chi-suvi* *a-kamwile* *ngondolo*.
1a-7-leopard SM1-catch.PERF 9.sheep
'The leopard has caught a sheep.'

However, in Chiyao, noun class shift is only grammatical with singular nouns, while plural forms only allow class concord. This might be because Chiyao lacks a class 2a (as found in Southern Bantu languages and elsewhere). Thus, nouns shifted to class 1a form their plural from their original corresponding plural class, that is, classes 6 and 8. Example (33) presents plurals corresponding to Example (32).

(33a) *Ma-simba* *ga-utwiche*
6-lion SM6-escape.PERF
'Lions have escaped.'
(33b) *I-suvi* *i-kamwile* *ngondolo*
8-leopard SM8-catch.PERF 9.sheep
'Leopards have caught a sheep.'

The morphological noun class shift demonstrated above for Chiyao is reminiscent of what has been described for Luguru, where nouns from classes 9/10 are shifted to classes 1/2 as a strategy to avoid violation of CC (Wald, 1975), as demonstrated in Example (34). However, unlike in Chiyao, in Luguru, plural nouns can be shifted as well (34b).

(34a) *Yu-mbwa* *w-ake* *a-f-ire* [Luguru]
1-9.dog 1-POSS.3S SM1-die-PERF
'His dog is dead.'

(34b) *Gula* *a-mene* *wa-kulu*
buy 2-9.goat 2-big
'Buy big goats.'
(Wald, 1975: 77)

Animate nouns from classes 9/10
Unlike animate nouns from classes 5/6 and 7/8 which strictly take class concord as illustrated above, animate nouns from classes 9/10 can take either animate concord (Examples 35a to 39a) or class concord (Examples 35b to 39b), depending on the speaker's preference. This applies to a large group of nouns referring to different types of domestic and wild animals from chickens and cats to elephants and fish, as shown below, showing that this is a very general pattern for animals in classes 9/10 that even applies to animals no longer alive (Example 39).

(35a) *A-ku-m-l-isy-a* *mbaka* *jwao*.
SM1-PRES-OM1-eat-CAUS-FV 9.cat 1.POSS.3
'He/she is feeding his/her/their cat.'

(36b) *A-ku-ji-l-isy-a* *mbaka*
SM1-PRES-OM9-eat-CAUS-FV 9.cat
'He/she is feeding a/the cat.'
(36a) *A-ku-m-teleka* *nguku*.
SM1-PRES-OM1-cook 9.chicken
'He/she is cooking the chicken.'
(36b) *A-ku-ji-teleka* *nguku*.
SM1-PRES-OM9-cook 9.chicken
'He/she is cooking the chicken.'

(37a) *A-m-sinjile* *mbusi*.
SM1-OM1-slaughter.PERF 9.goat
'He/she has slaughtered a goat.'
(37b) *A-ji-sinjile* *mbusi.*
1SM-9M-slaughter.PERF 9.goat
'He/she has slaughtered the goat.'

(38a) *Ndembo* *va-tatu* *a-jinjile* *mu-m-gunda*.
10.elephant 2-three SM2-enter.PERF 18LOC-3-farm
'Three elephants have entered the farm.'
(38b) *Ndembo* *si-tatu* *si-jinjile* *mu-m-gunda*.
10.elephant 10-three SM10-enter.PERF 18LOC-3-farm
'Three elephants have entered the farm.'

(39a) *A-va-teleche* *somba* *va-tatu* *vala* *ni*
SM1-OM2-cook.PST 10.fish 2-three 2.DEM and
ku-ly-a *li-gulo*
INF-eat-FV 5-evening
'S/he cooked the/those three fish and ate in the evening (i.e. for dinner)'
(39b) *A-si-teleche* *somba* *si-tatu* *sila* *ni*
SM1-OM10-cook.PST 10.fish 10-three 10.DEM and
ku-ly-a *li-gulo*
INF-eat-FV 5-evening
'S/he cooked the/those three fish and ate in the evening (i.e. for dinner)'

However, not all nouns in classes 9/10 can take animate concord. Most nouns denoting small insects that normally appear in large groups, such as *salau* 'army ant(s)', *mbamba*

'black ant(s)', *njenjema* 'mosquito(es)', *membe* 'fly' and *ngumbi* 'flying termite(s)' and that also appear in this noun class can only take grammatical agreement. The examples in Example (40) and (41) demonstrate agreement with some of these nouns.

(40a) *Salau* *si-ku-m-luma* *mw-anache*
10.army_ant SM10-PRES-OM1-sting 1-boy
'Army ants are stinging a child.'
(40b) **Salau* *a-ku-m-luma* *mw-anache*
10.army_ant SM1-PRES-OM1-sting 1-boy
Intended: 'Army ants are stinging a child.'

(41a) *A-ji-uleje* *njenjema*
SM1-OM9-kill.PERF 9.mosquito
'He/she has killed the mosquito.'
(41b) **A-m-uleje* *njenjema*
SM1-OM1-kill.PERF 9.mosquito
Intended: 'He/she has killed the mosquito.'

It is not clear why nouns denoting small insects from classes 9/10 strictly induce class concord, while those denoting animals of relatively larger size take both animate and class concord. One possible explanation could be that the size and relative prominence of the animal determine the type of agreement. That would imply that small insects are considered not sufficiently animate to induce animate concord due to their size and lack of prominence. This view is supported by the fact that nouns denoting small insects from other classes also strictly induce class concord, as shown below.

Animate nouns in class 14

A small number of nouns referring to animals are found in class 14. Most of these refer to small animals that tend to appear in large groups where the nouns show no morphological distinction between singular and plural. Examples include *udagaa* 'sardine(s)', *ulavili* 'flea(s)', *ucheche* 'termite(s), and *unyala* 'worm(s).' All these strictly take class concord. Examples (42) and (43) illustrate the agreement patterns for two of these nouns.

(42a) *Au* *u-dagaa* *u*
14.DEM 14-sardine 14.DEM
'this/these sardine(s)'
(42b) **Ava* *u-dagaa* *ava*
2.DEM 14-sardine 2.DEM
'these sardines'
(43a) *U-lavili* *u-ku-ul-ag-a* *nguku*.
14-flea SM14-PRES-kill-HAB-FV 9.chicken
'Fleas do kill chicken.'
(43b) **U-lavili* *a-ku-ul-ag-a* *nguku*
14-flea SM1-PRES-kill-HAB-FV 9.chicken
Intended: 'Fleas do kill chicken.'

In Example (42a) the demonstratives agree with the head noun in terms of its formal noun class; while animacy agreement is ungrammatical in Example (42b). Likewise, in Example (43a) the subject marker agrees with class 14. It seems the nouns exemplified in Example (42) and (43) induce class concord due to the small animals they refer to and the fact that these animals are not generally referred to as unique individuals. This is reinforced by the observation that the noun *ungo* 'civet cat' that also belongs to class 14, but refers to an animal that is relatively larger, takes animate concord, as in the example below.

(44a) *U-ngo* *a-wile*.
14-civet_cat SM1-die.PREF
'The civet cat has died.'
(44b) **U-ngo* *u-wile*.
14-civet_cat SM14-die.PREF
Intended: 'The civet cat has died.'

The ungrammaticality of (44b) above is illustrative of the fact that the size and prominence of the referent matters in the selection between AC and CC.

Animacy agreement with coordinated nouns

Languages with robust gender systems and rich agreement such as the Bantu languages show a range of possible patterns with agreement under coordination where subject versus object marking, word order and language-specific agreement patterns play a role (see Givón, 1970; Corbett & Mtenje, 1987; Marten, 2000; 2005; Riedel, 2009; Taji & Mreta, 2014; Mitchley, 2015). Under coordination, a number of patterns emerge, including partial agreement which includes first conjunct agreement (agreement with the first noun in the coordination phrase), second conjunct agreement (agreement with the second noun in the coordination phrase), closest conjunct agreement (agreement with the noun in the coordination phrase that is closest to the verb) and full agreement with a plural default class, which in many languages is sensitive to animacy, as the usual default agreement classes tend to be classes 8 or 10 (which are noun classes associated with inanimates).

In Chiyao, when a coordinated NP consists of human nouns from different classes, animate concord is required. Example (45) illustrates animate concord with human nouns from class 5, *likumbiidi* 'drunkard', and class 7, *chilundamisi* 'last initiate'. Although the subject nouns are from different classes, and only *chilundamisi* would normally take animate concord, subject agreement is from class 2, which is the corresponding plural class for class 1.

(45a) *Li-kumbiidi* *ni* *chi-lundamisi* *a-ku-um-an-a*.
5-drunkard and 7-first_initiate SM2-PRES-fight-REC-FV
'A drunkard and a last initiate are fighting'
(45b) **Li-kumbiidi* *ni* *chi-lundamisi* *i-ku-um-an-a*.
5-drunkard and 7-first_initiate SM8-PRES-fight-REC-FV
'A drunkard and a last initiate are fighting.'

When a human noun is coordinated with another human noun that would normally take class concord rather than animacy agreement, plural animate agreement is also required (Example 46a), while default agreement is ungrammatical (Example 46b). This is shown in Example (46a), where the conjoined subject from classes 1, *mchanda* 'boy' and 5, *livelu* 'fool' take class 2 agreement.

(46a) *M-chanda ni li-velu a-ku-sosa mbiya.*
1-boy and 5-fool SM2-PRES-look_for 9.money
'A boy and a fool are looking for money.'
(46b) **M-chanda ni li-velu i-ku-sosa mbiya.*
1-boy and 5-fool SM8-PRES-look_for 9.money
'A boy and a fool are looking for money.'

Conjoined human nouns in object position show a somewhat different pattern and induce AC or first conjunct agreement, as in Example (47a). Here, the plural form is ungrammatical (Example 47b). This means that while conjoined human NPs in subject position take agreement from class 2, those in object position only allow first conjunct agreement.

(47a) *A-m-pele mbiya m-chanda ni li-velu*
SM1-OM1-give.PST 9.money 1.boy and 5-fool
'He/she gave money to the boy and the fool.'
(47b) *A-va-pele mbiya m-chanda ni li-velu
SM1-OM2-give.PST 9.money 1.boy and 5-fool
'He/she gave money to the boy and the fool.'

When noun phrases that combine humans with other types of animates are coordinated in Chiyao, animacy agreement is optional for subjects (Example 48). However, when a human and an inanimate are coordinated, agreement has to be with the closest (or second) conjunct, irrespective of animacy (Example 49).

(48a) *M-chanda ni ng'ombe a-kw-ik-a.*
1-boy and 9-cow SM2-PRES-come-FV
'A boy and a cow are coming.'
(48b) *Mu-ndu ni ng'ombe i-ku-utuk-a.*
1-person and 9-cow SM8-PRES-run-FV
'A person and a cow are running.'
(Taji & Mreta, 2014: 85)

(49a) *Va-ndu ni ma-chungwa i-potel-e.*
2-person and 6-orange SM8-become_lost-PERF
'People and oranges are lost.'
(Taji & Mreta, 2014: 85)
(49b) *Ma-chungwa ni va-ndu a-potel-e.*
6-orange and 2-person SM2-become_lost-PERF
'Oranges and people are lost.'
(49c) **Va-ndu ni ma-chungwa a-potel-e.*
2-person and 6-orange SM2-become_lost-PERF
Int: 'People and oranges are lost.'

When the coordinated nouns are non-human animates, default agreement with class 8 is preferred for subject agreement, as in (50).

(50) *Li-jani ni chi-suvi i-ku-um-an-a.*
5-monkey and 7-fleopard SM8-PRES-fight-REC-FV
'A monkey and a leopard are fighting.'

When the coordinated NP consisting of a non-human animate and an inanimate noun from different classes occupies the object position, agreement is based on the noun phrase closest to the verb regardless of whether it is animate or inanimate (Taji & Mreta, 2014). Therefore, we can generalise that conjoined NPs use first conjunct agreement in Ciyao, irrespective of animacy (Example 51).

(51a) *A-ku-ji-sosa ng'ombe ni li-jela*
SM1-PRES-OM9-look_for 9.cow and 5-hoe
'He/she is looking for a cow and a hoe.'
(51b) *A-ku-li-sosa li-jela ni ng'ombe*
SM1-PRES-OM5-look_for 5-hoe and 9.cow
'He/she is looking for a hoe and a cow.'

Discussion and conclusions

Based on the findings analysed above, three types of patterns can be established for what determines the choice between AC and CC in Chiyao. The first is that the choice between AC and CC is motivated by morphological considerations, particularly noun class membership. For example, while animate nouns from classes 1, 1a, and 2 strictly take class 1/2 concord (which in this case cannot be identified as either AC or CC since both patterns would be the same), animate nouns from classes 5/6 and 7/8 strictly take class concord, while those from classes 9 and 14 optionally take AC (unless they are insects or tiny fish). Morphological patterns also appear to determine which nouns referring to animals can show animacy agreement when personified in stories by being morphologically shifted to class 1a.

The second type of pattern is semantically based. In this case, nouns from different classes show the same type of agreement because they refer to entities with similar semantic attributes. Evidence for this comes from nouns denoting small animals, which are mainly found in classes 9/10 and 14. Regardless of their noun class membership, these nouns strictly take class concord, while nouns denoting large animals from the same classes induce both AC and CC. This seems to suggest that the physical dimensions of the referent trigger different agreement patterns. This observation contrasts with the pattern in Ndengeleko where semantic factors have been reported to have no influence on the choice between AC and CC (Ström, 2012).

The third type of pattern is based on pragmatic or sociocultural factors. This pattern is exemplified by nouns denoting people with socially unacceptable behaviour taking class concord regardless of their noun class membership. This pattern has been illustrated with class 5 nouns *lisabada* 'prostitute' and *likumbiidi* 'drunkard', which both denote undesirable behaviour among the Chiyao-speaking community. These contrast with the nouns *nachilongola* 'first initiate', *chilundamisi* 'last initiate' which are not associated with negative behaviours and trigger animate concord.

Finally, coordinated noun phrases show a complex set of patterns where animacy, word order and type of agreement matter. For reasons of space, we do not discuss all possible combinations here and leave this matter for further study. We conclude that the Chiyao animacy agreement patterns discussed here are a complex phenomenon based on a combination of morphosyntactic, as well as semantic and pragmatic properties (or social aspects of language use). Further study of how these patterns behave in different discourse settings would add to our understanding of Chiyao grammar.

Notes

[1] Bantu languages are commonly classified with Guthrie codes. We include the Guthrie code for each language, based on Maho (2009), at the first mention.

[2] Gloss abbreviations and style in examples from other sources have been adjusted for consistency. Abbreviations are used in glosses and text (numbers refer to noun class/person).

AC	animate concord
ASSOC	associative
CAUS	causative
CC	class concord
CL	noun class
CONS	consecutive
DEM	demonstrative
DJ	disjoint
FUT	future
FV	final vowel
HAB	habitual
INF	infinitive
LOC	locative
NEG	negation
OM	object marker
PERF	perfective
PL	plural
POSS	possessive
PRES	present tense
PRO	pronoun
PST	past
REC	reciprocal
REFL	reflexive
REL	relative marker
S/SG	singular
SM	subject marker
STAT	stative
SUBJ	subjunctive

[3] Chiyao and Kiswahili data where no source is indicated reflect the judgements of the second author.

[4] This does not apply to other types of derived nouns, such as agentives.

[5] The subject is clear from the previous discourse to be *bugha* 'hare' (class 5).

[6] There are no morphological singular/plural markings on these nouns in Chiyao (see Table 1).

[7] This is a common tendency in narrative discourse, where animals are assigned human characteristics.

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References

Aissen J. 2003. Differential object marking: Iconicity vs. economy. *Natural Language and Linguistic Theory* 21(3): 435–483. https://doi.org/10.1023/A:1024109008573

Contini-Morava E. 2008. Human relationship terms, discourse prominence, and asymmetrical animacy in Swahili. *Journal of African Languages and Linguistics* 29(2): 127–171. https://doi.org/10.1515/JALL.2008.008

Corbett GG. 1979. The agreement hierarchy. *Journal of Linguistics* 15(2): 203–224. https://doi.org/10.1017/S0022226700016352

Corbett GG. 2006. *Agreement*. Cambridge: Cambridge University Press.

Corbett GG, Mtenje A. 1987. Gender agreement in Chichewa. *Studies in African Linguistics* 18(1): 1–38. https://doi.org/10.32473/sal.v18i1.107479

Givón T. 1970. The resolution of gender conflicts in Bantu conjunction: When syntax and semantics clash. In: *Papers from the Sixth Regional Meeting of the Chicago Linguistics Society, April 16–18 1970,* 250–261.

Hyman LM, Duranti A. 1982. On the object relation in Bantu. In: Thompson SA, Hopper P (eds), *Studies in Transitivity.* New York: Academic Press. pp 217–239.

Katamba F. 2003. Bantu nominal morphology. In: Nurse D, Philippson G (eds), *The Bantu Languages*. London: Routledge. pp 103–120.

Maho JF. 2003. A tentative model for the diachrony of grammatical gender in Bantu languages. In: Lébikaza KK (ed.), *Actes du 3e congrès mondial de linguistique africaine Lomé 2000* [Proceedings of the 3rd international conference on African linguistics – Lomé]. Köln: Rüdiger Köppe Verlag. pp 281–295.

Maho JF. 2009. *NUGL Online The online version of the New Updated Guthrie List, a referential classification of the Bantu languages*.

Marten L. 2000. Agreement with conjoined noun phrases in Swahili. *Afrikanistische Arbeitspapiere* 64(Swahili Forum VII): 75–96.

Marten L. 2005. The dynamics of agreement and conjunction. *Lingua* 115(4): 527–547. https://doi.org/10.1016/j.lingua.2003.09.014

Marten L, Edelsten P, Gibson H, Guérois R. 2018. Bantu Morphosyntactic Variation Database. https://bantu.soas.ac.uk/

Mitchley H. 2015. Agreement and coordination in Xitsonga, Sesotho and isiXhosa: An optimality theoretic perspective. Master's thesis. Rhodes University, Makhanda/Grahamstown, South Africa.

Ngunga ASA. 1997. Class 5 allomorphy in Ciyao. *Studies in African Linguistics* 26(2): 165–192. https://doi.org/10.32473/sal.v26i2.107392

Odden DA. 1996. *The Phonology and Morphology of Kimatuumbi*. New York: Clarendon Press.

Pesetsky J. 2019. Animacy is a presupposition in Swahili. In: Clem E, Peter Jenks P, Sande H (eds), *Theory and description in African Linguistics: Selected papers from the 47th annual conference on African linguistics*. Berlin: Language Science Press. pp 555–570. https://doi.org/10.5281/ZENODO.3367185

Riedel K. 2009. The syntax of object marking in Sambaa: A comparative Bantu perspective. PhD thesis. University of Leiden, the Netherlands.

Riedel K. 2021. Animacy in Bantu syntax. Unpublished manuscript. University of the Free State, South Africa.

Ström EM. 2012. The increasing importance of animacy in the agreement systems of Ndengeleko and other Southern Coastal Bantu languages. In: Svantesson J-O, Burenhult N, Holmer A, Karlsson A, Lundström H (eds), *Special Issue on Humanities of the lesser-known: New directions in the description, documentation and typology of endangered languages and musics*. London: EL Publishing. pp 265–287.

Taji J. 2017. The morphosyntactic and semantic properties of grammatical relations in Chiyao. PhD thesis. University of Dar es Salaam, Tanzania.

Taji J. 2020. Verb stem influence on object marking in Chiyao. *Southern African Linguistics and Applied Language Studies* 38(4): 351–365. https://doi.org/10.2989/16073614.2020.1859942

Taji J, Mreta A. 2014. Subject-verb agreement in Chiyao conjoined noun phrases. *Journal of Linguistics and Language in Education* 8(2): 78–88.

Wald B. 1975. Animate concord in Northeast Coastal Bantu: its linguistic and social implications as a case of grammatical convergence. *Studies in African Linguistics* 6(3): 267–314.