# Subject-Verb Agreement in Chiyao Conjoined Noun Phrases

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## Abstract

*This paper discusses different strategies for establishing concord with conjoined noun phrases in Chiyao (P.21), a cross-border Bantu language spoken by about three million people scattered in five countries of eastern and southern Africa. The findings reveal that various options are available in Chiyao for showing concord in conjoined noun phrases (NPs\*). These include the use of default agreement markers a- (class 2) for human nouns, and i- (class 8) for non-human nouns; the use of an agreement marker of the noun closest to the verb, as a default strategy for locative and post-verbal conjoined noun phrases; taking an agreement marker from a human noun in cases where the conjunct involves a human and a non-human noun; and opting for a compound sentence, thus avoiding the conjoined construction. The paper is organized into six sections. The first section introduces the problem and provides background information to the language and its speakers. The second section presents the methodological issues of the study. The third section discusses subject-verb agreement strategies in Chiyao. The fourth section presents a brief review of previous works on conjoined noun phrases in Bantu. The fifth section discusses different strategies for establishing concord with conjoined noun phrases in Chiyao, and the last section provides a conclusion.*

**Key words**: *Chiyao, conjoined noun phrase, concord*

## Introduction

It has been observed by scholars that, in many Bantu languages, when nouns are conjoined to form a grammatical unit, the choice of the subject concord to be marked on the verb becomes difficult, especially when the

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\* Abbreviations:

| | | | | | |
|---|---|---|---|---|---|
| FV | Final vowel | NCP | Noun class prefix | PERF | Perfective |
| NP | Noun phrase | OM | Object marker | PRES | Present |
| PAST | Past | PASS | Passive | RECP | Reciprocal |
| SC | Subject concord | STAT | Stative | | |

two nouns belong to different classes (Maho, 1999; Katamba, 2003). Numerous studies have been conducted to examine this problem in some Bantu languages including Swahili (Marten, 2000), Mwera (John, 2010), Chichewa (Corbett & Mtenje, 1987), and Luganda (Wechsler, 2009). These studies have generally revealed that languages employ different strategies to establish subject concord with conjoined noun phrases. This paper discusses different strategies of subject marking in conjoined noun phrases in Chiyao.

Chiyao is a cross-border Bantu language which is spoken by about three million people scattered in five countries of eastern and southern Africa, namely Tanzania, Mozambique, Malawi, Zambia and Zimbabwe (Ngunga, 2002). The language has also been referred to as Ciyao (Ngunga, 2002), Ciyawo (Dicks & Dollar, 2010), and Yao. In Tanzania, where this study was conducted, the language is mainly spoken in the southern regions of Ruvuma (Tunduru District) and Mtwara (Masasi District). It is estimated that 416,802 people in these two regions speak Chiyao as their first language (LOT, 2009). In Guthrie's (1948) classification of Bantu languages, the language is grouped in zone P and is coded P.21 along with Shimwela (P.22) and Chimakonde (P.23). With the exception of a study by Whiteley (1966), there has not been any other serious linguistic study focusing on the Tanzanian variety of Chiyao. Largely, the existing literature on Chiyao is based on studies conducted in Mozambique and Malawi, where the language is used in the media and taught in schools. Therefore, the literature on the Tanzanian variety of Chiyao is still scanty and this calls for more systematic studies to examine different linguistic aspects of the Chiyao variety spoken in this country.

## Methodology

Data for the study were collected through grammaticality judgment method. This is a technique whereby the informant is made to produce forms in his or her native language and then asked to decide which sentences are acceptable, which are not, and what exactly is wrong with those that are not (Vaux & Cooper, 1999). Through this technique, fifty sentences with conjoined NPs were constructed by the researcher and they were then presented to five informants who were asked to eliminate the ones which are acceptable from the ones which are not acceptable. They informants were also required to give reasons behind their judgments. Each of the five informants was consulted individually but the results were then merged for consistency. The five informants were from Lulindi village, a typical Chiyao speaking community in Masasi district.

### Subject –Verb Agreement in Chiyao

The noun in Chiyao comprises two important elements: a noun class prefix (NCP), and a stem. Like in other Bantu languages, the NCP is a portmanteau morpheme which provides information about class, number, and person (Maho, 1999:55) as shown in example (1) below:

(1)   ***chi-***   *teengu*
      7NCP- chair
      'A chair'

When the noun is used as a subject in a sentence, there must be a subject marker attached to the verb to show concord as shown in (2) below:

(2)   ***chi-*** *teengu*   ***chi-*** *tem-eche*
      7-chair   7SC- break- PERF
      'A chair is broken.'

The subject markers in Chiyao fall into two major categories, namely primary subject markers and secondary subject markers. Primary subject makers are those which copy the phonological shape of the noun class prefix. These are subject markers for classes 5, 7, 8, 11, 12, 13, 14, 15, 16, 17, and 18. On the other hand, secondary subject markers use an affix which does not resemble the noun class prefix. These include subject markers for classes 1, 2, 3, 4, 6, 9 and 10. Table (1) presents the Chiyao noun classes and the subject concord markers.

### Table： Chiyao Noun Classes and Subject Concord Markers

| Class | Prefix | SC | Example |
|---|---|---|---|
| 1 | *mu-* | *a-* | *mundu aiche* 'a person has come' |
| 2 | *va-* | *a-* | *vandu aiche* 'persons have come |
| 3 | *m-* | *u-* | *mpaamba unsomile* 'an arrow has pierced me' |
| 4 | *mi-* | *i-* | *mipaamba insomile* 'arrows have pierced me' |
| 5 | *li-* | *li-* | *lijela likutopa* 'the hoe is heavy' |
| 6 | *ma-* | *ga-* | *majela gakutopa* 'hoes are heavy' |
| 7 | *chi-* | *chi-* | *chipuula chikutema* 'the knife is sharp' |
| 8 | *i-* | *i-* | *ipuula ikutema* 'knives are sharp' |
| 9 | *N* | *ji-* | *njipi jikuluma* 'a louse is biting' |
| 10 | *N* | *si-* | *njipi sikuluma* 'lice are biting' |
| 11 | *lu-* | *lu-* | *lukongolo lutemeche* 'the leg is broken' |
| 12 | *ka-* | *ka-* | *katumbili kakulya imanga* 'a small monkey is eating maize' |
| 13 | *tu-* | *tu-* | *tutumbili tukulya imanga* 'small monkeys are |

| Class | Prefix | SC | Example |
|---|---|---|---|
|  |  |  | eating maize' |
| 14 | *u-* | *u-* | *usavi ukuulaga vandu* 'witchcraft kills people' |
| 15 | *ku-* | *ku-* | *kulya kukwanonyela* 'he/she likes eating' |
| 16 | *pa-* | *pa-* | *apano pana lijoka* 'here, there is a snake' |
| 17 | *ku-* | *ku-* | *akuno kwana lijoka* 'in this direction, there is a snake' |
| 18 | *mu-* | *mu-* | *amuno mwana lijoka* 'here, inside, there is a snake' |

No matter whether the noun takes a primary or a secondary subject marker, if it happens that there are two nouns making up a subject, especially when they are from different classes, problems arise with regard to the noun that should be marked on the verb. This complexity is shown in example (3) below:

(3)     *chi- pula ni    li- jela __tem- eche*
        7-knifeand    5-hoe     break-PERF
        'A knife and a hoe are broken.'

In (3) above, the gap preceding the verb *tem- eche* implies that the choice of subject concord is not easy because the subject is made up of two nouns from different classes: *chipuula* 'a knife' (class 7), and *lijela* 'a hoe' (class 5). In order to get an appropriate agreement marker in situations like (3) above, a class-resolving strategy needs to be employed.

### Class-Resolving Strategies in other Bantu Languages

Two common class-resolving strategies to handle coordination of unlike conjuncts have been suggested, namely resolution and partial agreement (Wechsler, 2009). The former involves deriving the agreement features of a coordinate noun phrase on the basis of the features of all the individual conjuncts while the latter involves taking agreement features of one conjunct and ignoring the other(s).

A distinction is also made between syntactic and semantic class resolution (Corbett, 1991). Syntactic class resolution operates according to the gender of the conjoined items irrespective of their meaning, while semantic class resolution involves reference to the meaning of the conjoined elements even if this implies disregard for their class. Both of these strategies are common among Bantu languages as discussed in the following section.

There have been a number of previous studies to explore class resolving strategies in different Bantu languages. A few languages for which we

have succeeded to secure some materials include Swahili, Chichewa, Ndebele, Luganda, and Sambaa.

Marten (2000) argues that, in Swahili, if the conjoined NPs belong to the same singular class, the complex NP typically will agree according to the corresponding plural class and if the conjoined nouns denote human beings, the complex NP will agree according to class 2 (human plural). In other cases, there are two strategies. First, the plural prefix of class 8, *vi-*, might be used as a sort of neutral class as shown in (4). Second, the last NP might trigger the agreement as shown in (5).

(4)     *sabuni     na ma-ji     **vi**-ta-ku-saidi-a*
        10 soap     and    6-water    8SC-future-OM-help-FV
        'Soap and water will help you.'

(5)     *vi-kombe  na zawadi    **zi**-li-tol-ew-a        kwa     wa-shindi*
        8-cups      and    10-presents 10SC-PAST-give-PASS-FV to 2SC-
        winners
        'Cups and presents were given to winners.'

In Chichewa subject verb agreement in conjoined NPs seems to be determined by both semantic and morphological factors. In this language, three types of agreement affixes are used, namely *a-, zi-,* and *ku-* (Corbett & Mtenje, 1987). Each of these affixes has a special context of usage: *a-* is used with human conjuncts (example 6), *zi-* is used with non human conjuncts (example 7), and *ku-* is used with infinitives (example 8).

(6)     *m-kazi     ndi mw-ana   **a**- ku- yend-a*
        1-woman     and    1-child     1SC- PRES- walk-FV
        'The woman and the child are walking.'

(7)     *u-konde    ndi chi-patso  **zi**- ku- bvund-a*
        4-net       and    6-fruit     8SC- PRES- rot-FV
        'The net and the fruit are rotting.'

(8)     *ku-byina ndi  ku-imba   **ku**- ku- chitikira     uko*
        15-dance and 15- sing    15SC- PRES- take place there
        'Dancing and singing are going on there.'

Furthermore, conjoined structures involving the locative classes are unacceptable, unless all are from classes 9 and 10 which use the forms *mu-* and *ku-* respectively, and that conjoined structures involving noun phrases denoting humans and non-humans are unacceptable.

The Chichewa case above does not differ much from Luganda where the common tendency is to use the corresponding plural agreement for conjuncts of the same noun class and, when the conjuncts differ in noun class, a noun class 1/2 is used as a resolution class for humans (example 9), while noun class 7/8 is used for non-humans (example 10). This applies irrespective of the noun classes of the conjuncts (Wechsler, 2009).

(9)  *ek-kazi,  aka-ana  ne olu-sajja  **ba**-alab-w-a*
     5-fat woman  12-small child and    11-tall man    2SC- see –PASS-FV
     'The fat woman, small child, and tall man were seen.'

(10) *en-te,  omu-su, eki-be    ne ely-ato    **bi**-alab-w-a*
     9-cow 3-wildcat 7-jackal   and   5-canoe    8SC- see –PASS-FV
     'The cow, the wildcat, the jackal, and the canoe   were    seen.'

Sambaa allows only two agreement strategies, namely the use of the corresponding plural class, and the use of default agreement marker (class 8) (Riedel, 2010). This is shown in the following examples:

(11) *Shimba    na  kui vi-i-lal-iye*
     9-lion and    5-dog  8SM-PERF-sleep-PERF
     'The lion and the dog slept.'

(12) *Shimba na     kui wa-i-lal-iye*
     9-lion  and 5dog   2SM-PERF-sleep-PERF
     'The lion and the dog slept.'

Unlike most Bantu languages, Sambaa does not allow partial agreement, i.e. neither first nor second conjunct agreement is allowed (Riedel, 2010). So, examples (13) and (14) below are ill-formed because the first one takes the agreement marker from the first noun while the second example takes the agreement marker from the second noun.

(13) *\*Shimba  na  kui i-i-lal-iye*
     9-lion and    5-dog 9SM-PERF-sleep-PRF
     'The lion and the dog slept.'

(14) *\*Shimba  na  kui ji-i-lal-iye*
     9-lion  and 5-dog 5SM-PERF-sleep-PRF
     'The lion and the dog slept.'

It seems clear from this brief review that languages employ different class resolving strategies with conjoined noun phrases, although some of the

strategies seem to be more common than others. The most common strategies are the use of the corresponding plural class and the default agreement class, while the use of the first or second conjunct seems to be more language specific. It is on the basis of these variations in class resolving strategies among languages that this paper is developed in order to uncover the strategies used in Chiyao since they might not be the same as the ones used in the languages reviewed above.

## Class-Resolving Strategies Used in Chiyao

Chiyao employs several strategies to establish concord with conjoined noun phrases. For easy of analysis, we divide the conjoined noun phrases in Chiyao into five major categories, namely conjuncts denoting human entities; human and non-human entities; locative nouns; non-human nouns; and infinitives. Each of these categories is discussed here below.

## Conjuncts Denoting Humans

These are conjoined noun phrases which are made up of human entities. In most cases, the human nouns are found in class 1. When these nouns are conjoined to form one NP, the class 2 subject marker *a-* is used to show concord as shown in (15) below:

(15)   *m-kamusi ni  mw-ali    **a**-kw-aul-a*
       1-patron   and   1-initiate  2SC-PRES- go-FV
       'A patron and an initiate are leaving.'

It is interesting to note that even when the conjoined NP is made up of human nouns from two different classes, the class 2 agreement marker is still used as a default agreement marker as shown in examples (16-18) below:

(16)   *jwa-mkoongwe    ni    mw-enye **a**-kw-eend-a*
       1a-woman     and    1-chief    2SC-PRES-walk-FV
        'A woman and a chief are walking.'

(17)   *m-chanda ni  va-nache  **a**-li apala*
       1-boy      and    2-infant      2SC-be there
       'A boy and an infant are there.'

(18)   *li-velu ni  jwa-wiyi  **a**-ku-meny-an-a*
       5-fool  and 1a-thief 2SC- PRES –fight- RECP-FV.
       'A fool and a thief are fighting.'

This seems to suggest that, when nouns denoting human entities are conjoined, it is the semantic features of a noun which trigger verb concord, not morphological features.

## Conjuncts Denoting Humans and Non-Humans

When a human noun is conjoined with a non-human noun to form an NP, there are three strategies which are commonly employed. The first strategy involves marking a human noun in the verb by using a class 2 agreement marker *a-*, ignoring a non-human noun (19-20). The second strategy involves the use of the class 8 agreement marker *i-* (21-22), and the third strategy involves avoiding a conjoined construction and opting for a compound sentence (23).

(19)    *mu-ndu    ni  li-vaata    **a**-ku-utuk-a*
         1-person   and   5-duck      2SC-PRES-run-FV
         'A person and a duck are running.'

(20)    *m-chanda ni  ng'ombe    **a**-kw-ik-a*
         1-boy      and  9-cow        2SC-PRES-come-FV
         'A boy and a cow are coming.'

(21)    *va-ndu     ni   ma-chungwa **i**-potel-e*
         2-people   and   6-oranges      8SC-get lost-PERF
         'People and oranges are lost.'

(22)    *mu-ndu     ni  ng'ombe   **i**-ku-utuk-a*
         1-person   and  9-cow       8SC-PRES- run-FV
          'A person and a cow are running.'

 (23)    *mu-ndu    **a**-potel-e        ni  ma-chungwa **ga**-potel-e*
         1-person   2SC get lost-PERF    and    6-oranges 6SC get lost

         PERF

         'A person is missing and oranges are missing.'

These findings contrast the findings in Chichewa where Corbett and Mtenje (1987) observed that conjoined structures involving noun phrases denoting humans and non-humans are unacceptable and that, in such cases, speakers prefer to use comitative constructions.

## Conjuncts Denoting Locative Nouns

Like in many other Bantu languages, locative nouns in Chiyao are found in classes 16 *pa-*, 17 *ku-* and 18 *m(u)-*. When nouns from these classes are

conjoined, the noun which is closest to the verb is the one which is subject marked on the verb. In (24) below, the NP is made up of a class 18 and a class 16 noun, but the verb contains a class 16 subject marker simply because it is closest to. The same is true with (25) where the class 18 noun is subject marked, leaving the class 16 which is far from the verb. In this case, the principle which I call 'adjacency to the verb' seems to apply. This contradicts the findings in Sambaa (Riedel, 2010) where a subject marker cannot be taken from one of the nouns in a conjoined noun phrase.

(24)   *m-kati    ni  pa-asa    **pa**-na     chi-tukuta*
       18-inside  and    16-outside 16SC-there is 7-hotness
       'It is hot inside and outside.'

(25)   *pa-asa    ni    m-kati  **mw**ana   chi-tukuta*
       16 outside and  18-inside 18SC-there is      7-hotness
       'It is hot outside and inside.'

### Conjuncts Denoting Non-human Nouns

If the subject is made up of two or more non-human nouns, there are three options for showing concord with the verb. The first option involves the use of a class 8 agreement marker *i-* (26–27). The second option involves the use of the corresponding plural class. This works for conjuncts containing class 9 animate nouns, whose corresponding plural is the class 10 agreement marker *si-* (28), and the third option involves the use of the agreement marker *ga-*. This is employed when conjoined nouns are from classes 5 and 6 (29).

(26)   *chi-jiko    ni  m-eza     **i**-tem-ech-e*
       7-spoon     and   3-table   8SC-break-STAT-FV.
       'A spoon and a table are broken.'

(27)   *lw-aau     ni  chi-puula **i**-pile   moto*
       11-net      and   7-knife    8SC- burn-fire
       'A net and a knife are burnt.'

(28)   *m-busi     ni  n-gondolo **si**-ku-ly-a     ma-saamba*
       9-goat      and   9-sheep   10SC-PRES-eat-FV  6-grass
       'Goats and sheep are eating grass.'

(29)   *ma-gombo ni  ma-peeta **ga**-pi-ile*
       6-banana and    6-yam       6SM-cook-PERF
       'Bananas and yams are cooked.'

## Conjuncts Denoting Infinitives

In Bantu, the infinitives are regarded as nouns because they can trigger concord with the verb just like other nouns. In Chiyao noun class system the infinitive nouns are found in class 15. When a conjoined noun phrase is made up of the infinitive nouns, a default class 8 subject marker *i* is used as shown in (30–31) below:

(30)　*kw-imba　ni　ku-tyala　i-ku-salala*
　　　　15-sing　and　15-dance　8SC- PRES- good
　　　　'Singing and dancing are good.'

(31)　*ku-lola　i-dewo　　ni　ku-lya　　i-ku-n-nonyela*
　　　　15-watch 8-video　and　15-eati　8SC-PRES-OM-like
　　　　'I like watching videos and eating.'

## Agreement with Post-verbal Conjoined Noun Phrases

In some cases, the subject may be postposed to occur after the verb. In such cases, Chiyao employs only one strategy to establish concord; the verb has to agree with the first noun. Here again, it should be noted that the principle of adjacency to the verb is in operation. The first noun is made to agree with the verb simply because it the one which is closer to the verb. In (32) below, the verb takes a class 5 agreement marker *li-* from a class 5 noun *lisimba* which is closer to it, ignoring the class 7 noun *chisuvi*. When the sentence is twisted (33), the verb is marked with a class 7 agreement marker *chi-*.

(32)　*li-w-ile　　　li-simba　ni　chi-suvi*
　　　　5SC-die-PERF　5-lion　　and　7-leaopard
　　　　'A lion and a leopard are dead.'

(33)　*chi-w-ile　　chi-suvi　ni　li-simba*
　　　　7SC-die-PERF　7-leopard　and　5-lion
　　　　'A leopard and a lion are dead.'

## Conclusion

It is clear from the foregoing discussion that Chiyao is particularly rich in class resolving strategies with conjoined noun phrases. Unlike other languages like Sambaa (Riedel, 2010) and Ndebele (Wechsler, 2009) which have only two strategies each, Chiyao has four strategies. The first strategy is the use of the corresponding plural class which in most cases include the class 2 agreement marker *a-* (for human nouns), and a class 8 agreement marker *i-* (for non-human nouns). These two are regarded as default agreement markers. The second strategy is the use of an agreement marker of the noun closest to the verb. This is used as a default

strategy for locative and post-verbal conjoined noun phrases. The third strategy involves taking an agreement marker from a human noun in cases where the conjunct involves a human and a non-human noun. Finally, in cases where all other strategies fail, Chiyao speakers opt for compound sentences, thus avoiding conjoined constructions.

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