# Agreement with Conjoined Noun Phrases in Swahili[*]

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## 1. Introduction

The aim of this paper is to show that Swahili has several strategies to resolve verbal agreement with conjoined noun phrases. In section 2, I give a brief summary of the situation as depicted in grammatical descriptions of Swahili. I then present a number of examples – mainly taken from Muhammed Said Abdulla's (1976) novel *Mwana wa Yungi hulewa* – illustrating different strategies of agreement with conjoined NPs. In section 4, I present an analysis of one of the strategies discussed and argue that the choice of different strategies is not only based on dialect or speaker variation, but rather can be related to information structure and the dynamics of interpretation.

## 2. Background

The verb in Swahili agrees with its subject and, in certain contexts[1], with its object by taking a concord morpheme of the appropriate class:

(1)     *m-kate  u-me-anguka*
        3-bread SCD3-PERF-fall
        'The bread has fallen'

(2)                 S

        Subject         Verb
        Class 3         Subject Concord Class 3
        *mkate*         *umeanguka*

The verb in (1) agrees with the subject *mkate* in that the subject concord of the verb, *u-*, is of the same class, Class 3, as the subject. This is more schematically expressed in the structure tree in (2). In addition to subject and object agreement, elements of the noun phrase may agree with the head noun. However, I am here mainly concerned with agreement shown on the verb. In particular, I explore the question of what happens when the subject (or object) does not unambiguously belong to one class, as in the case of conjoined noun phrases such as in (3):

(3)     ??*m-kate na siagi*      ___*-me-anguka*
        3-bread and 9.butter     ___PERF-fall
        Int.: 'The bread and the butter have fallen'

Since the subject in (3), *mkate na siagi*, consists of two nouns, it is not obvious which subject concord may be chosen in the slot indicated. Before discussing my own findings, I present

[1] As will be further discussed below, object agreement is mandatory with NPs denoting animate referents. The structure of object agreement with NPs denoting non-animate referents is more complex.

three representative descriptions of agreement with conjoined NPs in Swahili, taken from Ashton (1944), Schadeberg (1992) and Krifka (1995).

**2.1. Ashton (1944)**
Ashton (1944: 311) observes that:

> A verb having as its subjects two or more nouns of different classes takes vi- as its concord, if the nouns are names of concretes. Sometimes the verb agrees with the last-named noun, especially if it is an abstract noun.

She provides the following examples to illustrate these points[2]:

(4)  *Mkewe akamwuliza, Jinsi gani Bwana, nguo zako na farasi viko wapi?*
'His wife asked him, "How now, Bwana, where are your clothes and your horse?"'
[10 + 9 = 8]

(5)  *Tumetendewa heshima kubwa na wema mkubwa, usio na kifani.*
'We were shown unparalleled courtesy and kindness.'
[9/10 + 11 = 11]

(6)  *Naona ama wema huu na hisani hii hainenekani wala kupimika.*
'As for the goodness and kindness (shown us), I feel it can be neither expressed in words nor measured.'
[11 + 9 = 9]

The first example shows that the conjoined subject *nguo zako na farasi*, consisting of one class 10 and one class 9 noun triggers class 8 agreement on the copula, which illustrates the first strategy that a conjoined NP of nouns from different classes take class 8 concord[3]. Examples (5) and (6) illustrate the second strategy, whereby the verb agrees with the second conjunct, *wema* and *hisani* respectively, of the conjoined NP.

**2.2. Schadeberg (1992)**
Schadeberg (1992: 22) describes slightly different strategies:

> When a verb form has to agree with a conjoint noun phrase consisting of two singular nouns belonging to the same two-class gender, the agreement is with the plural class of that gender. Several strategies exist for other constellations. Some speakers prefer cl. 8 agreement in all such cases, for others it is cl. 10, and still others use the plural class of the gender of the noun closest to the verb form – or simply its class in case of a noun belonging to a one-class gender. The most common strategy, however, is to avoid such constructions altogether.

The first strategy identified by Schadeberg concerns conjuncts of the same singular class, where the verb shows the corresponding plural agreement. The second strategy corresponds to the one mentioned by Ashton, namely that conjuncts of different classes trigger concord of a

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[2] Examples from secondary sources are given as in the original, including translation and glosses throughout. I have added the classes of the conjuncts and the concord of the verb in square brackets.

[3] The example also shows that nouns with animate referents can be used with this strategy, since the class 9 noun *farasi* has an animate referent, and would normally take class 1/2 agreement.

default class, namely class 8, or, as Schadeberg adds, for some speakers class 10. The third strategy differs slightly from Ashton's characterization. According to Schadeberg, the verb may agree with the closest conjunct, which is of course the second conjunct if the conjoined NP precedes the verb (this is probably the case Ashton had in mind), but it will be the first conjunct in a situation where the conjoined NP follows the verb. Furthermore, Schadeberg notes that, except for one-class gender nouns, agreement will be with the corresponding plural class of the closest conjunct. Finally, Schadeberg notes that agreement with conjoined NPs is often avoided. However, he does provide the following examples:

(7)     *misaada na mikopo vitahatarisha uhuru wetu*
        gifts and loans will endanger our independence
        [4 + 4 = 8]

(8)     *fedha na wakati tunaotumia*
        money and time which we spend"
        [9/10 + 11 = 11]

(9)     *jembe na mkuki aliyokuwa nayo*
        the hoe and the spear he had
        [5 + 3 = 4 or 6]

Example (7) illustrates default class 8 agreement. Example (8) shows agreement with the second conjunct, the class 11 noun *wakati*, of a preceding conjoined NP. Note that surface order precedence seems to be the relevant level to determine closeness to the verb, since the conjoined NP is not the subject but the relativized object of the verb and hence presumably underlyingly following the verb. Finally, the example in (9) can be interpreted in two ways, since the referential concord marker *-yo-* can refer either to a class 4 or a class 6 antecedent. In the former case, the verbal construction shows agreement with the plural of the closest conjunct, in contrast to Ashton's example (6), above, where the verb agrees with the second conjunct despite the fact that it is a class 9 (i.e. singular) noun. In the latter case, (9) would be an example of default class 6 agreement[4].

    With respect to the usage of the different strategies, Schadeberg mentions, in addition to the difference between paired and one-class gender, that difference arise between speakers, as a matter of idiolects.

### 2.3. Krifka (1995)

In Krifka's (1995: 1400) description of the syntax of Swahili, the following passage describes agreement with conjoined NPs[5]:

    The agreement system is confronted with a special problem with conjoined NPs. If the conjoined NPs belong to the same singular class, the complex NP typically will agree according to the corresponding plural class. Furthermore, if they 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

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[4] As will become clear later, I personally think that the second analysis is more plausible. I have, however, found no other example of either agreement with the plural of the closest conjunct, or of default class 6 agreement, so I leave the question open.

[5] Krifka also points out that these strategies pose problems for unification based analyses of conjunction such as adopted in GPSG or HPSG. For reasons of space, I do not discuss different approaches to conjunction or agreement here.

used as a sort of neutral class […]; second, the last NP might trigger the agreement. […]

As illustration, Krifka presents the following examples:

(10)    *Sabuni na maji vitakusaidia*
         'Soap and water will help you'
         [9 + 6 = 8]

(11)    *Vikombe na zawadi zilitolewa kwa washindi*
         'Cups and presents were given to the visitors'
         [8 + 10 = 10]

The first example shows the use of a class 8 subject concord irrespective of the classes of the conjuncts. The second example shows that the verb agrees with the second conjunct.

## 2.4. Summary
Taking an inclusive approach, the following picture emerges for conjoined NP agreement in Swahili from the descriptions discussed in this section[6]:

*Strategies for agreement with conjoined NPs*
- corresponding plural class agreement (with conjuncts of the same class)
- default class 8 or class 10
- agreement with the second conjunct (if the conjoined NP precedes the verb)
- agreement with the first conjunct (if the conjoined NP follows the verb)
- avoid agreement with conjoined NPs

*Variation according to*
- speaker or dialect
- semantics of NPs (concrete/abstract)

In the following sections, I illustrate these strategies further and show that a more detailed analysis leads to some modifications.

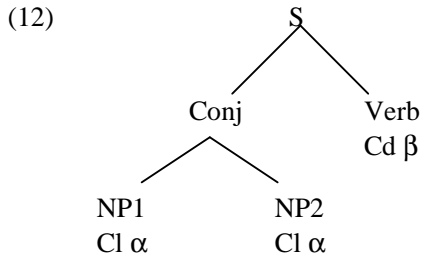## 3. Morphological, anaphoric and syntactic agreement
The strategies for agreement with conjoined NPs discussed above can be divided into three categories which I will call morphological, anaphoric, and syntactic agreement according to which level of structure is the interesting one. The first of these I will only treat briefly, but the second two strategies will be discussed in more detail. The discussion is based mainly on examples found in Muhammed Said Abdulla's (1976) novel *Mwana wa Yungi hulewa*, to which I have sometimes added my own data.

## 3.1. Morphological Agreement
Under morphological agreement I include the strategy by which two nouns of the same class trigger the corresponding plural concord on the verb. This strategy makes use of the singular-plural pairing of noun classes which is part of Swahili grammar, presumably as morphological

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[6] Excluding evidence from the ambiguous example (9).

rule, independently of agreement with conjoined NPs. Schematically, morphological agreement can be represented as follows:

(12)

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                      S
                     / \
                    /   \
                 Conj    Verb
                 /  \     Cd β
                /    \
              NP1    NP2
              Cl α   Cl α
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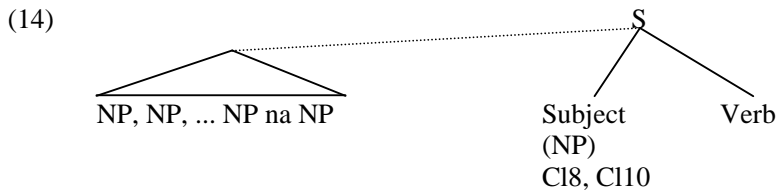Where β is the plural class corresponding to α.

Although both Schadeberg (1992) and Krifka (1995) mention morphological agreement as an option for agreement with conjoined NPs, examples are not too easy to find, except for class 1 nouns in examples such as (13):

(13)     *Mw-alimu na mw-anafunzi w-ake wa-li-kuja*
         1-teacher and 1-student Cd1-his SCd2-past-come
         'The teacher and his student came'

However, for nouns of classes higher than 1, I have not found an example for morphological agreement. I will discuss the status of class 1/2 nouns further below, and conclude this section by noting that morphological agreement might not be such a prominent option for agreement with conjoined NPs as seems to be implied in the literature.

### 3.2. Anaphoric Agreement

I use the term anaphoric agreement as contrasting with grammatical agreement in the sense of Bresnan & Mchombo (1986). The idea is that in anaphoric agreement the NP and the verb agree in a way similar to a pronoun agreeing with a preceding NP, but not as a reflex of a structural, e.g. subject-verb, relation. With respect to conjoined NPs, default agreement with class 8 or 10 is, I propose, of this type of agreement. In other words, a conjoined NP with a class 8 subject concord is not the structural subject of the sentence, but rather an adjunct, to which an 'empty' nominal subject anaphorically refers:

(14)

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                                          S
              _____............./ \
             /    |    \               /   \
            /     |     \           Subject  Verb
          NP, NP, ... NP na NP       (NP)
                                     Cl8, Cl10
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Examples of anaphoric agreement are the following:

(15)     *… kisu na mkono wake Amanullah vyote vimeloa damu, …*
         '… Amanullah's knife and arm were all soaked in blood, …'
         (Muhammed Said Abdulla 1976: 74)
         [7 + 3 = 8]

(16)　*… – mede, mede; makochi; viti, viti; meza, meza; makabati, na mataa ya mathurea yenye vigae vinavyotoa mwanga wa rangi namna kwa namna mithili ya almasi – vyote hivyo vilienea katika chumba kile.*
　　'… – seats, seats, couches, chairs, chairs, tables, tables, cupboards, and chandellier lamps with droplets giving light of different colours like a diamond – all these were spread across the room.'
　　(Muhammed Said Abdulla 1976: 61)
　　[9/10, 6, 8, 8, 9/10, 9/10, 6, + 6 = 8]

Both these examples provide evidence for the assumption that the syntactic subject is in fact an empty nominal head, because both involve the adjective *vyote*. While verbal agreement with conjoined NPs is – as shown in this paper – possible, adjectives and demonstratives are never found modifying a conjoined NP:

(17)　*mi-ti na ma-tunda ma-zuri*
　　4-trees and 6-fruit 6-beautiful
　　'trees and beautiful fruits'

(18)　*\*mi-ti na ma-tunda vi-zuri*
　　4-trees and 6-fruit 8-beautiful
　　trees and fruit beautiful

(19)　*mi-ti mi-zuri na ma-tunda ma-zuri*
　　4-trees 4-beautiful and 6-fruit 6-beautiful
　　'beautiful trees and fruit'

The example in (17) shows that the adjective *mazuri* modifies only the second conjunct. The ungrammatical (18) shows that anaphoric agreement with class 8 is not possible with adjectives. Finally, (19) shows adjectival modification of conjoined nouns can best be achieved by modifying each conjunct individually. The same point is illustrated by the following example:

(20)　*"Spekta Seif", aliita Bwana Msa, "acha tuendelee na mazungumzo yetu na mjadala wetu."*
　　"Inspector Seif", said Bwana Msa, "let us continue with our conversation and our discussion".
　　(Muhammed Said Abdulla 1976: 69)

The use of two possessive pronouns in (20) shows that noun modifiers do not modify conjoined NPs. For the examples (15) and (16), above, this means that *vyote* does not modify the conjoined NPs, but rather that it modifies, and agrees with, an empty nominal head.

　　Further evidence for agreement with empty heads comes from headless genitive and relative constructions:

(21)　*Bwana huyu hana la kusema.*
　　man this not.have 5.poss to.say
　　'This man has nothing to say'

(22)　*Lisilokuwapo moyoni halipo machoni*
　　'That which is not in one's heart is not in one's eye-sight.'
　　cf. Out of sight out of mind.
　　(Proverb and translation from Farsi 1958: 20)

Both (21) and (22) show class 5 agreement-morphology without an overt head noun. The understood head in these constructions is usually assumed to be a noun belonging to the class of the agreement morphemes, in the cases shown above probably *jambo*, 'matter', or, in (21), *neno*, 'word'. In both cases, the semantic content of the empty head is thus greater, that is, more specific, than merely pronominal. Similarly, I propose that in cases of anaphoric agreement, the head is semantically more specific than merely pronominal, rather, it functions as a supernym to the members of the conjoined NP. Thus, in cases of class 8 agreement, the verb is agreeing with an empty head noun such as *vitu*, 'things', summarizing the elements listed in the conjoined NP. This empty head noun may equally well be a class 10 noun, as shown in the example below[7]:

(23)  *Juu ya hayo, nadhani, pambo la nyumba, vifaa, zana na samani mbalimbali ziliweza kuumeza au kuupoteza utupu wa nafasi kubwa  ile – ...*
      'In addition, I think, the features of the house, fittings, furniture, and various ornaments were able to swallow and disperse the emptiness of this big space – …'
      (Muhammed Said Abdulla 1976: 61)
      [5, 8, 9/10 + 9/10 = 10]

The analysis of these cases of agreement as anaphoric agreement is further supported by examples of a similar type, involving a conjoined NP, where, however, an overt head noun is found:

(24)  *Na kwa nini lazima amchome kisu cha mgongo ulioko nyuma, na uso, mabega, kifua, tumbo – sehemu zote hizi zilikuwa ndizo za karibu.*
      'And why should he stab him with the knife in the back, which was behind, while face, shoulders, chest and stomach – all these parts were indeed closer.'
      (Muhammed Said Abdulla 1976: 118)
      [11, 6, 7, 5 = sehemu zote]

(25)  *Tunaweza kuikisia hali ya Sichana aliyoishi nayo kutwa ile Jeejee bado hajarudi nyumbani. Mashaka, mashumushumu, wasiwasi, kiherehere, fadhaa, hofu – hali zote hizo zilipigania utawala wa roho yake kwa wakati mmoja!*
      'We can guess at the state Sichana was living in that day when Jeejee had not yet returned home. Uncertainty, foreboding of evil, doubts, anxiety, agitation and fear – all those feelings were fighting each other for the upper hand in her mind at the same time.'
      (Muhammed Said Abdulla 1976: 110/111)
      [6, 6, 9/10, 7, 9/10, 9/10 = hali zote]

In these two examples, an overt noun functions syntactically as subject of the verb, and semantically as supernym of the conjoined NP very much like I have proposed for the empty nominal in anaphoric agreement constructions.

A final example shows that anaphoric agreement relations of a similar kind can be maintained across syntactically complex structures:

(26)  *... kisha aondoke ajishughulishe kwa hili na hili, bali yote ni upuzi.*
      … so that finally she should go and occupy herself with this and that, but it is all nonsense.
      (Muhammed Said Abdulla 1976: 70)

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[7] Alternatively, the verb may be analysed as agreeing with the last member of the conjoined NP.

In the example in (26), the adjective *yote*, showing class 6 agreement, refers back to the conjoined NP *hili na hili*. Since adjectives do not modify conjoined NPs, and since the two elements are separated by a clause boundary, the agreement relation cannot be structural. Rather, an empty noun, semantically corresponding to *mambo*, is the head of the adjective and the anaphor of the conjoined NP.

In this section, I have shown that agreement with conjoined NPs involving the 'default' agreement elements of class 8 and 10 are instances of anaphoric agreement, as opposed to true grammatical subject-verb (or object-verb) agreement. The analysis is supported by the fact that adjectives do not agree with conjoined NPs, yet are found in anaphoric agreement cases, and that Swahili permits headless structures freely. The analysis furthermore brings out the parallelism between anaphoric agreement with conjoined NPs on the one hand, and 'resumptive' cases with a lexically overt head noun functioning as syntactic subject of the verb and as semantic supernym of the conjoined NP on the other.

## 3.3 Syntactic Agreement

In this section I discuss examples where the verb agrees with only one conjunct. The selection of the conjunct which triggers verbal agreement can only be made with reference to the position of the conjoined NP in its clause, in particular its relation to the verb. If the conjoined NP precedes the verb, agreement will be with the last conjunct (27a). If the conjoined NP follows the verb, agreement will be with the first conjunct (27b). In other words, in cases of syntactic agreement the verb agrees with the closest conjunct:

(27)       a)       b)
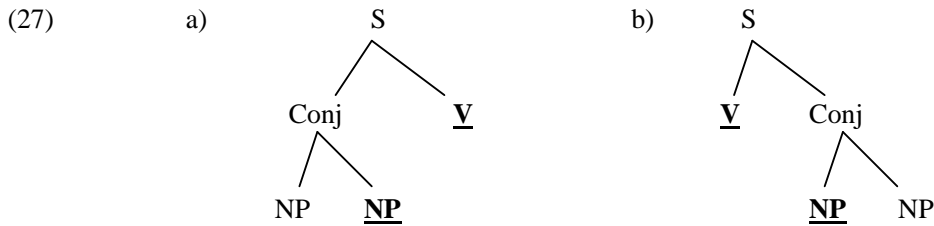
The schematic representation shows that in syntactic agreement, the verb agrees not with the whole conjoined NP, but with the closest conjunct. I discuss the two cases, last conjunct agreement and first conjunct agreement in turn.

## 3.3.1. Last Conjunct Agreement

In last conjunct agreement cases, conjunct agreement obtains between the second (or last) conjunct of preceding conjoined NP and a verb. Last conjunct agreement is more common than first conjunct agreement – in fact all examples presented in Ashton (1944) and Schadeberg (1992) discussed above are of this type. As the following examples show, last conjunct agreement can be found with all classes and it may involve concrete as well as abstract nouns[8]:

(28)       *Mguu wa meza na kiti kimevunjika*
         3.leg of table and 7.chair 7.be broken
         'The leg of the table and the chair are broken'
         (Bokamba 1985: 45)
         [3 + 7 = 7]

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[8] Example (29) may equally be analysed as default class 10 agreement.

(29)     *… kwani huoni wewe kuwa kisu na nguo zimeshabihiana …?*
         '… why, don't you see that the knife and the clothes are alike …?'
         (Muhammed Said Abdulla 1976: 96)
         [7 + 9/10 = 10]

(30)     *… na hata mkono wake na mkono wa koti lake pia umepata damu hiyo.*
         '… and even his arm and the sleeve of his jacket got some of this blood.'
         (Muhammed Said Abdulla 1976: 122)
         [3 + 3 = 3]

(31)     *… kiwiliwili chake chote na miguu yake iko ndani chumbani …*
         '…his whole body and his legs are inside the room…'
         (Muhammed Said Abdulla 1976: 74)
         [7 + 4 = 4]

(32)     *Lakini hekima ile na mkasa ule haukuachiwa kupita bila kutaaradhiwa na Mwanatenga.*
         'But this wisdom and this event were not left to pass by without Mwanatenga's questioning'
         (Muhammed Said Abdulla 1976: 113)
         [9 + 3 = 3]

The relevant conjuncts in these examples include nouns denoting concrete inanimates (28), (29), and (30) and body parts (31) in addition to the abstract noun *mkasa* (32). Interestingly, examples of last conjunct agreement with class 1/2 are hard to come by. In fact, speakers seem to agree on the following contrast:

(33)     *Haroub na Naila wa-li-kuja*
         Haroub and Naila SCd2-past-come
         'Haroub and Naila came'
         [1 + 1 = 2]

(34)     *\*Haroub na Naila a-li-kuja*
         Harou and Naila SCd1-past-come
         Int.: Haroub and Naila came'
         Int.: [1 + 1 = 1]

Thus, while last conjunct agreement is an option in Swahili grammar, it cannot be used with human referents. The special status of human referents in Swahili has often been observed, in particular in relation to object marking (see e.g. Wald 1993). However, as will be seen below, there is more to this point with respect to conjunct agreement.


### 3.3.2. First Conjunct Agreement
The complement of second conjunct agreement is first conjunct agreement, where the conjoined NP follows the verb, as is shown in the following examples:

(35)     *Bibie Shali aliposikia jina la Soarez likitajwa kilimjia kizuli na kiwewe kwa ghafla; …*
         'When Bibie Shali heard Soarez' name mentioned, she suddenly felt dizziness and confusion…'
         (Muhammed Said Abdulla 1976: 103)
         [7 = 7 + 7]

(36)    *Hapo hapo, mbio mbio, aliitia fremu na picha ya Muhammad Ali chini ya godoro ...*
        'There and then, quickly she pushed the frame and the picture of Muhammad Ali under the mattress…'
        (Muhammed Said Abdulla 1976: 70)
        [9 = 9 + 9]

The two examples show clearly that the relevant relation for conjunct agreement is surface adjacency since the conjoined NP in (35) is a postposed subject, while the one in (36) is the object of the verb. In both cases, the concord belongs to a singular class (class 7 and class 9 respectively), agreeing with a singular conjunct[9]. While the conjunct in (35) is abstract, (36) shows that first conjunct agreement is possible with concrete conjuncts. In contrast to last conjunct agreement, first conjunct agreement is possible with class 1/2 nouns:

(37)    *Na matukio – sisemi madhumuni – ya kumfunga Jeejee na Sichana pamoja, kisha nikawahawilishia juzi ile kuja kukaa huku pamoja na sisi, utayaona siku mbili hizi hizi.*
        'And the result of – I am not saying the intention for – tying Jeejee and Sichana together, up to allowing them the other day to come and stay here with us, you will see it in the next couple of days.'
        (Muhammed Said Abdulla 1976: 57)
        [1 = 1 + 1]

(38)    *Bwana Msa, alipoinuka, jambo la kwanza alimwomba Bibie Shali na jamaa wote ruhusa ya kuachiwa huru kuvuta kiko chake.*
        'Bwana Msa, when he got up, the first thing he asked of Bibie Shali and the whole company was the permission to be left at liberty to smoke his pipe.'
        (Muhammed Said Abdulla 1976: 103)
        [1 = 1 + 2]

In (37), the verb *kumfunga* has a class 1 object concord agreeing with the conjoined NP *Jeejee na Sichana*. That the whole conjoined NP is the object of the verb is supported by the presence of the adverb *pamoja*, 'together', which requires a plural antecedent. The analysis of (37) as involving first conjunct agreement is further confirmed by the subsequent anaphoric reference to the conjoined NP by the plural class 2 object concord in *nikawahawilishia*. Similarly, (38) shows that the object of the verb *omba* is the conjoined NP *Bibie Shali na jamaa wote*, yet the object concord is class 1.

        Further evidence for the difference between second and first conjunct agreement with respect to human referents is provided by the following example which shows that first conjunct agreement is also possible with participant markers:

(39)    *Unakumbuka yale maneno nilivyokwambia siku ile pale njiani  nilipokukuta wewe na Najum, nikakwambieni mnifuate tulipokwenda kule Vuga nyumbani kwa Jeejee – unakumbuka nilivyokwambia? ...*
        'Do you remember those words which I told you that day on the street when I met you and Najum, and told you to follow me and we went over to Vuga to the house of Jeejee – do you remember what I told you?'
        (Muhammed Said Abdulla 1976: 124)
        [2nd sg. = 2nd sg. + 1]

In (39), the 2nd person singular object concord agrees with the conjoined NP *wewe na Najum*, which subsequently shows plural agreement (*nikakwambieni mnifuate*).

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[9] It is interesting to note that both examples involve conjuncts belonging to the same singular class. The significance of this fact remains to be ascertained.

The hypothesis that first conjunct agreement is possible with human referents is further confirmed by the following acceptable examples:

(40)    *Wa-li-kuja Haroub na Naila*
         SCd2-past-come Haroub and Naila
         'Haroub and Naila came'
         [2 = 1 + 1]

(41)    *A-li-kuja Haroub na Naila*
         SCd1-past-come Haroub and Naila
         'Haroub and Naila came'
         [1 = 1 + 1]

(42)    *Wa-li-po-kuja Haroub na Naila, mama yao alikuwa ameshaondoka*
         SCd2-past-rel-come Haroub and Naila, mother their was had.left
         'When Haroub and Naila came, their mother had already left'
         [2 = 1 + 1]

(43)    *A-li-po-kuja Haroub na Naila, mama yao alikuwa ameshaondoka*
         SCd1-past-rel-come Haroub and Naila, mother their was had.left
         'When Haroub and Naila came, their mother had already left'
         [1 = 1 + 1]

The examples show that agreement with a following conjoined NP may be singular. The examples with first conjunct agreement (41) and (43) thus contrast minimally with example (34), above, which shows the ungrammaticality of last conjunct agreement with animate NPs.

Thus, in contrast to last conjunct agreement, first conjunct is possible with human referents, including both class 1/2 nouns and participants.


### 3.4. Summary
The discussion so far has shown that there are three main strategies to determine agreement with conjoined NPs in Swahili. Morphological agreement makes use of the singular-plural pairing of most noun classes, but is, except for class 1/2, the least favoured strategy with respect to the examples discussed here. The most common strategy with non-animate nouns is anaphoric agreement involving a possible empty head noun. Syntactic agreement constitutes the third alternative and furthermore reveals an interesting asymmetry between last conjunct agreement, which is impossible with animate nouns, and first conjunct agreement, which is acceptable with animate nouns. It is this asymmetry which is the subject of the following section.


### 4. Linear Order
Asymmetric agreement of the kind found with animate nouns in Swahili, where agreement is sensitive to the position of the conjoined NP with respect to the agreeing verb, is found in a number of typologically diverse languages and has been discussed from a number of theoretical perspectives (see e.g. Aoun et al 1994, Sadler 2000, Munn 1999, Johannessen 1996). In this section, I propose an analysis of this asymmetrical behaviour which emphasizes the linear order in which information is presented to hearers in conversation, and the incremental nature in which they built interpretations from words in context, following the arguments in presented in Kempson et al. (2000) and Marten (1999).

The main argument I propose is that in the cases where the conjoined NP precedes the verb, the agreement refers to information which is already available (namely the information

from the conjoined NP), and functions to 'match' this information with a specific role in the overall interpretation. On the other hand, in cases where the verb precedes the conjoined NP, agreement poses a requirement on the subsequent development of the interpretation, but it does not register information which is already available. Rather, agreement in these cases merely anticipates information yet to come. However, the requirement on expected information may be weaker than the information eventually presented. Hence agreement with only the first conjunct is possible (which fulfils the requirement), since information from the second (or more) conjunct merely adds information. The following two sections present this approach in more detail.

## 4.1. Conjoined NP – Verb Order

The structural difference between the two different orders can be illustrated by the incremental growth of syntactic structure in the two cases. Somewhat informally, I assume that every word encountered in an utterance contributes to the overall structural representation of the sentence. The following (partial) tree structures are thus meant to illustrate how a hearer builds increasingly larger syntactic structures from the words encountered until a complete sentence is established.

The relevant case is the example in (33), repeated here for convenience:

(33)     *Haroub na Naila wa-li-kuja*
         Haroub and Naila SCd2-past-come
         'Haroub and Naila came'
         [1 + 1 = 2]

As a first step, the noun *Haroub* creates the following situation:
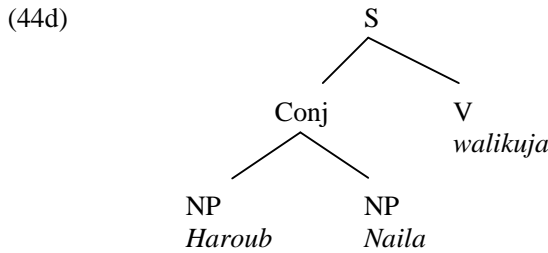
(44a)          NP
               *Haroub*

The introduction of *na* increases the structural representation of the sentence to-be by adding the requirement for another NP:

(44b)                    Conj

               NP                  NP
               *Haroub*            *?*
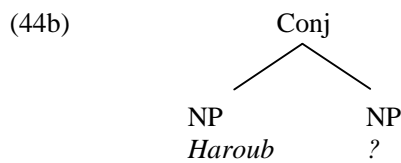
In (44b), the requirement for another conjunct is indicated by '?' at the relevant node. Once the requirement is fulfilled, as for example by *Naila*, the '?' is removed from the tree:

(44c)                    Conj

               NP                  NP
               *Haroub*            *Naila*
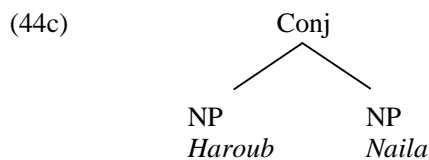
At this stage, the structure for he conjoined NP has been built, but its position in the overall sentence has not yet been established. However, with the introduction of the inflected verb, the conjoined NP can be associated at the subject position. I assume here that the verb in Swahili introduces the overall clausal structure (the 'S' node of the tree) and the subject position:

(44d)

```
                        S
                      /   \
                 Conj       V
                /   \       walikuja
              /       \
            NP         NP
          Haroub      Naila
```

With the introduction of the verb, the conjoined NP is assigned to the subject position and the sentence is complete. What this step-by-step development of sentence structure shows is that by the time the verb is encountered, the conjoined NP has already been built, and the verbal agreement matches the information available, namely that the subject is plural.


**4.2. Verb – Conjoined NP Order**
The second strategy of syntactic agreement, showing first conjunct agreement, is acceptable with animate nouns. This fact can be directly related to the difference of how sentence structure is developed in verb-initial structures.
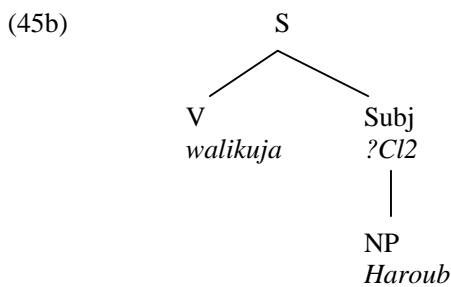        The relevant example (40) is repeated here for convenience:

(40)    *Wa-li-kuja Haroub na Naila*
        SCd2-past-come Haroub and Naila
        'Haroub and Naila came'
        [2 = 1 + 1]

In examples like this, when the verb is encountered as first constituent, the overall sentence structure, including the (post-verbal) subject position, is introduced at the outset of the derivation. The verb shows class 2 agreement, which means that the verb imposes a requirement on the subject that it be of class 2:

(45a)

```
                S
              /   \
            V       Subj
          walikuja  ?Cl2
```
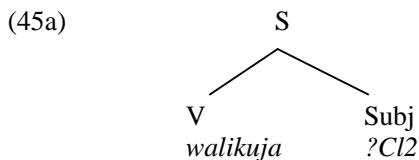
The next word encountered may be associated at the subject node, but it does not by itself fulfill the outstanding requirement:

(45b)

```
                S
              /   \
            V       Subj
          walikuja  ?Cl2
                     |
                     |
                    NP
                  Haroub
```

The following conjunction and the second conjunct are introduced at the subject position, and, since the subject is now plural, the requirement holding at the subject node is, invoking the relevant morphological rule, fulfilled:

(45c)
```
              S
            /   \
           V      Subj
        walikuja   /\
                  NP  NP
               Haroub Naila
```
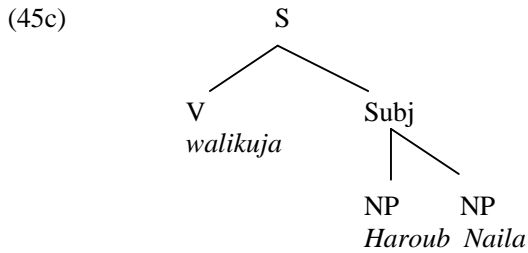
As the preceding steps show, the function of agreement in this example is to require the post-verbal subject to be compatible with class 2, that is, with animacy and plurality.

The second case of post-verbal subject agreement is illustrated by (41), repeated here:

(41)      *A-li-kuja Haroub na Naila*
         SCd1-past-come Haroub and Naila
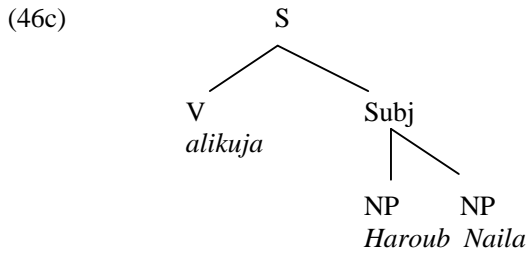         'Haroub and Naila came'
         [1 = 1 + 1]

In this example, the verb agrees only with the first conjunct, which, from the perspective adopted here, is the NP which is introduced first into the derivation, as the following steps show. The initial step is, like in the preceding derivation, the introduction of the clausal structure. However, here the verb introduces a requirement that the post-verbal subject be of class 1:

(46a)
```
              S
            /   \
           V      Subj
        alikuja   ?Cl1
```
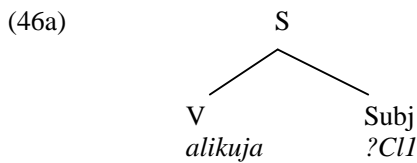
The next step is the introduction of the NP *Haroub* at the subject position:

(46b)
```
              S
            /   \
           V      Subj
        alikuja    |
                  NP
               Haroub
```
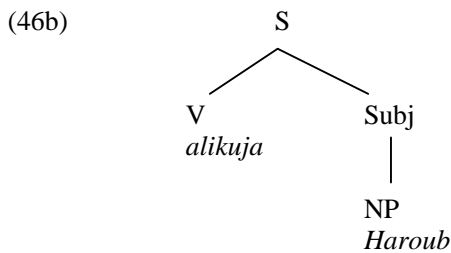
In contrast to the preceding example, the requirement on the subject is fulfilled at this stage, since the subject consists of a class 1 noun. However, there is no problem of introducing further information into this structure. Thus, the conjunction and the following NP result in a sentence with conjoined subject:

(46c)

```
                      S
                     / \
                    /   \
                   V     Subj
                alikuja   / \
                         /   \
                        NP    NP
                      Haroub Naila
```

Thus, the eventual structural representations of verb-initial structures with full (class 2) and first conjunct agreement are identical, merely being different with respect to when in the derivation the requirement imposed by the subject is fulfilled.


## 4.3. Results and Consequences

The contrast between NP-Verb structures, where only full agreement is possible, and Verb-NP structures, where both full and first conjunct agreement is possible, resides, from the perspective adopted here, in the following difference. In the former case, the conjoined NP is available at the time the verb is encountered and the function of the agreement is merely to identify the conjoined NP as subject (or object). In the latter case, the agreement imposes a requirement on the subsequent development of the derivation, but crucially, this requirement can be fulfilled in more than one way, so that both class 1 and class 2 agreement is compatible with conjoined NPs. The syntactic analysis developed in the preceding sections mirrors the more general information-structural and discourse based idea that the asymmetry between NP-Verb and Verb-NP structures results from the asymmetry of information available at a given stage in the derivation.

A remaining question is why the asymmetry holds only for animate nouns, but not for nouns from classes 3 and higher, and in particular, what is the correct analysis of second conjunct agreement. While the ultimate answer to this question remains subject to further research, two observations can be made here. First, as indicated briefly above, there is independent evidence for the special status of agreement with animate nouns, namely from object agreement. While with non-animate nouns, object marking is optional, with animate nouns it is obligatory, indicating that the role of the agreement marking may be different with the two types of nouns. Thus, we would also expect differences in the agreement pattern with conjoined NPs. The overall impression from the data discussed here is that morphological agreement involves predominantly animate nouns, while anaphoric agreement is a strategy widely used for non-animate nouns. It is tempting to think that Swahili has two different agreement systems, and that only syntactic agreement with animate nouns, which shows the asymmetry between verb-initial and NP-initial structures, is an instance of true grammatical agreement, while with non-animate nouns, and last conjunct agreement, some weaker from of agreement relation is involved. However, I leave this question for the future.

Although last conjunct agreement with non-animate NPs is problematic for the syntactic analysis outlined above, the more general idea that agreement reflects information structure is still applicable to non-animate nouns. In particular, it provides an alternative explanation for the distribution of various agreement strategies, in addition to the distinction between concrete and abstract nouns and/or speaker variation discussed above. The following example illustrates this point:

(47)    *Kufika ndani aliitoa fremu na picha ya Muhammad Ali chini ya godoro alikozitia, ...*
        'When she reached inside, she pulled the frame and the picture of Muhammad Ali from under the mattress where she had placed them, …
        (Muhammed Said Abdulla 1976: 70/71)

In this example, the NP *fremu na picha ya Muhammad Ali* is referred to by both first conjunct (*aliitoa*) and anaphoric agreement (*alikozitia*). It thus shows that both strategies are available to the same speaker, and may be used for referring to the same entity. The most relevant criterion for the use of one or the other strategy in cases such as in this example is then linear order, or, more generally, the availability of information at the time the agreeing verb is used.

## 4. Conclusion

The examples presented in this paper reveal that verbal agreement with conjoined NPs in Swahili falls into three different categories which I have called morphological, anaphoric, and syntactic agreement. Furthermore, different patterns are found with animate and non-animate NPs. With respect to syntactic agreement involving animate nouns, I have argued that the asymmetry between NP-Verb and Verb-NP order reflects differences in the availability of the information contributed by the conjoined NP. Although this syntactic approach does not cover last conjunct agreement, which is unacceptable with animate nouns, the underlying idea provides an explanation for the distribution of the different strategies of conjunct agreement.

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