

V-TO-I MOVEMENT IN KISWAHILI

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Introduction

In recent years, the Bantu object affix that is commonly known as the object marker (OM)¹ has attracted considerable debate regarding its status in generative grammar. One view takes the OM to be an incorporated pronoun (see for example, Bresnan and Mchombo 1987; Bresnan 1993). Their analysis is based mainly on the contrast between object marking and subject marking. The subject marker (SM), they point out, behaves as an agreement marker while the object marker behaves like a bound pronoun, freeing the noun from word order restrictions, permitting contrastive focus like a bound pronoun, and permitting non-local anaphoric relations. The other view takes OM to be an agreement marker which licenses a null object (see for example, Bergvall 1987; Kinyalolo 1991; Ngonyani 1996).

In this paper I take the second position and, on the basis of Kiswahili constructions in which the lexical object is not realized, I argue that a null object analysis is consistent with VP ellipsis facts, idiom chunks, and co-occurrence between OM and the lexical object. It is consistent with the general analysis of agreement as instantiation of Spec-Head relation (Chomsky 1986a, Kinyalolo 1991). I demonstrate using the elliptical constructions that the verb moves to an Infl position.

Objects in Kiswahili are realized in the following four forms, in which I use 'ø' to indicate an empty object position.

- (1) a. Mariamu a-li-i-nunu-a *nyumba*
 Mariamu 1SM-PST-9OM-buy-FV 9house
 'Mariamu bought the house'
- b. Mariamu a-li-i-nunu-a ø
 Mariamu 1SM-PST-9OM-buy-FV
 'Mariamu bought it'
- c. Mariamu a-li-nunu-a *nyumba*
 Mariamu 1SM-PST-buy-FV 9house
 'Mariamu bought a house'

¹ Abbreviations:

SM	Subject Marker	OM	Object Marker	PST	Past Tense
FT	Future Tense	FV	Final Vowel	NEG	Negation
INF	Infinitive	LOC	Locative	REL	Relative Marker
V	Verb Stem	Adv	Adverb	AP	Applicative
Obj	Object DP				

- d Mariamu a-li-nunu-a *nyumba?*
 Mariamu 1SM-PST-buy-FV 9house
 'Did Mariamu buy a house?'
 Ndiyo, a-li-nunu-a \emptyset
 Yes, 1SM-PST-buy-FV
 'Yes, she did'

The object in (1a) is realized by the object DP and an object marker, and is understood as a definite object. In (1b) the object marker appears on the verb but there is no object DP after the verb. In contrast, (1c) has the object DP but no object marker, which gives it an indefinite reading of the object. In the second part of (1d), that is the answer to the question, neither the object DP nor the object marker appear. These constructions are all summarized below.

- | | | | |
|-----|---|----------------|-------------|
| (2) | a | OM-V | Obj |
| | b | OM-V | \emptyset |
| | c | \emptyset -V | Obj |
| | d | \emptyset -V | \emptyset |

The objective of this paper is to analyze two object gaps in Kiswahili, one associated with the object marker (2b), and the other not associated with object marking (2d). Using the Principles and Parameters approach, I account for the behavior of the two gaps and show that a VP ellipsis analysis of the gap that is not associated with object marking and an object agreement analysis of object marking is consistent with V-to-I movement of the verb in Kiswahili. The following are the questions guiding the discussion:

- (3) a. What are the syntactic and semantic characteristics of each of these empty categories?
 b. Can the two empty categories get a unified account in the standard typology of empty categories or are they different?
 c. How can these two gaps be represented in a structural configuration?

In the following two sections, I examine the distributional differences between the two ECs and show that they give rise to different interpretations. After examining the differences, I propose a VP ellipsis analysis for the elliptical constructions and an object agreement analysis for object marking consistent with Kinyalolo (1991) in Section 4. In Section 5, I present crosslinguistic features of VP ellipsis drawing examples from English and Brazilian Portuguese. The VP ellipsis analysis as well as the object agreement analysis hinge on raising the verb to an Infl position. The raising hypothesis is supported by VP adverb placement as illustrated in Section 6. The concluding remarks are in Section 7.

Distributional Differences

There is one fundamental distributional difference between the two gaps. The (2b) gap is always an object gap and no constituent, other than objects, can be marked on the verb and leave a postverbal gap. In contrast, the (2d) gap can be associated with constituents other than

objects. Consider the following examples in (4) below, where the (4a) has a non-object complement, while in (4b) this locative complement is omitted.

- (4) a wa-zee wa-li-end-a m-ji-ni
 2-old 2SM-PST-go- FV 3-town-LOC
 'The elders went to town'
- b na vi-jana wa-li-end-a ~~m-ji-ni~~ pia
 and 7-young 2SM-PST-go-FV ~~3-town-LOC~~ too
 'and the youths did too'

In the (b) examples of the following pairs, clausal complements are missing

- (5) a m-kurugenzi a-li-tak-a ku-tembele-a ki-wanda ch-ote
 1-director 1-PST-want-FV INF-visit-FV 7-factory 7-all
 'The director wanted to visit the entire factory'
- b na wa-kuu wa idara wa-li-tak-a ~~ku-tembele-a ki-wanda ch-ote~~ pia
 and 2-boss of 9department 2SM-PST-want-FV INF-walk-AP 7-plant 7-all too
 'and heads of department did too'
- (6) a m-kurugenzi a-li-omb-a wazee wa-tembele-e ki-wanda ch-ote
 1-director 1SM-PST-ask-FV them 2SM-visit-SUBJ 7-factory 7-all
 'The director told them to visit the entire factory'
- b lakini meneja a-li-amuru ~~wa-tembele-e ki-wanda ch-ote~~
 but 1manager 1SM-PST-command 2SM-walk-AP 7-plant 7-all
 'but the manager commanded them'

In (5b) the missing part is an infinitival complement clause while in (6b) a subjunctive clause is missing. These examples show that the gap that is not associated with object marking does not always refer to an object DP. Sometimes it may be a location as (4) or a clausal complement as in (5) and (6). These missing constituents cannot be marked as objects on the verb.

I refer to the gap in (2b) as the object gap, because it is used exclusively for objects, and the gap in (2d) as an elliptical gap because it involves ellided complements of different types. Note that, although many of my examples of elliptical gaps are found in coordinate structures, the gaps appear in other constructions such as subordinate clauses, and as answers to questions as in (1d). The subordinate structures are exemplified in the following sentence.

- (7) ni-ta-som-a vi-tabu vy-ote kama mw-alimu a-ta-som-a pia
 I-FT-read-FV 8-book 7-all if 1-teacher 1SM-FT-read-FV
 'I will read all the books if the teacher will read too'

In this sentence, the elliptical gap is found in the subordinate clause (the *if*-clause)

From the various examples, we can see that although object gaps and elliptical gaps may appear in similar environments, such as in answers to questions, in coordinate structures and in subordinate constructions, there is one fundamental distributional difference which distinguishes them: The fact that object gaps are found in object positions and are marked on

the verb with an object marker. The elliptical gaps, however, are found in positions of objects, clausal complements, and all other complements of the verbs

Differences in Interpretation

Another difference between the object gaps and elliptical gaps is that when the latter is associated with a missing object containing a possessive pronoun, the missing object may get an ambiguous interpretation. Such ambiguity is not available for object gaps. The following examples illustrate the ambiguous interpretation of an elliptical gap involving an object

- (8) a Juma a-li-beb-a mi-zigo y-ake
 Juma 1SM-PST-carry-FV 4-luggage 4-his
 'Juma carried his luggage'
- b na Jamila a-li-beb-a pia
 and Jamila 1SM-PST-carry-FV too
 'and Jamila did too'
- i. =Jamila carried Juma's luggage
 ii =Jamila carried Jamila's luggage

In (8b), there is neither object marking nor lexical object, which is why there are two possible interpretations of the missing object. In the first interpretation (8bi), the object gap has as its antecedent the object in (8a). This object contains a possessive pronoun which is bound by the subject. Thus the first interpretation involves the subject of the previous clause binding the possessive pronoun in both the overt object phrase of (8a) and the missing object of (8b). The second possible interpretation involves the subject of the second clause (8b) binding into the non-overt object deriving the sloppy identity 8bii)

Such ambiguity is not available for object gaps where no sloppy identity interpretation is possible. This is illustrated in the following example which is constructed to resemble (8) above

- (9) a Juma a-li-i-beb-a mi-zigo y-ake
 Juma 1SM-PST-4OM-FV 4-luggage 4-his
 'Juma carried his luggage'
- b na Jamila a-li-i-beb-a pia
 and Jamila 1SM-PST-4OM-carry-FV too
 'and Jamila did too'
- =Jamila carried Juma's luggage
 =*Jamila carried Jamila's luggage

In these example, the object marker is used in order to ensure that the gap in the second conjunct is bound by the overt object in the first conjunct. An interpretation in which the missing possessive pronoun is bound by the subject of the second conjunct (i.e the sloppy identity interpretation) is not available. This invites the questions: why is there such a

difference and how can these differences be represented in a structural configuration? These are questions which are addressed in the analysis

Before attempting an analysis of the two gaps, let me point out similar phenomena in English. English does not have object gaps, which I characterized as appearing in constructions with object marking, since English does not have object marking. The asymmetry between the object gap and elliptical gap, however, parallels an asymmetry in English between a construction with an object pronoun and VP ellipsis construction. The following examples illustrate this.

- (10) a John taught his children and Peter taught them too
 =Peter taught John's children
 *=Peter taught Peter's children
 b John taught his children and Peter did too
 =John taught John's children and Peter taught John's children
 =John taught John's children and Peter taught Peter's children

In (10a), the pronoun in the object DP receives only one interpretation, the same as the Kiswahili example in which there is object marking on the verb (9b). In contrast, (10b) where there is no object pronoun in the second conjunct, two interpretations are possible, the same as the elliptical case of Kiswahili in (8b) above.

Another parallel contrast is found in the use of idiom chunks. Idiom chunks cannot be pronominalized, as the following examples from English illustrate.

- (11) a The president pays lip service to the people
 b *The president pays *it* to the people
 c The ruling party took advantage of the confusion in the opposition
 d *The ruling party took *it* of the confusion in the opposition

Pronominalization of the object in the idiom results in ungrammatical sentences as (11b,d) show. This same property holds in Kiswahili where object marking together with postverbal gap is a form of pronominalization in Kiswahili. It is the means of identifying the silent object, as the following example shows.

- (12) a Ni-ta-jeng-a hekalu kwa siku tatu
 I-FT-build-FV 5temple 17-a 9day 9three
 'I will build a temple in three days'
 b Ni-ta-li-jeng-a kw-a siku tatu
 I-FT-5OM-build-FV 17-a 9day 9three
 'I will build it in three days'

The only pronoun for the object *hekalu* (temple) is the silent object which is identified by the OM (12b). The identity of the object is recoverable from the ϕ -features of the OM. These facts make one prediction: Idiom chunks cannot be realized as OM - \emptyset since idiom chunks cannot pronominalize. Indeed this is what we find in the following examples where the objects of the idiom chunks are indicated by italics.

- (13) a *dada a-li-pig-a simu*
 sister 1SM-PST-hit-FV 9-telephone
 '(my) sister called'
- b **dada a-li-i-pig-a*
 sister 1SM-PST-9OM-hit-FV
 '(my) sister called'
- c *Mumbi a-li-kul-a ki-apo*
 Mumbi 1SM-PST-eat-FV 7-oath
 'Mumbi took the oath'
- d **Mumbi a-li-ki-l-a*
 Mumbi 1SM-PST-7OM-eat-FV
 'Mumbi took the oath'

Pronominalization of the 'phone' in the idiom results in an ungrammatical sentence (13b). The same holds for the pronominalization of the 'oath' part (13d).

Although the object idiom cannot be realized by an object gap, it can disappear under VP ellipsis:

- (14) a *dada a-li-pig-a simu na mama a-li-pig-a pia*
 sister 1SM-PST-hit-FV 9-telephone and mother 1SM-PST-hit-FV also
 'My sister called and my mother did too.'
- b *Mumbi a-li-kul-a ki-apo na Njoroge a-li-kul-a pia*
 Mumbi 1SM-PST-eat-FV 7-oath and Njoroge 1SM-PST-eat-FV also
 'Mumbi took the oath and Njoroge did too.'

In these two sentences, the second conjuncts contain the gaps in object positions. These examples are not consistent with the behavior of pronouns but appear to be similar to VP ellipsis. In the following section I provide a structural analysis of the two gaps.

Analysis

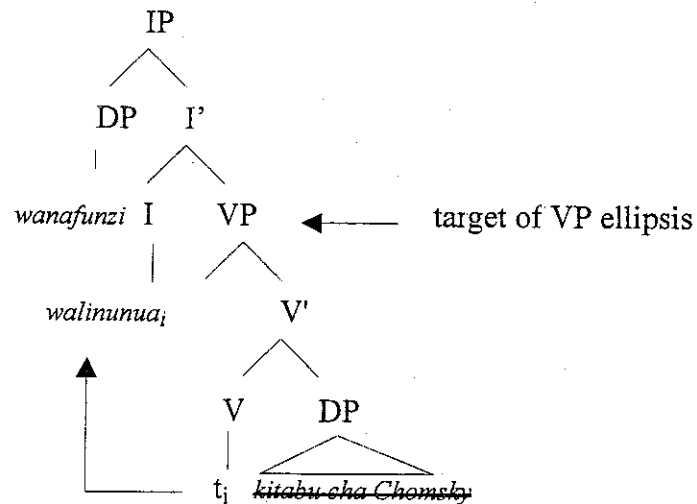
Any analysis of the two gaps in Kiswahili must address at least the following three issues. First, what is the structure of the elliptical construction and what is the structure of the construction which has the object gap? Secondly, the analysis must account for the similarities found between Kiswahili and other languages, such as English, where, as we saw above, similar effects are available for slightly different environments. Thirdly, it must provide a unified account of object marking (OM) for object gaps as well as OM with an overt object.

I suggest that the elliptical gaps be analyzed as VP ellipsis similar to the VP analysis of similar phenomenon in Irish done by McCloskey (1991). This analysis was first proposed for Kiswahili in Ngonyani (1996) where the object gaps were discussed. I will present the analysis and discuss how the differences with object gap constructions arise. Later, I will motivate this analysis.

VP ellipsis in Kiswahili targets the VP constituent at spell-out. On the surface, the verb appears because it moved out to an Infl position before spell-out. The following diagram illustrates how the VP ellipsis construction may have been derived.

- (15) a. na wa-nafunzi wa-li-nunu-a pia.
and 2-student 2SM-PST-buy-FV too
'and students did too'

b



The object DP is marked with a strikethrough to indicate it is not pronounced. As a consequence of the movement of the verb to an Infl position, the direct object has disappeared and there are no remnant features that identify the object. As a result of raising to Infl, only the verb appears as a remnant of the VP because it has moved out of the VP before the deletion.

The crucial question here is whether the object marker is the pronoun as Bresnan and Mchombo (1987) and Bresnan (1993) have proposed or if it is an agreement marker that is linked to a null object, a *pro* as Bergvall (1987), Kinyalolo (1991) and Ngonyani (1996) suggest. What is clear is that OM + \emptyset exhibit pronominal features. If OM is analyzed as an incorporated pronoun, the object gap must be a trace which is bound by OM. Such an analysis is in direct conflict with another part of the data, namely, cases in which both the lexical object and OM appear. In such instances, there is no empty category bound by OM. It would appear that OM binds the lexical object in such cases in violation of Principle A of the binding conditions which requires a referring expressions to be free. It will also be a violation for Principle B which requires a pronoun to be free in its binding category (Chomsky 1986b).

I will therefore consider the object gap, not the object marker, as the pronoun. The object marker is only an agreement marker which instantiates the relationship of a head and the specifier, in this case the object (Kinyalolo 1991). The object may be lexically realized, as in cases where both the object and OM appear, or it may be a phonologically null object, as in the object gap constructions.

There are at least four arguments in support of this analysis. The first argument is that such an analysis provides a unified account not only of all occurrences of OM, but also to SM. An

agreement analysis of OM and SM as proposed by Kinyalolo (1991) and Carstens and Kinyalolo (1989) provides such a simple account in which both OM and SM are instances of Spec-Head relations. In the case of OM, the ϕ -features of the object are mapped onto a head realized as the verb stem. The SM, on the other hand, is in the specifier of IP. Object marking involves other discursual functions which are not relevant for this discussion. For example, as in many other Bantu languages, human objects trigger object marking. Specific and definite objects also require object marking.

Once more, the object marker appears in both constructions as indicated below.

- (16) a Mariamu a-li-i-nunu-a *nyumba*
 Mariamu 1SM-PST-9OM-buy-FV 9house
 'Mariamu bought the house'
- b OM-V Obj
- c Mariamu a-li-i-nunu-a \emptyset
 Mariamu 1SM-PST-9OM-buy-FV
 'Mariamu bought it'
- d OM-V \emptyset

To characterize the object markers in the two sentences as different requires a more complex explanation to distinguish one from the other and to state conditions in which each is found. An account that analyzed OM and SM as instances of Spec-Head agreement (Chomsky 1986a; Koopman 1992; Kinyalolo 1991) is much more elegant and adequate.

The second argument in favor of an agreement analysis is that if we regard the object marker in (12a) as a pronoun, it means we have both the DP binder of the pronoun and the pronoun (OM) in the same domain. This violates Principle B of Binding Theory which requires that a pronoun be free in its domain (Chomsky 1986b). If we regard the object marker as an agreement marker, however, we get a simple unified analysis of OM with an object DP, and OM with the object gap. In the former, we have the ϕ -features of the object such as number, person, gender, and Case shared by the object DP and the OM.² In the other case where we do not get an object DP in postverbal position, we have a *pro* which again shares the same ϕ -features with the OM. Since the OM is only an agreement marker, the appearance of both the OM and the object DP in the same domain does not violate any binding principle.

The third reason for regarding OM as an agreement marker is that pronouns are by definition in complementary distribution with the DPs they replace. Since object markers can cooccur with their DPs, they cannot be pronouns.

² The object case can be seen when we contrast the OM with the SM as in the following example:
 mwalimu a-li-m-fundish-a m-zee
 1-teacher 1SM-PST-1OM-teach-FV 1-old person
 'the teacher taught the old man/woman'
 Notice that the subject prefix for the first person singular is *a-*, but for the first person singular object the affix is *-m-*.

The fourth argument is based on idiom chunks. In Section 3, I used idiom chunks to show that there is an object pronoun in object gap constructions. I showed that in English, idiom chunks cannot be pronominalized, and in Kiswahili idiom chunks cannot be realized in the form of an object marker and an object gap. My position as stated here is that the object marker is an agreement marker and not the pronoun. This predicts that in Kiswahili it is possible to have idiom chunks with the object realized in postverbal position together with an object agreement marker. Bresnan and Mchombo (1987) propose to analyze the object marker as the pronoun. They argue that when the object marker appears with the object, the object is a non-argument topic, focus, or adjunct. For them the object marker is always an incorporated pronoun. The prediction with respect to idiom chunks is that since object marking is pronominalization, and object chunks cannot be pronominalized, we should never find any object marking in idioms. This prediction is not borne out as the following examples show.

- (17) a. *ku-m-pak-a m-tu ma-futa kwa m-gongo wa chupa*
 INF-1OM-smear-FV 1-person 6-oil with 3-back of 9bottle
 to rub oil on someone with the back of a bottle
 'to flatter someone'
- b. *U-ta-ki-on-a ki-li-cho-m-nyo-a kanga ma-nyoya*
 You-FT-7OM-see-FV 7SM-PST-7REL-shave-FV 1guinea fowl 6-feather
 You will see what removed the feathers of a guinea fowl (from the neck)
 'You will be in deep trouble'

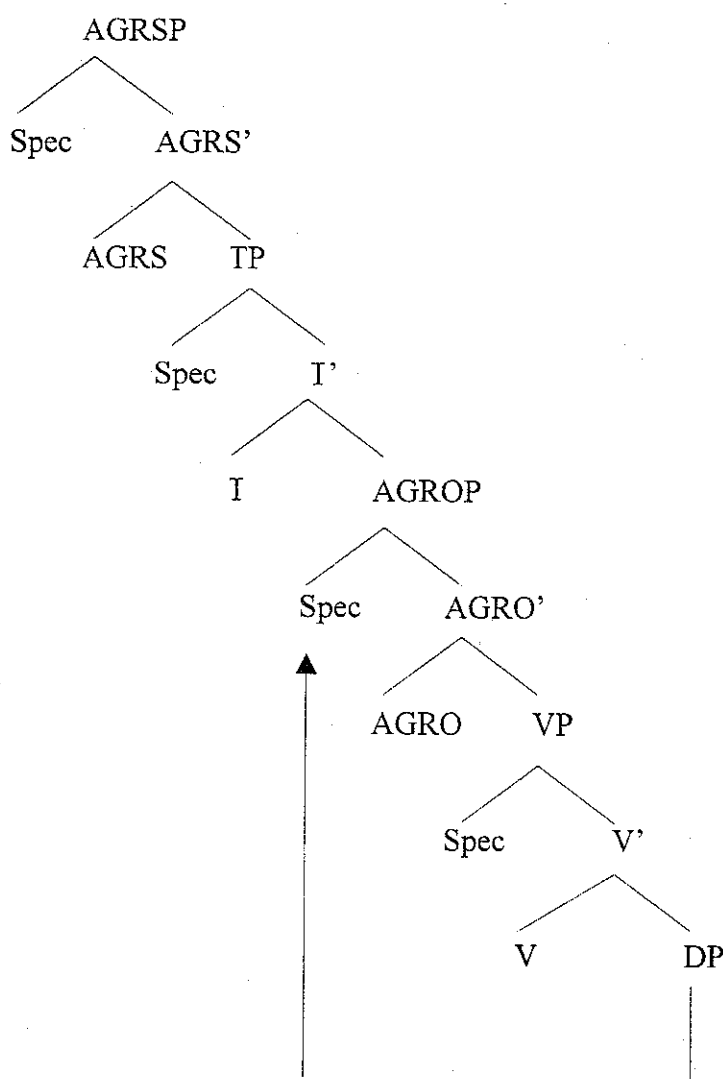
In these two examples, the objects in the idioms are animates and thus illustrates one of the functions of object marking with respect to animacy hierarchy. In both of them the object is also found in the idiom. An analysis that considers the object markers as object pronouns is inconsistent with these forms because idioms do not pronominalize. However, the idiom facts are consistent with an object agreement analysis of object markers, the agreement marker may or may not be there depending on other factors such as animacy, specificity and definiteness. These agreement facts are not in conflict with the realization of the idiom chunks.

The analysis of the object gap, therefore, requires the specification of the Infl node where OM is assigned. Following Pollock (1989), I consider Infl as split into such phrases as Subject Agreement Phrase (AGRSP), Tense Phrase (TP), and Object Agreement Phrase (AGROP) in a structure as presented in (18) below.

The object agreement features are marked on the verb when the verb raises to AGRO and the object to [Spec, AGROP] under Spec-Head agreement (Chomsky 1986a; Koopman 1992; Kinyalolo 1991). The object moves to [Spec, AGROP] so as to be licensed.

To sum up, in this section I proposed an analysis of the two gaps, one associated with OM and the other not associated with OM. Following Bergvall (1987) and (Kinyalolo 1991), I suggest that the object gap is actually a null object, *pro*, which shares its ϕ -features with the object marker. Following Ngonyani (1996), the elliptical gap is analyzed as VP ellipsis in which deletion has targeted the VP at Spell-Out. The object disappears but the verb does not because

(18)



it has moved out to an Infl position before Spell-Out. This analysis also explains why, in the elliptical gaps, constituents other than objects are affected because, as complements of the verb, they may disappear. OM is analyzed as a licensing feature that is triggered by moving an object to be licensed in [Spec,AGROP]. Other complements of the verb such as clausal complements are not licensed in that position.

This section has answered the questions raised in (3) above and repeated here as (19).

- (19)a. What are the syntactic and semantic characteristics of each of these empty categories?
- b. Can the two empty categories get a unified account in the standard typology of empty categories or are they different?
- c. How can these two gaps be represented in a structural configuration?

I have shown that the object gap is a *pro* [+pronominal, -anaphoric] while the elliptical gap is not a nominal empty category but a VP gap. Object gaps appear together with object marking, but elliptical gaps are associated with different kinds of verb complements. Elliptical gaps give

rise to ambiguous interpretation of bound pronouns while object gaps behave like pronouns and do not give rise to sloppy identity interpretation. The realization of the verb in VP ellipsis constructions is attributed to the movement of the verb to an Infl position.

The verb-raising analysis is further supported by the distribution of VP adverbs in Kiswahili and by crosslinguistic facts regarding VP ellipsis. In the following section, I illustrate VP ellipsis features found in Kiswahili as well as other languages unrelated to Kiswahili.

Crosslinguistic Facts

The phenomenon I have analyzed as VP ellipsis shares distinctive features of VP ellipsis with similar phenomenon in other diverse languages such as Irish, Portuguese and Japanese. The features are (a) immunity to constraints imposed by syntactic islands, (b) availability of sloppy identity interpretation, and (iii) government by Infl (McCloskey 1991; Otani and Whitman 1991; Lobeck 1993).

Immunity to Restrictions of Syntactic Islands

Gaps similar to those found in the Kindendeule elliptical clauses are due to syntactic movement. However, syntactic islands, such as *wh*-clauses, do not allow extraction. VP ellipsis gaps, however, do occur in such islands. The following example in English illustrates this.

- (20) She said she will *steal the letter* and I know [why she would -----]

The *wh*-island is enclosed in square brackets. The antecedent VP is underlined. It is not possible to *wh*-extract from the island and leave a trace. This, however, is not a case of extraction. The following examples illustrate the immunity in Kiswahili.

- (21)a ki-tabu ni-li-cho-som-a
7-book I-PST-7OM-read-FV
'a book I read'
- b *Juma, ki-tabu a-li-cho-som-a
Juma, 7-book 1SM-PST-7REL-read-FV
'Juma, a book he read'
- (22) ki-tabu ni-na-cho-som-a na k-ngine [ni-si-cho-som-a ---]
7-book I-PRT-7REL-read-FV and 7-other I-NEG-7REL-read-FV
'a book I am reading and another I am not reading.'

Example (21a) illustrates a relative clause construction as a form of *wh*-movement construction. The object of the relative clause is topicalized in (21b), indicating island effects in Kiswahili. The deleted parts in the second conjunct in (22) are found in environments which are similar to the island in (21b). The antecedent is contained in the first clause but the sentence is grammatical. These two examples illustrate that this phenomenon in Kiswahili, just like in English, is not subject to island constraints and is therefore not a result of a movement process.

Sloppy Identity Interpretation

As discussed earlier, sentences that have undergone VP ellipsis give rise to ambiguous interpretations of the deleted object pronouns. Consider the interpretation of the object pronoun contained in the deleted VP of the following English sentence.

- (23) John taught his children, and Peter did too
 i. = John taught John's children and Peter taught John's children
 ii. = John taught John's children and Peter taught Peter's children

The interpretations of (23) are provided in (23i) and (23ii). In the first interpretation, the entire ellided VP is bound by the antecedent VP. The referent of 'his' in the ellided VP is the same as the one in the first clause. This is the non-sloppy identity interpretation. The sloppy identity interpretation is derived from the possessive pronoun of the deleted VP being bound within the second conjunct clause.

This property is reported in other languages where the verb remains after VP ellipsis just as in Kiswahili VP ellipsis (see McCloskey 1991 on Irish, Otani and Whitman 1991 on Brazilian Portuguese, and Japanese). The following examples from Brazilian Portuguese illustrate ambiguity of interpretation in a VP ellipsis case.

- (24) a O João encontrou o seu mestre de elementário
 the João met the his teacher of elementary
 'João met his elementary school teacher'
 b A Maria também encontrou [e]
 the Maria also met
 i. 'Maria also met João's elementary school teacher.'
 ii. 'Maria also met Maria's elementary school teacher.'
 Portuguese (example from Otani and Whitman, 1991: #31)

The interpretation of the elliptical clause is ambiguous, as shown in (24b), an ambiguity already illustrated in Kiswahili.

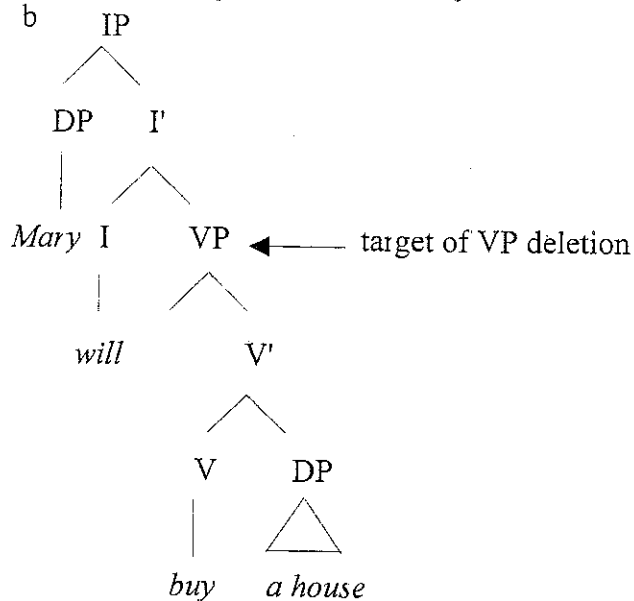
Government by Infl

Lobeck (1993) argues that the deleted constituent in VP ellipsis is governed by Infl. This is indeed what we see in English as illustrated in the following examples.

- (25) a John will buy a house and Mary will too (omitted VP is [buy a house])
 b Did Mary buy a house?
 c Yes She did. (omitted VP is [buy a house])

The analysis of the phenomenon in English is shown in the following tree diagram.

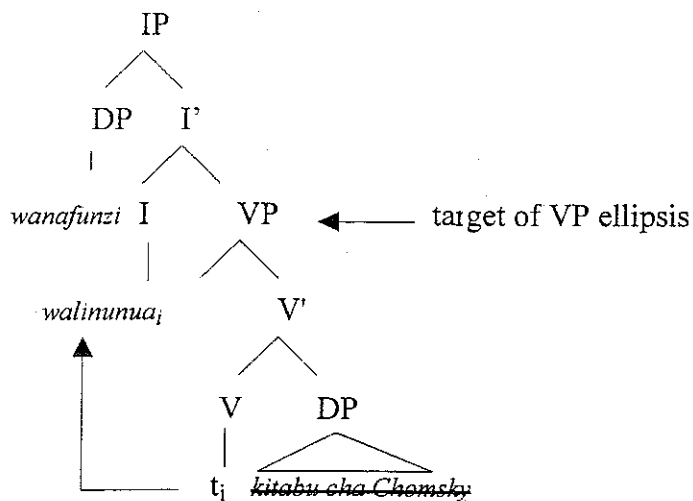
- (26) a John will buy a house and Mary will too.



VP ellipsis targets the VP which is governed by Infl. Since the subject and the auxiliary verb are outside the VP, they are remnants (i.e. they form an elliptical sentence). My analysis of VP ellipsis in Kiswahili is consistent with characterization as example (15) above shows and which I repeat here for convenience

- (27) a na wa-nafunzi wa-li-nunu-a pia.
and 2-student 2SM-PSI-buy-FV too
and students did too

b



This structure shows that the verb has moved to an Infl position, a position that governs the VP headed by the moved verb

The distribution of VP adverbs in Kiswahili supports the verb raising analysis proposed here. In the next section I show the contrast between the distribution of VP adverbs and sentential adverbs and show the effects of V-to-I raising on the VP adverb.

The Distribution of VP Adverbs

I will discuss two Kiswahili adverbs, *polepole* (slowly) and *kabisa* (completely), which have a different distribution. *Polepole* (slowly) can occur in the following positions

- (28) a *polepole* Halima a-li-kat-a mi-wa
 slowly Halima 1SM-PST-cut-FV 4-sugar cane
 'Slowly Halima cut sugar cane'
 b. *Halima *polepole* a-li-kat-a mi-wa
 Halima slowly 1SM-PST-cut-FV 4-sugar cane
 'Halima slowly cut sugar cane'
 c. Halima a-li-kat-a mi-wa *polepole*
 Halima 1SM-PST-cut-FV 4-sugar cane slowly
 'Halima cut sugar cane slowly'
 d. *Halima a-li-kat-a *polepole* mi-wa
 Halima 1SM-PST-cut-FV slowly 4-sugar cane
 'Halima cut slowly sugar cane'

This manner adverb is only possible at the edges of the sentence as (28a) and (28c) show and cannot occur between the subject and the verb as the ungrammaticality of (28b) shows. It cannot be between the verb and the object as (28d) shows. Its distribution is summarized in (29).

(29) *polepole* (slowly)

- a [Adv [[DP] [Vi [VP t i DP]]]] (as in (28a))
 b [[[DP] [Vi [VP t i DP]]] Adv] (as in (28c))

This adverb gives us no information about the internal structure of the clause because it occurs at the edges of the sentence. The VP adverb *kabisa* is more revealing in this respect as the following examples illustrate

- (30) a. **kabisa* Juma a-li-maliz-a kazi
 completely Juma 1SM-PST-finish-FV 9work
 Juma finished the work completely
 b. *Juma *kabisa* a-li-maliz-a kazi
 Juma completely 1SM-PST-finish-FV 9work
 Juma finished the work completely
 c. Juma a-li-maliz-a kazi *kabisa*
 Juma 1SM-PST-finish-FV 9work completely
 Juma finished the work completely
 d. Juma a-li-maliz-a *kabisa* kazi
 Juma 1SM-PST-finish-FV completely 9work
 Juma finished the work completely

These examples demonstrate that only two positions are grammatical for such adverbs: following the predicate as in (30c) or between the verb and the object as in (30d). In other words, the adverb cannot be too high. It can only be VP initial or VP final as shown in the representation of the grammatical forms shown in (31) below

(31) kabisa

- a [[DP] [[Vi [VP ti DP]]] **Adv**] (as in (30c))
 b [[DP] [Vi [**Adv** [VP ti DP]]]] (as in (30d))

If we assume that this adverb is adjoined to the VP, we find non-local relationship between the verb and its complement in (31b). The seemingly non-local relationship between the head of the VP and the complement which appears after the adverb is actually a result of movement of V to a higher Infl head. The verb moves to a position higher than the adverb. The behavior of the VP adverb thus gives us a clear indication that the verb is not inside the VP, a classic argument for V-raising. This is consistent with the analysis of VP ellipsis I presented in Section 4 above.

Conclusion

In this paper I set out to investigate the nature of two gaps in Kiswahili one of which I called an object gap and the other an elliptical gap. The object gap appears only in object positions which are marked with an object marker on the verb. Elliptical gaps appear in the complement of the verb position and therefore maybe for objects, locative goals, and clausal complements, all of which are not marked on the verb by means of an object marker. My main focus was on cases where the elliptical gaps involved objects. I showed that elliptical gaps give rise to ambiguity of interpretation of possessive pronouns. A sloppy identity interpretation of the of the possessive pronoun in the object position is available in elliptical gaps but not in object gaps.

I propose to analyze the object gap as consisting of an agreement marker (OM) and a pro. This analysis provides a unified account for all object markers without resorting to specific provisions for different occurrences. I am suggesting that OM is agreement marking in both OM and Object DP cases as well as in OM with pro cases assigned under Spec-Head configurations. The elliptical gaps, on the other hand, are a result of VP deletion but the verb is spared because it has raised to a position outside of the VP before Spell-Out.

This analysis is consistent with analysis of similar phenomena in languages as diverse as English, Irish and Portuguese. In all these languages, elliptical gaps are immune to island constraints, and possessive pronouns give rise to ambiguous interpretation, one of the interpretations being sloppy identity interpretation. In languages such as English, however, the verb is eliminated in the deletion process.

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