THE MORPHOSYNTAX OF NEGATION IN KISWAHILI

DEO NGONYANI

Introduction

This paper presents a description of sentential negation in Kiswahili and attempts a partial analysis of sentential negation in Kiswahili within the Principles and Parameters framework, in particular, following Pollock's (1989) proposal to split IP into several functional categories including NegP. The main claim is that negation marking in Kiswahili is an instance of negation projection, NegP. The main evidence for this is found in relative clauses and conditional clauses where negation blocks I-to-C movement.

The paper is organized into 5 sections. Basic theoretical assumptions are outlined in Section 1. Section 2 presents a description of the basic facts about four strategies of expressing sentential negation in Kiswahili and highlights problems that the data raise. Section 3 discusses the interaction between negation and relative marker. In Section 4, the location of NegP in IP is proposed. Section 5 presents some general conclusions and summarizes questions for further research.

1. Assumptions about Clause Structure and Kiswahili Verbal Morphology

The analysis I propose in this paper is founded on some basic assumptions of the Principles and Parameters (P&P) framework (e.g. Chomsky 1995; Chomsky and Lasnik 1993). They concern (a) the structure of the clause, and (b) movement. I outline them in this section so as to lay the foundation for the discussion that follows.

I assume the clause structure which is schematically represented below showing three levels.

(1)

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CP
  \--- IP
    \--- VP
        \--- V
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*Some of the material was presented at the Michigan State University Linguistics Colloquium. Many thanks to the participants of the colloquium. Thanks C. Driver for proofreading the paper. My thanks also to a reviewer for very helpful comments.*
In this structure, the clause is made up of projections at three layers of structure. The first layer, the VP layer, is the basis of the clause. It contains the thematic information. The second layer, the inflection phrase (IP) layer, encodes such information as tense, aspect and agreement. The third layer, the complementizer phrase (CP) layer, carries the force of the clause often associated with illocutionary force. This is where we find projections for wh-constructions and focus. Each one of these layers is decomposed into several projections. All categories in IP and CP are functional projections.

P&P theory recognizes the fact that there often exist dependency relations between two or more syntactic positions. One noun phrase, for example, can be associated with two positions. To put it in another way, we often find items pronounced in places other than their base-generated positions. The chain between such positions is known as movement. A constituent moves leaving behind its copy, a copy which may be deleted. The theory of movement deals with constraining movement of elements in the structures. In this theory, both, maximal projections such as XP, and heads such as X0, may move to satisfy some structural requirements. The important condition constraining movement is what Chomsky (1995) termed Minimal Link Condition (MLC) which requires the moving element to move to the nearest relevant positions. Thus, heads move to head positions (cf. Travis 1984; Koopman 1984), and maximal projections move to specifier positions. The movement is motivated by the need to check strong morphological features. A noun phrase, for example, may move to a Case marked position in order to check Case. A head such as a V may move to check inflectional features such as tense and agreement. In this paper, I will demonstrate that these assumptions about clause structure and movement apply at the level of word structure.

In order to show how this syntactic machinery works, a clear understanding of the data is required. A basic description of negation is presented in the following section.

2. Strategies for Expressing Negation

There are four strategies for expressing sentential negation in Kiswahili. They are: (a) negation in tensed clauses, (b) prefix -si-, (c) negative copula si, and (d) kuto- in gerundive and infinitival clauses. The description presented in this section is based on work by various researchers (e.g. Ashton 1947; Contini-Morava 1977, 1989). However, formal accounts of the facts are lacking.

2.1 Negative Marker in Tensed Clauses

The most prevalent strategy for sentential negation makes use of two markers of negation on the verb. One marker is si- for first person singular and ha- for the rest. The second marker occupies the same slot as tense. The second marker is not uniform for all tenses. Ex-

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1 Travis (1984) Head Movement Constraint.
ample (2) below presents the paradigm for affirmative and negative verb morphology in future tense:

(2) Future Tense

<table>
<thead>
<tr>
<th>Affirmative</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitaondoka</td>
<td>I will leave</td>
</tr>
<tr>
<td>Sitaondoka</td>
<td>I will not leave</td>
</tr>
<tr>
<td>Utaondoka</td>
<td>You will leave</td>
</tr>
<tr>
<td>Hutaondoka</td>
<td>You will not leave</td>
</tr>
<tr>
<td>Ataondoka</td>
<td>She/he will leave</td>
</tr>
<tr>
<td>Hataondoka</td>
<td>She/he will not leave</td>
</tr>
<tr>
<td>Tutaondoka</td>
<td>We will leave</td>
</tr>
<tr>
<td>Hatauondoka</td>
<td>We will not leave</td>
</tr>
<tr>
<td>Mtaondoka</td>
<td>You will leave</td>
</tr>
<tr>
<td>Hamtaondoka</td>
<td>You will not leave</td>
</tr>
<tr>
<td>Wataondoka</td>
<td>They will leave</td>
</tr>
<tr>
<td>Hawataondoka</td>
<td>They will not leave</td>
</tr>
</tbody>
</table>

The affirmative verb is marked by a subject agreement marker followed by a tense marker both of which are prefixed to the stem. The negative forms are marked by a negative prefix si- for first person singular. The second and third person singular negative forms are marked by h- followed by the subject marker and tense marker. The plural forms are all marked by the negative prefix ha-. It is possible that 2nd and 3rd person singular negative markers are ha- with the vowel of this prefix deleted in some form of hiatus resolution which may have affected this morpheme at some point in the past. The singular may have evolved from si- followed by the subject prefix as found in the following examples.

(3)a. sitaondoka I will not leave

b. sintaondoka I will not leave

The negative form in (3b) is sometimes heard among some speakers on the coast. The contemporary form found in (3a) may have evolved in the following way:

(4)sintaondoka → sintaondoka → sitaondoka.

The negative pre-initial prefixes (si-, ha-), to use Meeussen’s (1967) terminology, are found in all tenses. The future tense marker is in the same form in the affirmative as in the negative. The tense markers, however, are not realized the same way in all tenses. As the examples below show, the present tense negative counterpart does not have a tense marker as in the affirmative.

(5) Present Tense

<table>
<thead>
<tr>
<th>Affirmative</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ninaondoka</td>
<td>I am leaving</td>
</tr>
<tr>
<td>Siondoki</td>
<td>I am not leaving</td>
</tr>
<tr>
<td>Unaondoka</td>
<td>You are leaving</td>
</tr>
<tr>
<td>Huondoki</td>
<td>You are not leaving</td>
</tr>
<tr>
<td>Anaondoka</td>
<td>She/He is leaving</td>
</tr>
<tr>
<td>Haondoki</td>
<td>She/he is not leaving</td>
</tr>
<tr>
<td>Tunaondoka</td>
<td>We are leaving</td>
</tr>
<tr>
<td>Hatuondoki</td>
<td>We are not leaving</td>
</tr>
<tr>
<td>Mnaondoka</td>
<td>You are leaving</td>
</tr>
<tr>
<td>Hamuondoki</td>
<td>You are not leaving</td>
</tr>
<tr>
<td>Wanaondoka</td>
<td>They are leaving</td>
</tr>
<tr>
<td>Hawaondoki</td>
<td>They are not leaving</td>
</tr>
</tbody>
</table>
In the negative, there is no tense marking. Instead, there is the suffix \(-i\) replacing the final vowel. This vowel is sometimes regarded as the present tense negative marker (Contini-Morava 1977, 1989; Ashton 1947).

The contrast in tense marking between affirmative and negative is much more clearly seen in past tense and perfect aspect. In these, the tense marker of the affirmative is replaced by its negative counterpart as the paradigm in (6) below shows.

(6) Past tense

<table>
<thead>
<tr>
<th>Affirmative</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niliondoka</td>
<td>Sikuondoka</td>
</tr>
<tr>
<td>Uliondoka</td>
<td>Hukuondoka</td>
</tr>
<tr>
<td>Aliondoka</td>
<td>Hakuondoka</td>
</tr>
<tr>
<td>Tuliondoka</td>
<td>Hatukuondoka</td>
</tr>
<tr>
<td>Mliondoka</td>
<td>Hamkuondoka</td>
</tr>
<tr>
<td>Waliondoka</td>
<td>Hawakuondoka</td>
</tr>
</tbody>
</table>

These examples show that the negative prefixes are the same as in the other tenses already considered. The past tense marker \(-li\) is replaced by its negative counterpart \(-ku\). The final vowel \(-a\) is not affected.

A pattern similar to the past tense forms is found in the perfect aspect negative. This is illustrated in the following conjugation.

(7) Perfect Aspect

<table>
<thead>
<tr>
<th>Affirmative</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nimeondoka</td>
<td>Sijaondoka</td>
</tr>
<tr>
<td>Umeondoka</td>
<td>Hijaondoka</td>
</tr>
<tr>
<td>Ameondoka</td>
<td>Hajaondoka</td>
</tr>
<tr>
<td>Tumeondoka</td>
<td>Hatujaondoka</td>
</tr>
<tr>
<td>Mmeondoka</td>
<td>Hamjaondoka</td>
</tr>
<tr>
<td>Wameondoka</td>
<td>Hawajjaondoka</td>
</tr>
</tbody>
</table>

Here again, the negative pre-initial affixes are the same. The tense/aspect marker which appears after the subject marker is replaced by its negative counterpart \(-ja\).

Relating Kiswahili negation marking outlined above to Bantu verbal morphology reveals interesting interaction between tense markers and negation markers. Meeussen (1967:108) summarizes the Bantu verbal morphology in a template which is presented below. Kiswahili examples are added to the template to illustrate the distribution of negative markers².

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² Abbreviations: Numbers refer to noun classes.

<table>
<thead>
<tr>
<th>FT</th>
<th>INF</th>
<th>NEG</th>
<th>PT</th>
<th>IMP</th>
<th>LOC</th>
<th>SUBJ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Future Tense</td>
<td>Infinitive</td>
<td>Negative</td>
<td>Past Tense</td>
<td>Imperative</td>
<td>Locative</td>
<td>Subject Marker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FV</th>
<th>INFL</th>
<th>OM</th>
<th>REL</th>
<th>SM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final Vowel</td>
<td>Inflectional Head</td>
<td>Object Marker</td>
<td>Relative Marker</td>
<td>Subject Marker</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FT</th>
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<tbody>
<tr>
<td>Future Tense</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMP</th>
<th>LOC</th>
<th>PR</th>
<th>FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperative</td>
<td>Locative</td>
<td>Present Tense</td>
<td>Future Tense</td>
</tr>
</tbody>
</table>
(8) Elements of the Bantu Verb

<table>
<thead>
<tr>
<th>Function</th>
<th>Pre-initial</th>
<th>Initial</th>
<th>Post-initial</th>
<th>Formative</th>
<th>Limitative</th>
<th>Infixed</th>
<th>Radical</th>
<th>Suffix</th>
<th>Pre-final</th>
<th>Final</th>
<th>Post-final</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negation</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>ha</td>
<td>tu</td>
<td></td>
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<td></td>
<td></td>
<td>ondok</td>
<td></td>
<td>i</td>
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<tr>
<td>Future</td>
<td>ha</td>
<td>tu</td>
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<td>ondok</td>
<td>a</td>
<td>i</td>
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<tr>
<td>Past</td>
<td>ha</td>
<td>tu</td>
<td>ku</td>
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<td></td>
<td></td>
<td></td>
<td>ondok</td>
<td>a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perfect</td>
<td>ha</td>
<td>tu</td>
<td></td>
<td></td>
<td></td>
<td>ja</td>
<td></td>
<td>ondok</td>
<td>a</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The invariant negative prefixes si- and ha- occupy the same pre-initial slot followed by the initial slot, subject marking (SM). The future tense marker and the past tense marker are assigned to the tense slot while the perfective negative is placed after the tense slot. The present tense negative, for which there is no post-SM marker, is placed in the final slot. The negation markers that appear between the initial affix (SM) and the object marker do not co-occur. Whatever their historical origins, they function in the same way. For this reason they will all be referred to as the post-initial negation marker. The morphology of negation in Kiswahili, therefore, makes use of all three slots for negation marking on the verb found in Bantu languages. This is a tentative characterization of the Swahili verb template which will be modified in the course of the discussion. Suffice here to note that with the exception of future tense, negation could be said to be marked twice in the Swahili verb.

One of the objectives of this paper, therefore, is to account for the distribution of the various slots in so far as they relate to negation. Furthermore, there is need to determine whether the two markers of negation are instances of discontinuous morphemes.

2.2 Negative prefix -si-

The negative marker -si- is used in prohibitive forms and in the negation of a relative clauses as well as conditional clauses. Affirmative commands are marked by absence of prefixes and the presence of a final vowel -a as in indicative mood for singular command. When the command is directed at more than one person, a suffix -eni is used. Negative commands, on the other hand, are marked by a subject marker and a subjunctive marker. These are shown in the examples below.
Negative Imperative

(9) a. som-a!
   'Read-FV!'

b. som-eni!
   Read-IMP
   '(you all) read!'

(10) a. u-si-som-e
    You(sg)-NEG-read-SUBJ
    'Do not read (singular)'

b. m-si-som-e
    you(pl)-NEG-read-SUBJ
    'Do not read (plural)'

In (9a), the verb has no prefix and has the indicative marker -a at the end. The negative form of that command (10a) takes a subject prefix u-, followed by the negative marker -si- followed by the verb stem, and finally the vowel -e identified as the subjunctive marker. Similarly, the plural affirmative negation is replaced by plural subject marker followed by the negative -si-. The verb loses its unique plural suffix for imperative, and like the singular imperative, takes the subjunctive suffix -e. In many languages of the world, negation is incompatible with morphological imperative. Extensive studies are currently being carried out (Zanuttini 1997a, 1997b; Tomić 1999; Rivero 1994). A study of mood and its interaction with negation in Kiswahili is beyond the scope of this paper.

The negative -si- appears also in a relative clause verb as illustrated in the following examples. The relative clauses are indicated by square brackets.

(11) a. ki-tabu [a-li-cho-ki-som-a]
    7-book ISM-PT-7OM-read-FV
    'The book which she/he read'

b. *ki-tabu [h-a-ku-cho-ki-som-a]
    7-book NEG-1SM-NEG+PT-7REL-7OM-read-FV
    'the book which she/he did not read'

c. ki-tabu [a-si-cho-ki-som-a]
    7-book ISM-NEG-7REL-7OM-read-FV
    'the book which she/he doesn't read'

d. ki-tabu [amba-cho h-a-ku-ki-som-a]
    7-book amba-7REL NEG-1SM-NEG-7OM-read-FV
    'the book which she/he did not read.'

The relative clause verb is marked with a relative marker (REL) which exhibits agreement or concord with the head of the relative clause. In (11a), the head of the relative clause is kitabu (book), a class 7 item which agrees with the REL (-cho-). Example (11b) shows an attempt to construct a negative relative clause using the past tense negative that was identified in §2.1.
above. The example shows these forms of negation cannot be used in relative clauses. There are two ways of forming a negative relative clause. The first one is illustrated in (11c) where the subject marker is followed by \(-si-\), which in turn is followed by the relative marker. Notice that there is no tense marking. A speaker can specify the past tense by using the relative construction with an independent complementizer, namely, a construction that uses \(amba\)- illustrated in (11d). In this construction, REL is marked on \(amba\)– allowing the verb of the relative clause to acquire any tense or negation combinations.

The crucial points here are: (a) Negation marking in relative clause without \(amba\)– makes use of a different strategy from negation in the main clause. (b) It appears the use of \(amba\)– frees negative markers, tense, and the verb allowing them to appear in the same form as in the main clause. In Section 3, an explanation for this behavior will be attempted.

2.3 Copula si

The copula \(ni\) is used as an affirmative present. There is no tense marking for this. The negative changes the verb form to \(si\). The affirmative and negative are found in (12).

\[(12)\]
\[(a)\] Juma ni m-chezaji.
Juma is 1-player
'Juma is a player.'
\[(b)\] Juma si m-chezaji.
Juma NEG 1-player
'Juma is not a player.'
\[(c)\] Vi-tabu h-ivi ni vi-gumu.
8-book this-8 be 8-hard
'These books are hard.'
\[(d)\] Vi-tabu h-ivi si vi-gumu
8-book this-8 NEG 8-hard
'These books are not hard.'

The affirmative (12a) and (12c) are negated by \(si\) as in (12b) and (12d). There is no tense marking, nor is there any subject or mood marking in the copula referring to the present. In other tenses, however, the copula makes use of the regular negative and affirmative forms already discussed in §2 1. Here are a few examples.

\[(13)\]
\[(a)\] Vi-tabu vi-le vi-li-ku-w-a vi-gumu.
8-book 8-that 8SM-PT-INF-be-FV 8-hard
'Those books were hard.'
\[(b)\] Vi-tabu vi-le ha-ki-ku-w-a vi-gumu.
8-book 8-that NEG-8SM-INF-be-FV 8-hard
'Those books were not hard.'

\[(14)\]
\[(a)\] Juma a-ta-kuwa m-kemia
Juma 1SM-FT-be 1-chemistry
'Juma will be a chemist.'
b. Juma h-a-ta-kuwa m-kemia.
   Juma NEG-1SM-FT-be 1-chemistry
   'Juma will not be a chemist.'

The infinitive form of this verb is 'kuwa.' This is a short verb that requires adjustments to fit the bisyllabic minimal word structure (Batibo and Rottland 1994; Park 1998). Thus it retains the infinitival ku- as a default segment to enable the stem to have two syllables. All the tense markers and their negative counterparts behave the same as other regular verbs as explained in §2.1 above.

2.4 Kuto + Infinitive

When negation applies to an infinitival or gerundive clause, the negative prefix that is attached is kuto-. The following examples show how this is used.

(15) a. A-li-tak-a ku-andik-a barua
   1SM-PT-want-FV INF-write-FV 9letter
   'She/he wanted to write a letter.'

b. a-li-tak-a kuto-andik-a barua
   1SM-PT-want-FV 15NEG-write-FV 9letter
   'She/he wanted not to write a letter.'

   15NEG-write-FV 9letter NEG-15SM-NEG-1OM-help-FV
   'Not writing a letter did not help her/him.'

   15NEG-INF-write-FV 9letter NEG-15SM-NEG-1OM-help-FV
   'Not writing a letter did not help her/him.'

The prefix kuto- appears before the verb stem as (15b) and (15c) show. Optionally, another infinitival prefix ku- appears between the negative marker and the stem as (15d) illustrates. This negative prefix is probably a result of grammaticalization of another verb.

To sum up, there are four strategies for sentential negation in Kiswahili. The first one marks negation twice on the verb. The second strategy uses the verbal prefix -si- in relative clauses and in imperative forms. The third strategy is the tenseless copula negation si. Finally, there is the infinitival negation kuto-.

The descriptive facts presented here give rise to several analytical questions. I will be concerned with the following:

a) What is the status of the negative marker?

b) How are tense alternations characterizing affirmative and negative to be analyzed?

c) Why is there a difference between negation in main clauses and negation in subordinate clauses?
These questions must be answered in a manner that not only helps us understand the various descriptive facts, but also shed light on features of human language. This is important because the features discussed here are not unique to Kiswahili. Consider, for example, the difference in negative marking in main clauses versus subordinate clauses as already noted. This feature is found in many other Bantu languages. Moreover, it appears there is a very high correlation between this kind of variation and the position of the negative marker on the verb. It is noted, for example, that Bantu languages with negative marking in post-initial slot tend to have the same negation marking in embedded clauses also (Güldemann 1999). Negation in relative clauses provides interesting clues regarding the status of negation vis-à-vis other inflectional affixes. For this reason, it is a good starting point.

3. Negation Marking in Relative Clause Verbs

In this section I present data that suggest that difference between negation marking in main clauses and relative clauses can be attributed to Infl movement to C° in relative clause. Furthermore, the presence of Neg° prevents the verb from moving to C° in relative clauses resulting in the use of what appear to be alternative relative clause constructions. At this point, a brief overview of Kiswahili relative clauses is in order.

Kiswahili has three distinct affirmative relative clause constructions. Examples of these constructions are presented below.

(16) a. kitabu amba-cho a-li-som-a m-geni
   7-book that-7REL 1SM-PT-read-FV 1-guest
   ‘the book which the guest read’

b. ki-tabu a-li-cho-som-a m-geni
   7book 1SM-PT-7REL-read-FV 1-guest
   ‘the book which the guest read’

c. ki-tabu a-som-a-cho m-geni
   7-book ISM-read-FV-7REL 1-guest
   ‘the book which the guest reads’

In the first construction (C1) exemplified by (16a), the head of the relative clause, kitabu (book), is followed by amba—which is affixed with REL agreeing with the head of the relative clause. The relative clause appears after the complementizer amba–. The second relative clause construction (16b) has REL as an affix that appears after the tense marker. The third construction (16c) contains a tenseless verb with REL appearing as the suffix. I will call the second and third constructions C2 and C3 respectively.

Following Demuth and Harford (1999), Kinyalolo (1991) and Ngonyani (1999), REL will be analyzed as the head of the CP. The head of CP consists of two parts: (a) the invariant -o that is often linked to Ashton’s (1947) ‘-o of reference,’ and (b) a preceding agreement
marker which covaries with the head of the relative clause. These are illustrated using the verb form in the second relative clause construction.

(17) a. ni-li-ye-mw-ona → niliyemwona
   1REL 'who I saw'

   b. ni-li-w+o-wa-ona → niliowaona
   2REL 'who I saw'

   c. nili-u+o-u-ona → niliouona
   3REL 'which I saw'

   d. ni-li-i+o-i-ona → niliyoiona
   4REL 'which I saw'

   e. ni-li-ki+o-ki-ona → nilichokiona
   7REL 'which I saw'

While relative agreement with Class 1 seems to deviate from the norm, the rest consistently exhibit the two parts discussed above.

It was pointed out earlier that the same strategy of negative formation cannot be combined with relative clause verbs §2.2. The example that was used to illustrate this (11b) was the second construction of relative clauses. That is, it is not possible to have NEG-SM-NEG-REL. Another example using the third construction is used here to further illustrate the point.

(18) a. tu-som-a-cho
   we-read-FV-7REL 'which we reads'

   b. *tu-si-som-a-cho
   we-NEG-read-FV-7REL 'which we do not read'

   c. tu-si-cho-som-a
   we-NEG-7REL-read-FV 'who does not read/study'

In the third construction of relative clauses, the verb is not marked for tense as (18a) shows. It has the subject marker, followed by the stem, and finally REL. Using the negative marker -si- after the subject marker does not yield a grammatical string as (18b) shows. The only way to mark both negation and REL on the verb is by making use of the order found in (18c), namely, SM-NEG-REL-V. This form involves no tense marking.

Following the insights from Myers (1995, 1998) and Barrett-Keach (1985, 1986), two domains of the verb are recognized. The first domain is built around the tense marker, and the second one is the stem. The first domain includes the subject marker, tense/aspect, negation and the relative marker (REL). The second domain encompasses the object marker, the verb root, its extensions and mood marker. The two parts of the verb are interpreted by Ngonyani (1999) as domains of incorporation. The first domain is associated with INFL categories, and
the second domain is that of the verb. In Kiswahili relative clauses, REL (which is C°) is a higher position to which INFL categories incorporate through head movement. To understand the movement hypothesis, one needs to look at apparent displacement of REL. The three affirmative relative clause constructions are formed by moving one of the relevant heads to C° as shown below.

\[(19)\] 
\[a \quad [CP [c \text{ amba-REL}] \quad [IP_{INFL-} \quad [VP \quad [V]]] \quad (C1)\]
\[b \quad [CP [c \text{ INFL-REL}] \quad [IP \quad [t-\quad [VP \quad [V]]] \quad (C2)\]
\[c \quad [CP [c \quad \text{V-REL} \quad [IP \quad [VP \quad [t \quad [V]]] \quad (C3)\]

The first relative clause construction involves no I-to-C movement. The word amba- bears REL. In the second construction, however, there is I-to-C movement, resulting in the tense marker appearing before the relative marker. The third construction is tenseless verb in which the verb stem has to move all the way to C. These displacement features are consistent with head movement constraint (Travis 1984) or the minimal link constraint (Chomsky 1995).

This simple account requires that certain affixes be recognized as relevant heads for movement and incorporation, in Baker's (1988) terminology. It is quite evident that tense marker is a relevant INFL head involved in overt syntactic movement. Subject marking does not show restrictions that are observed with other morphemes. Moreover, Bresnan and Mchombo

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3 For this incorporation account, it does not matter whether one ascribes to the standard adjunction analysis of relative clauses (Chomsky 1977) or head-raising analysis (Kayne 1994). However, evidence is emerging that supports the latter analysis. Consider for example:

\[a \quad \text{Tuliona barua mbili ambazo kila mwanafunzi aliandika}\]
\[\text{‘We saw two letters which each student wrote.’}\]

\[b \quad \text{Matope ambayo Nungu aliwapaka Sungura yaliwakasirisha}\]
\[\text{‘Insinuations that the porcupine made against the hares angered them.’}\]

The head of the relative clause in example (a) is a noun phrase that is bound by a quantified noun phrase in the relative clause. The reconstruction effects suggest that the head was generated inside the relative clause. Furthermore, in (b), the head of the relative clause is a nominal which is an idiom chunk. Nominals are generated as part of the idiom chunk in the lexicon. This is further evidence that the head of the relative clause in Kiswahili is generated inside the subordinate clause and is raised to a position outside of the relative clause.

4 According to Demuth and Harford (1999) the movement to C° explains why in object relative clauses, the object appears in postverbal position. Kiswahili is an SVO language. The SV order is maintained in C1, but in C2 the order is reversed into VS as the following examples show.

\[a \quad \text{wato} \quad \text{Walikisoma} \quad \text{kitabu}\]
\[\text{children read the book}\]
\[S \quad V \quad O\]

\[b \quad \text{kitabu} \quad [\text{ambacho wato} \quad \text{Walikisoma}]\]
\[\text{the book that the children read}\]
\[S \quad V\]

\[c \quad \text{kitabu} \quad [\text{walichokisoma} \quad \text{wato}]\]
\[\text{the book they read the children}\]
\[S \quad V\]

In (c) the order is VS, a reversal of the main clause order.
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(1987) argue convincingly that SM in Bantu languages is an agreement marker. The verb stem is recognized as a head also. REL has already been identified as C°. Subject marking and object marking do not block head movement. Subject marking and object marking may be an instance of feature checking rather than of syntactic heads and therefore they are not attached to the verb through the same mechanism as heads.

Having established head-to-head movement as the mechanism that derives verb in the three relative clause constructions, it can now be seen that negation blocks movement of V to REL. The following examples make use of the ungrammatical forms already discussed above to show how negation blocks I-to-C movement. Only the highest head incorporates onto C°.

(20) a. *tu-si-som-a-cho
   we-NEG-read-FV-7REL
   ‘which we do not read’

b. *si - soma-cho
   NEG-V REL --
   *soma-cho - si

c. V - REL NEG --
   The verb cannot move together with Neg to REL as (20a) and (20b) clearly show. Movement of negation blocks movement of the verb stem and movement of the verb blocks movement of negation. Both are violations of the Minimal Link condition. Likewise, it cannot move to REL leaving Neg in postverbal position (20c).

If such blocking affects tense and negation movement to C°, similar ungrammaticality should result. Indeed this is what happens as the ungrammaticality of the following example illustrates.

(21) a. *ki-tabu h-a-ku-cho-ki-som-a
   7-book NEG-1SM-NEG+PT-7REL-7OM-read-FV
   ‘the book which he did not read’

b. T REL NEG -- V
   Tense cannot move to C° past Neg°. Neither can both T and Neg move together. This is also the case with the third relative clause construction

From the foregoing observations it can be concluded that Neg blocks the movement of T-to-C, as it does with V-to-C movement. Following standard assumptions in P&P framework,
only heads block head. Movement across such a head violates the head movement constraint. Therefore, Neg must be a head which occupies an intermediate position between C and V.

4. The Structure of a Negative Clause

There are three questions which have not been explicitly addressed so far. These are: (a) Where is the negation projection located in the Infl structure? (b) Is negation marking realized by a discontinuous morpheme? (c) How can the order of the preverbal affixes be accounted for? This section attempts to propose a tentative new analysis which answers these questions.

The first question we have to consider is whether ha- together with the post-initial negation marker in the double marked negation, such as hatujenda ‘we have not gone,’ form a discontinuous morpheme. Let us note some basic facts. First, the post-initial Neg seems to be in complementary distribution with tense marking. Secondly, post-initial Neg is more prevalent considering that ha-less negation uses post-initial -si-. Moreover, si also appears in verbless copulas. From these facts, I conclude that the post-initial negation marker in Kiswahili is the dominant form of negation, and that Neg and Tense are somehow fused together.

That leaves us with the pre-initial ha-. Note that this is the less prevalent negative marker. It does, however, appear as the only negative marker in locative copulas such as shown below.

(22) a. Vi-tabu vi-ko meza-ni
     8-book 8SM-LOC 9table-LOC
     ‘The books are on the table.’

b. Vi-tabu ha-vi-ko meza-ni.
     8-book NEG-8SM-LOC 9table-LOC
     ‘The books are not on the table.’

In (22b) the locative copula that is marked for the subject marker vi- and locative -ko take the negative pre-initial providing the present time reading.

Not all finite clause negation has ha-. An investigation of the constructions where this negation marker is not used provides interesting clues regarding the possible nature of sentential negation in Kiswahili.

(23) a. ki-tabu tu-si-cho-som-a
     8-book we-NEG-7REL-read-FV
     ‘the book we do not read’

b. Tu-si-po-som-a tu-ta-shindw-a m-tihani
   We-NEG-if-read-FV we-FT-fail-FV 3-exam
   ‘If we don’t study we will fail’

c. m-si-som-e
   you(pl)-NEG-read-SUBJ
   ‘Do not read (plural)’
In all three cases the negation affix -si- appears after the subject marker. The crucial question here is what features contrast these three constructions with the sentences that take ha- prefix. The affix -si- is not associated with any particular tense. Therefore, these three sentences lack tense marking. In (23a) and (23b) the Neg has incorporated onto C° according to the argument developed in §3 resulting in the 'o of reference' to appear after the negation marker. It can be assumed that in (23c) the subjunctive verb has moved to a position higher than tense or negation.

If this assumption is correct, it suggests a uniform account for why in these three cases there is no ha-. This negative marker is a syntactic head that is responsible for blocking other Infl elements or verb movement to C°. This means there are two negative markers in finite matrix clauses. Since Pollock (1989) it has been assumed that there is only one negation position. Zanuttini (1997b), however, uncovers interesting facts in Romance languages that lead to the conclusion that there may be more than one across languages and even within one language. Therefore, two negative projections in a sentence is not at all unusual.

At this point I can only conjecture as to why there is need for two negative markers. The fusion of tense and negation results in the weakening of this head which is required to license not only the predicate, but also the subject. The introduction of a second negative head helps to license the subject by assigning its appropriate Case.

Assuming that the subject is base-generated in [Spec, VP] (Koopman and Sportiche 1991) and is licensed in a specifier position of Infl, I propose to analyze sentential negation in the following way.

(24) NegP
    / 
   /  
   /   
   DP Neg'
    /  
   /   
   /    
   watoto; Neg° T/NegP
    /  
   /   
   /    
   ha- DP T/Neg°
    /  
   /   
   /    
   t; T°/Neg°
    /  
   /   
   /    
   VP
    /  
   /   
   /    
   -wa- ku- [C2] DP V°
    /  
   /   
   /    
   t; Compl
    /  
   /   
   /    
   soma kitabu
In this structure, the second negation projection is fused with the TP. Subject agreement is marked on the T.

5. Conclusion and Further Questions

Several questions have been raised in the foregoing description and discussion. Some valuable insights have been gained although many questions remain unaddressed. Among the questions raised are the following:

a) What is the status of the negative marker?

b) How are tense alternations characterizing affirmative and negative to be analyzed?

c) Why is there a difference between negation in main clauses and negation in subordinate clauses?

From the discussion, there is a negative projection, one of the projections under Infl. Negation in the matrix clause differs from negation in the subordinate clause because in subordinate clauses, the $C^o$ attracts the highest Infl which it incorporates to the left of the host. The negative marker may be the highest Infl that finally appears on the left of the relative marker. This basic idea requires further investigation.

A question that was raised in §2.1 is whether the two markers of negation on the verb are a single discontinuous morpheme. This appears to be not the case. The postinitial negative marker is the one that appears in all finite verbs. It appears in the verbs that are marked with two negative markers, and other verbs with the negative marker –si–. The pre-initial negative marker does not appear in subjunctives, relative clauses in which the relative marker is marked on the verb. The analysis suggests that negation is marked twice.

Earlier on when discussing the interaction between negation and relative clause formation, it became apparent that negation prevented movement of other Infl elements or the verb to $C^o$. This led to the conclusion that negation marking is projected in NegP. NegP is therefore located between CP and VP. It is part of IP. Next, the relative positions of negation and tense must be determined. Recall that we do not find distinctive co-occurrence of tense and negation. Tense markers do not maintain their affirmative form when they appear in negative verbs. Furthermore, whenever either appears, it is located between the subject marker and the stem, or between the subject marker on the left and relative marker and object marker on the right. I conclude from these facts that $T^o$ and Neg$^o$ do not dominate distinctive morphological material. Instead, they are fused together.

The structure proposed in (24) does not shed light on the position of mood. Nevertheless, it is consistent with the standardly accepted structure of CP in the Principles and Parameters framework. As noted earlier, mood is marked by a final vowel on the stem or a suffix. Any analysis of mood should be able to explain several facts that have been uncovered. They in-
clude: (a) Negatives are incompatible with imperative morphology. (b) Negative commands use the subjunctive form. (c) The imperative form does not bear subject marking. A more extensive investigation is required in order to adequately account for these facts. More needs to be said also about the syntactic status of various morphological elements of the verb.

References


