Bantu Locative Applicatives High and Low[*]

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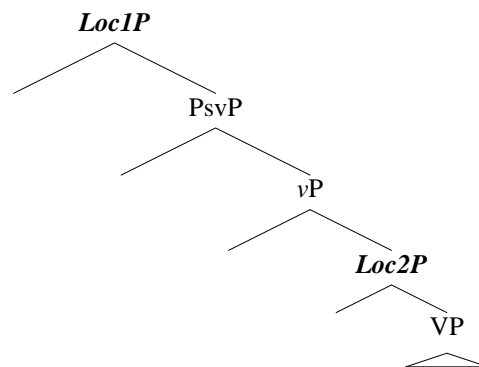http://www.FizzyLogic.com/users/bulbul/academic.html

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1 Loc1 and Loc2

This talk will argue for the existence of two distinct positions in which the Bantu locative applicative argument can be merged, one below PsvP and *v*P, which I will call Loc2, and one above them, which I will call Loc1:

(1)

Two types of data will be brought to bear on the issue:

a. **Zulu PP and DP locatives.** Novel data will show that two different patterns are exhibited with DP and PP locative applicative arguments, which can be easily explained if they are merged in two different positions. Two constructions relevant in this discussion — locative applicative DP subjects and infinitival locative applicative relatives with postverbal agents — were first described, to my knowledge, in Buell (2003).

b. **Nsenga locatives and passivization.** Data from the Nsenga language (Simango 1995) will support this conclusion by showing that a reversal in the ordering of the locative applicative suffix with respect to the passive suffix correlates with a syntactic asymmetry.

2 Zulu locative applicative arguments: PPs and DPs

In most of the examples in the Zulu portion of this talk, locative expression will be "school". Here are the DP and PP forms of "school" in Zulu:

(2) a. DP:

i- sikole
7- 7.school

"school"

b. PP:

e- sikole- ni
7- 7.school- LOC

"at school"

In Zulu a locative PP may occur either as an adjunct, requiring no special morphology on the verb, as in (3), or as an applicative argument, requiring the applicative suffix *-el* on the verb, as in (4):

(3) PP locative adjunct

A- bantwana ba-   fund- a [e-   sikole- ni.]$_{PP}$
2- 2.child   2.SBJ- study- FV   LOC:7- 7.school- LOC

"The children study at the school."

(4) PP locative applicative argument

A- bantwana ba-   fund- ***el-***   a [e-   sikole- ni.]$_{PP}$
2- 2.child   2.SBJ- study- APPL- FV   LOC:7- 7.school- LOC

"The children study at the school."

Semantic differences between the PP adjunct and PP applicative are extremely difficult to pin down. We will not be concerned with locative adjuncts in this talk.

We will now address differences between constructions in which the locative applicative argument appears as a PP, as in (4), and constructions in which it appears as a DP, as in (5):[1]

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[1] A subtype of the (5) sentences is perhaps first mentioned in (Nkabinde 1988).

(5) DP locative (locative-to-subject raising)

[I- sikole]_{DP} si-   fund- el- a a- bantwana.
 7- 7.school   7.SBJ- study- APPL- FV 2- 2.child

Lit. "The school studies at the children."
($\approx$ "The school is studied at by the children.")

The PP and DP locatives are associated with two different sets of syntactic properties:

- PP locative: The agent has subject properties. The locative has object properties.

- DP locative: The agent has some object properties. The locative has subject properties.

These will be accounted for by merging the PP locative in the lower spec-Loc2 position and merging the DP locative in the higher spec-Loc1 position, as in (6):

(6) Zulu locative applicative arguments
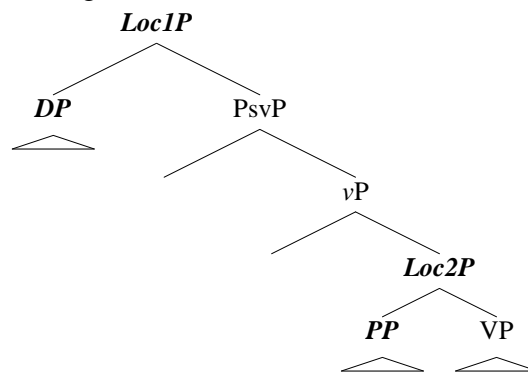
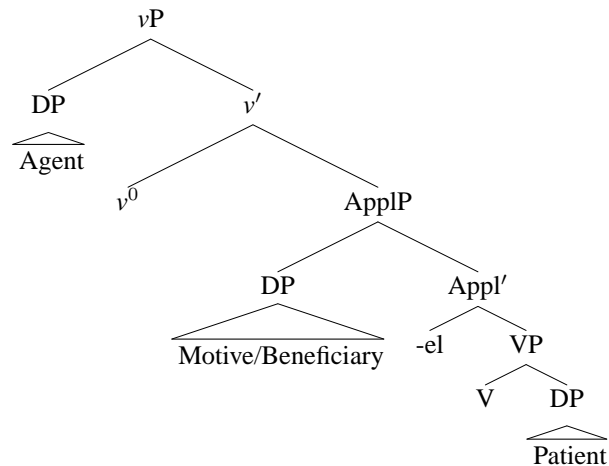## 2.1   PP locative applicative arguments

I will claim that PP locative applicative arguments behave largely like DP objects in Zulu. So, we will briefly examine DP objects first.

DP objects.   DP objects in Zulu (patients, beneficiaries, and motives) share certain properties:

(7) a. Passivization: DP objects can raise to preverbal subject position under passivization.

    b. Preverbal subject position: DP objects cannot raise to preverbal subject position in active voice. (And among the constructions this precludes is subject/object reversal.)

This shared behavior is partially a consequence of the fact that patients, beneficiaries, and motives are all merged below the agent (Ngonyani 1996) (Pylkkänen 2002).

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(8) Objects merged below the agent

PP locative applicatives. The Zulu locative applicative argument in postverbal position must appear as a PP:

(9) a. A- bantwana ba- fund- el- a [e- sikole- ni.]_PP
      2- 2.child   2.SBJ- study- APPL- FV   LOC:7- 7.school- LOC

    b. * A- bantwana ba- fund- el- a [i- sikole.]_DP
        2- 2.child   2.SBJ- study- APPL- FV   7- 7.school

    "The children study at the school."

  PP locative applicative arguments fall into the same pattern as DP objects.

Passivization. A locative applicative PP can raise to preverbal subject position under passivization:

(10) [E- sikole- ni]_PP ku- zo- fund- el- w- a (nga- bantwana).
     LOC:7- 7.school- LOC   17.SBJ- FUT- study- APPL- PSV- FV   by:2- 2.child

    "The school will be studied at (by children)."

The locative PP *esikoleni* in (10) is truly in subject position and is not a PP topic of an imper-sonal passive,[2] since although Zulu does have impersonal passives, they are incompatible with *by*-phrases:

(11) Ku- zo- fund- w- a (* nga- bantwana).
    17.SBJ- FUT- study- PSV- FV   by:2- 2.child

    "There will be studying going on (by children)."

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[2] The potential for two different analyses stems from the fact that noun class 17 in Zulu serves as both a locative class and as a sort of default agreement class. As examples of the latter, noun class 17 agreement can be used as subject agreement with certain types of conjoined subjects, with copular predicates, and with verbs like *be evident* which take only one clausal argument. Thus, in sentences such as (10), it is not immediately obvious whether the verb agrees with a locative subject or whether it merely bears default (dummy) agreement.

Preverbal subject position. A PP locative applicative argument cannot appear in preverbal subject position. Although the PP appears to do just that in (12a), it is arguably actually a topic, as it clearly is in (12b):

(12) a. (E-   sikole- ni)$_i$ ku-   zo- fund- el-   a a- bantwana t_i.
          LOC:7- 7.school- LOC   17.SBJ- FUT- study- APPL- FV 2- 2.child

      b. (E-   sikole- ni,)$_i$ a- bantwana ba-   zo- fund- el-   a t_i.
          LOC:7- 7.school- LOC   2- 2.child   2.SBJ- FUT- study- APPL- FV

          "(At the school), children will study."

Without a postverbal agent, the preposed locative is ungrammatical:

(13) * [E-   sikole- ni$_i$]$_{Top}$ ku-   zo- fund- el-   a e_{agent}.
        LOC:7- 7.school- LOC   17.SBJ- FUT- study- APPL- FV

      Lit. "At the school will study at." ($\approx$ "The school will be studied at.")

2.2   DP locative applicative arguments

The two locative applicative constructions described here have two properties which set them apart from the PP locative applicatives just described:

a. The locative argument appears as a DP.

b. A postverbal agent is licensed. This postverbal agent has an object-like property. (Which property that is varies with the construction.)

Again, I will take these properties to fall out from the fact that in the V domain the locative DP is higher than the agent:

(14)   Locative DP merged above the agent

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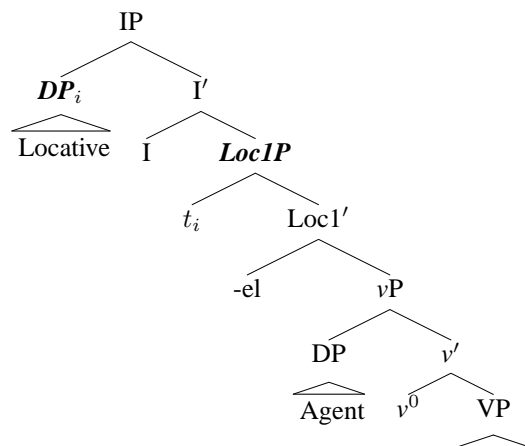
2.2.1 Locative-to-subject raising

In what I am terming "locative-to-subject" raising, the locative applicative DP appears in subject position:

(15) I- sikole si-   zo- fund- el-   a a- bantwana.
      7- 7.school 7.SBJ- FUT- study- APPL- FV 2- 2.child

   Lit. "The school will study at children."
   ($\approx$ "The school will be studied at by children.")

   Please note that in Zulu these sentences are active, even though they are usually best translated into English with passive voice.
   I will now show that the DP locative in (15) is a subject, while the agent has an object property.

Locative subject.   The locative DP in (15) is a subject:

   a. It is in preverbal position.

   b. It triggers subject agreement.

   c. There is no resumptive pronoun or clitic in the VP.

   d. It can be relativized (Morimoto 2000):

      (16) Ngi- bon- e   i- sikole e-   si-   fund- el-   a a- bantwana ba- kho.
            1S.SBJ- see- PERF 7- 7.school REL- 7.SBJ- study- APPL- FV 2- 2.child   2.of- you

         "I saw the school that your children study at."

   e. It can be clefted (Morimoto 2000):

      (17) Y-   i- sikole esinye e-   si-   fund- el-   a a- bantwana ba- mi.
            COP- 7- 7.school 7.other REL- 7.SBJ- study- APPL- FV 2- 2.child   2.of- me

         "It's another school that my children study at."

Unspecified subject drop.   The agent may be implicit in locative-to-subject raising, as shown in (18), where the agent receives an arbitrary interpretation:

(18) I- sikole si-   zo- fund- el-   a t_i e_{agent}.
      7- 7.school 7.SBJ- FUT- study- APPL- FV

   Lit. "The school will study at."
   ($\approx$ "The school will be studied at (by people/someone).")

This is surprising, because postverbal subjects (VP-internal subjects) cannot generally be implicit, as shown in (19):

(19) a. (A- bantwana) ba-   zo- cul- a.
           2- 2.child   2.SBJ- FUT- sing- FV

      b. Ku-   zo- cul- a *(a- bantwana).
          17.SBJ- FUT- sing- FV   2- 2.child

          "The children/they will sing."

The ability to be implicit in postverbal position is taken to be an object-like property:

(20) Ngi-   zo- fund- is-   a (a- bantu   ).
      1S.SBJ- FUT- study- CAUS- FV   2- 2.person

      "I will teach (people)."

No passivization.   A DP locative applicative argument cannot raise to subject position under passivization.

(21) * I- sikole si-   zo- fund- el-   w- a.
        7- 7.school 7.SBJ- FUT- study- APPL- PSV- FV

      "The school will be studied at."

Given the Mirror Principle (Baker 1988) and the morpheme ordering in (21), the ungrammaticality is predicted: a DP locative is only compatible with Loc1, which is above passive, but the morpheme ordering in (21) corresponds to a structure in which the applicative is below passive.

2.2.2   Infinitival relatives

Zulu has the infinitival relative construction found in many Bantu languages:

(22) i- zingoma zo-   ku- cul- a
      10- 10.song   10.of:15- 15- sing- FV

      "songs for singing"

The construction is compatible with postverbal objects:

(23) i- sikhathi so-   ku- cul- a i- zingoma
      7- 7.time   7.of:15- 15- sing- FV 10- 10.song

      "time for singing songs"

But it is not compatible with postverbal agents:

(24) a. i- sikhathi so-   ku- cul- a (* a- bantwana)
          7- 7.time   7.of:15- 15- sing- FV   2- 2.child

          "a time (for children) to sing"

      b. [i- mali   ]$_i$ yo-   ku- sebenz- el-   a (* a- bantwana) t_i
          9- 9.money   9.of:15- 15- work-   APPL- FV   2- 2.child

          "money (for children) to work for"

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The ability of an argument to appear in postverbal position in this construction can thus be taken to be an object-like property.

Now note that a postverbal agent is licensed in this construction when a locative applicative DP is extracted:

(25)   [i- sikole]$_i$ so-   ku- fund- el-   a (a- bantwana) t_i
       7- 7.school   7.of:15- 15- study- APPL- FV   2- 2.child
       "a school (for children) to study at"

A theory in which DP locatives undergo raising and extraction from the same position as PP locatives cannot explain how the postverbal agent is licensed in precisely this case.

2.3   Conclusions about Zulu

PP locative.   The agent has subject properties, and the locative has object properties.
$\rightarrow$ The locative is below the agent in the V domain.

DP locative.   The agent has certain object-like properties, while the locative has certain subject properties.
$\rightarrow$ The locative is higher than the agent in the V domain.

3   Nsenga locatives and passivization

Nsenga exhibits two relative orderings of the locative applicative and passive suffixes, which correspond to a syntactic asymmetry (Simango 1995):[3]

(26)   a. With the order V-Appl-Psv, the direct object cannot passivize.
           $\rightarrow$ Appl = Loc2^0
       b. With the order V-Psv-Appl, the direct object can passivize.
           $\rightarrow$ Appl = Loc1^0

Assuming two merge positions of the locative allows us to both maintain the Mirror Principle (Baker 1988) and explain the syntactic asymmetry.

V-Appl-Psv: Appl = Loc2^0.   With the morpheme ordering V-Appl-Psv, the direct object cannot be passivized, while the locative can.

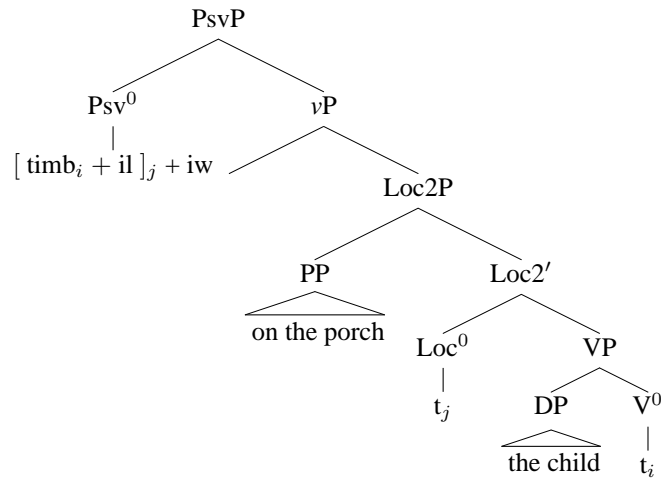(27)   Nsenga locative and passive (Simango, p. 258)
       a. ∗ Mwana ∅-   e-   timb- *il-*   *iw-* a pa lukolo (na Tombi).
           1.child   1.SBJ- PST- beat-   APPL- PSV- FV on porch   by Tombi
       "The child was beaten on the porch by Tombi."

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[3] Nsenga glosses have been modified to be uniform with the Zulu glosses.

b. Pa lukolo p- e- timb- *il- iw-* a mwana (na Tombi).
on porch SBJ- PST- beat- APPL- PSV- FV child by Tombi

"On the porch was beaten the child (by Tombi)."

Both the morpheme ordering and this syntactic fact are those predicted if the Appl morpheme is the $Loc2^0$ head:
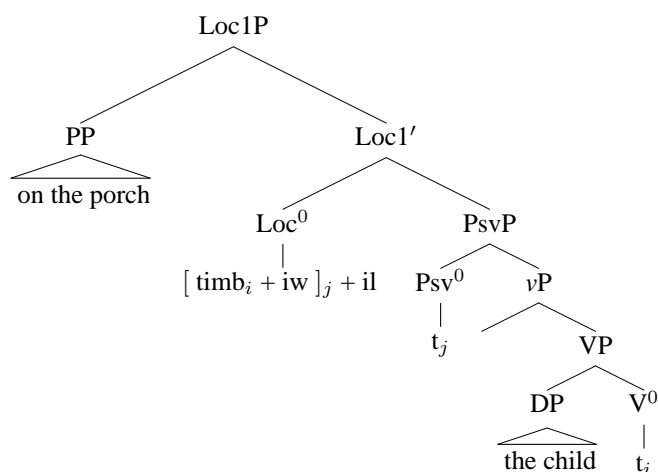
(28)

These are the same morpheme ordering and passivization facts as for benefactive applicative and passive in Nsenga.

V-Psv-Appl: Appl = $Loc1^0$. With the morpheme ordering V-Psv-Appl, both the direct object and the locative applicative argument can passivize.

(29) a. Mwana $\varnothing$- e- timb- *iw- il-* a pa lukolo (na Tombi).
1.child 1.SBJ- PST- beat- PSV- APPL- FV on porch by Tombi

"The child was beaten on the porch by Tombi."

b. Pa lukolo p- e- timb- *iw- il-* a mwana (na Tombi).
on porch SBJ- PST- beat- PSV- APPL- FV child by Tombi

"On the porch was beaten the child (by Tombi)."

The morpheme ordering and this syntactic fact are those predicted if the Appl morpheme is the $Loc2^0$ head, an analysis which is essentially the same as Simango's own:

(30)

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                              Loc1P
                     ┌──────────┴──────────┐
                    PP                     Loc1′
                ┌────┴────┐          ┌───────┴───────┐
              on the porch         Loc⁰            PsvP
                                    │          ┌─────┴─────┐
                            [ timbᵢ + iw ]ⱼ + il  Psv⁰      vP
                                              │        ┌─────┴─────┐
                                             tⱼ               VP
                                                       ┌──────┴──────┐
                                                      DP            V⁰
                                                   ┌───┴───┐         │
                                                 the child        tᵢ
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The applicative symmetry puzzle. The analysis also provides a solution to the question of what we could call an applicative symmetry puzzle. Nsenga appears to be an asymmetric language with respect to benefactives: the direct object can neither passivize nor be doubled/replaced with an object clitic in the presence of a beneficiary. However, Nsenga has mixed properties with respect to locative applicatives: the direct object cannot passivize in the presence of a locative applicative, with the benefactive-like V-Appl-Psv morpheme order, but the direct object can be doubled/replaced with an object clitic. This can be explained if the applicative morpheme is taken to be $Loc1^0$ rather than $Loc2^0$ when the object clitic is present. This allows us to maintain that Nsenga is a uniformly asymmetric language with respect to applicatives merged below passive.[4]

4   Conclusion

Evidence for two locative positions. Different types of evidence were shown from different Bantu languages pointing to two distinct merge positions for the Bantu locative applicative:

a. Two very different clusters of properties for DP and PP locative applicatives in Zulu, where the object-like properties of the agent with a DP locative can be attributed to the locative subordinating the agent in the V domain.

b. A morpheme-ordering alternation in Nsenga which correlates with a syntactic asymmetry.

References

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[4] I hope to post a note about this, with examples, on my Web site soon.

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