

Mirror Principle Violations in Bantu Languages Have Been Misanalyzed

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Claimed Mirror Principle Violations in Bantu Languages

- Have figured prominently in the literature:
- Hyman (2003), Hyman et al. (2009), McPherson & Paster (2009), Skinner (2009), Ryan (2010), Zeller (2017), Zukoff (2017), Myler (2017)

Generally follows CARP template (Hyman 2003):

- (1) V-Caus-Appl-Rec-Pass
- (2) Chichewa (Hyman 2003: 260, (23b))

aná a-ná-lím-**its-il-idw**-á mákásu
children 3Pl-Past-cultivate-**Caus-Appl-Pass-FV** hoes
'the children were made to cultivate with hoes'

(3) Bemba (Givón 1976)

a. Naa-mon-**an-ya** Mwape na Mutumba.
I-Past-see-**Recip-Cause** M. and M.

‘I made Mwape and Mutumba see each other.’

b. Mwape na Chilufya baa-mon-**eshy-ana** Mutumba.
M. and Ch. 3pS-see-**Cause-Recip** M.

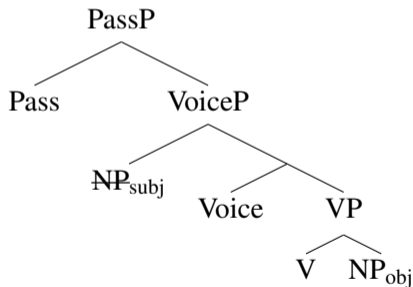
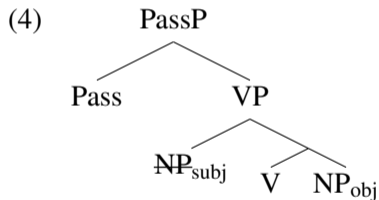
‘Mwape and Chilufya made each other see Mutumba.’

- In (3a), Recip applies first, creates a reciprocal predicate, Caus then applies to that;
- In (3b), Caus applies first, adds causer, then Recip applies to that to create a reciprocal causing event.

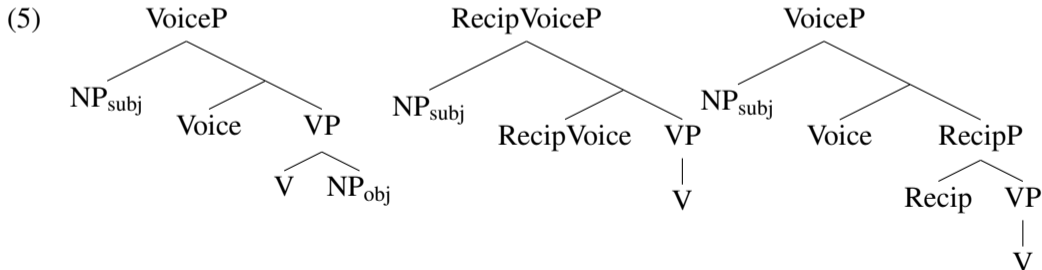
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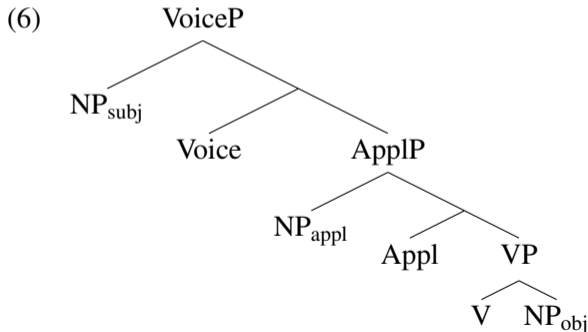
- Passive removes an external argument (Comrie 1977, Keenan 1980, 1985, Bruening 2013).
- Promotion of an internal argument is secondary.



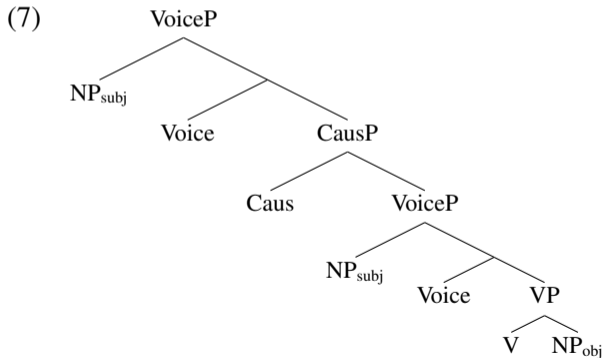
- Recip applies to a two-place predicate (at minimum) and turns it into a one-place predicate (Keenan & Razafimamonjy 2004, Bruening 2006).
- Bruening (2006): Recip is external-argument-introducing, i.e., unergative:
- Sole argument of derived intransitive is external argument;
- And it requires a predicate that has an external argument as its input.



- Appl adds an internal argument.
- Most likely: merges *below* whatever introduces the external argument (“agent”).
- (Wide variety of applicatives, which may not behave alike: instrumental, locative, benefactive, malefactive, comitative, ...; see, e.g., Marantz 1993, Bosse et al. 2012.)



- Caus introduces a causing event;
- And a causer.
- Pylkkänen (2008): These are separate functions, not necessarily performed by the same head in the syntax.



- Kratzer (1996): Introduces the external argument.
- Pylkkänen (2008): Introduces the causer, outside of Caus which only introduces a causing event.
- In Bantu, identify with the “transitive” suffix in the extended CARTP template (Hyman 2003)?

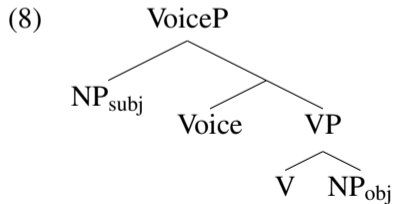


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(9) Ndebele (Hyman et al. 2009: 298, (51))

- a. abantwana b-a-phek-el-w-a ukudla
children they-Past-cook-Appl-Pass-FV food
'The children were cooked food.'
- b. ukudla kw-a-phek-el-w-a abantwana
food it-Past-cook-Appl-Pass-FV children
'Food was cooked for the children.'

Claim: Two Different Scope Orders for Appl and Pass

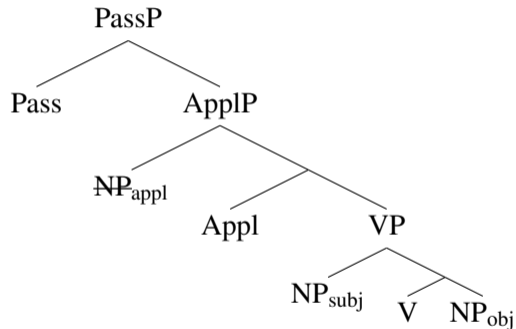
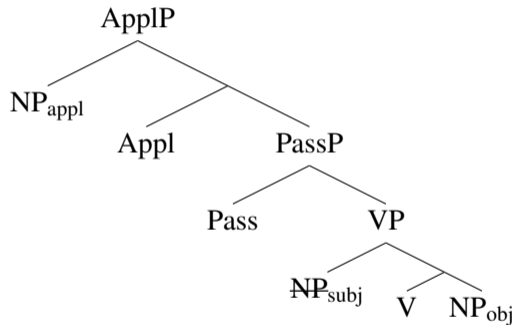
Hyman et al. (2009), Skinner (2009), Myler (2017):

- When the applied argument becomes the subject, Pass is taking scope over Appl;
- When the object of the verb becomes the subject, then Pass instead applies first, and Appl then adds an argument to that.
- Hyman et al. (2009) provide some evidence from reduplication to argue for this analysis.
- If this were correct, then the linear order of affixes Appl-Pass would correspond to two different scope orders.

On the Motivation for this Analysis

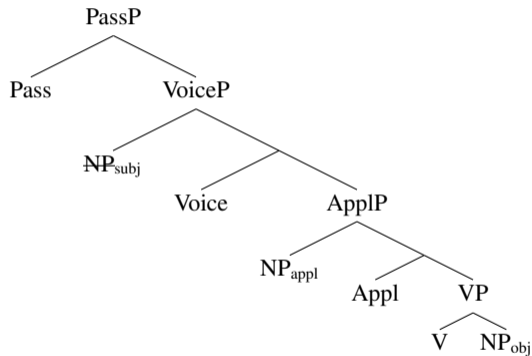
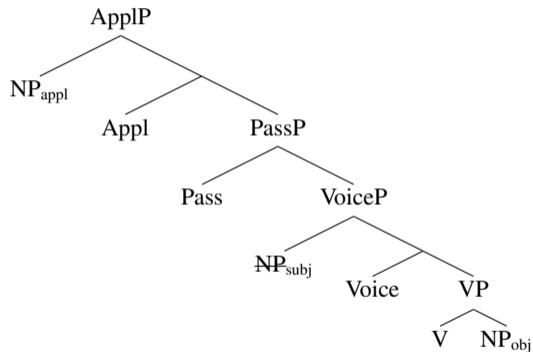
- Motivation seems to be to explain why the lower object can cross the higher one to become the subject in (9b).
- Analysis does not actually explain this:
- In both examples, the Pass head is suppressing the external argument.
- If the external argument is an argument of the lexical verb, then Pass can apply first and suppress it, followed by Appl attaching and adding the benefactive.
- However, if Pass instead attaches outside Appl, it would not be able to remove the external argument, because Appl is in the way.
- It should only be able to remove the applied argument.

Pass and Appl Where External Argument is Argument of V



- The only way to make this type of analysis work is to have the external argument introduced by a different head, call it Voice (Kratzer 1996);
- Voice can be merged either below or above Appl;
- If it is merged below Appl, then Pass can attach first and suppress its argument;
- If it is merged above Appl, then Pass will attach outside of that and suppress the external argument.
- Problem: The applied argument will be the highest NP in the passive in either case.
- It should always have to move to become subject.
- There is simply no way to explain the ability of the lower object to move over the higher as a different scope order for the two heads Appl and Pass.

Pass and Appl Where External Argument is Argument of Voice

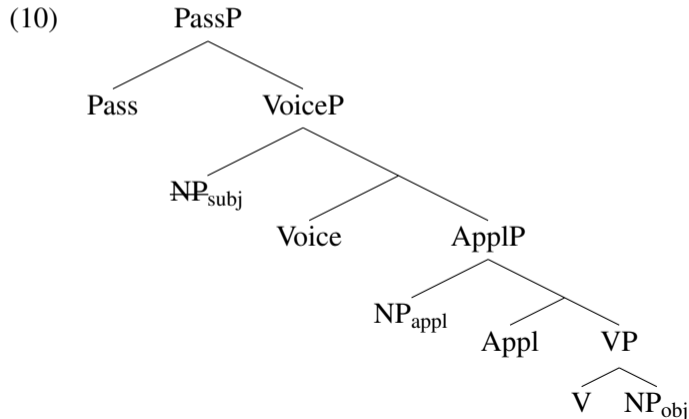


Additional Problem

- If we allow Voice to introduce the external argument below Appl,
- Then we expect that in the active, the applied argument, being higher than the external argument, could be the surface subject while the logical external argument is treated as an object.
- This is not correct, as far as I know:
- Applied arguments are always treated like objects in the active voice.

Conclusion: Appl and Pass

- This case has been misanalyzed;
- Both examples involve Pass taking scope over Appl, exactly as we would expect from the morpheme order.



How Do We Account for the Reduplication Data?

- (11) Ndebele (Hyman et al. 2009: 298, (53))
- a. abantwana b-a-phek-el-w-a ukudla
children they-Past-cook-Appl-Pass-FV food
'The children were cooked food.'
 - b. abantwana b-a-phek-e+phek-el-w-a ukudla
 - c. abantwana b-a-phek-a+phek-el-w-a ukudla
 - d. * abantwana b-a-phek-wa+phek-el-w-a ukudla
- (12)
- a. ukudla kw-a-phek-el-w-a abantwana
food it-Past-cook-Appl-Pass-FV children
'Food was cooked for the children.'
 - b. ukudla kw-a-phek-e+phek-el-w-a abantwana
 - c. ukudla kw-phek-a+phek-el-w-a abantwana
 - d. ukudla kw-phek-wa+phek-el-w-a abantwana

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“Asymmetric Compositionality”

Hyman (2003) claims that in Chichewa, one order of Caus and Recip is ambiguous, while the other is unambiguous:

(13) (Ryan 2010: (7a–b), citing personal communication from Larry Hyman and Sam Mchombo for the full forms)

- a. a-ku-máng-íts-a:n-a ~ a-ku-máng-án-i:ts-a
3Pl-Prog-tie-Caus-Rec-FV 3Pl-Prog-tie-Rec-Caus-FV
‘cause to tie each other’
- b. a-ku-máng-íts-a:n-a *a-ku-máng-án-i:ts-a
3Pl-Prog-tie-Caus-Rec-FV 3Pl-Prog-tie-Rec-Caus-FV
‘cause each other to tie’

Reciprocal and Causative in Nyakyusa

Order is fixed as V-Recip-Caus:

(14) Nyakyusa (Myler 2017: 105, (8))

- a. sob- ‘get lost (intr.)’
- b. sof-_j ‘to lose (tr.)’
- c. sob-an-_j ‘get each other lost’
- d. sof-an-_j ‘to lose each other’

- Myler describes (14c) as a “causativized reciprocal,” while (14d) is a “reciprocalized causative.”
- On this analysis, Recip applies first in (14c), as expected given the affix order, but Caus applies first in (14d).

(14) Nyakyusa (Myler 2017: 105, (8))

- a. sob- ‘get lost (intr.)’
- b. sof-_j ‘to lose (tr.)’
- c. sob-an-_j ‘get each other lost’
- d. sof-an-_j ‘to lose each other’

- The reciprocal has to be taking scope over the causative in both cases:
- It is not possible to reciprocalize an intransitive verb, since it only has one argument.
- Caus has to apply first, to add an argument, before Recip can apply and unify the two arguments with the semantics of a reciprocal.

Difference: One Event Versus Two

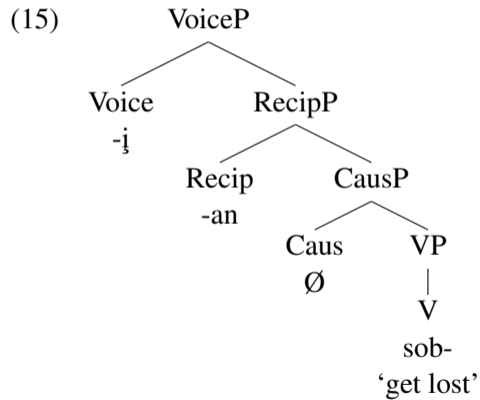
(14) Nyakyusa (Myler 2017: 105, (8))

- a. sob- ‘get lost (intr.)’
- b. sof-_i ‘to lose (tr.)’
- c. sob-an-_i ‘get each other lost’
- d. sof-an-_i ‘to lose each other’

- If the translations are accurate, the difference here is not scope, but what kind of causative it is.
- The one in (14c) seems to have two events, a causing event and a getting lost event;
- The one in (14d) instead has a single (transitive) event (like what is often regarded as a “lexical” causative).
- In both, Recip takes scope over Caus, it is just that Caus seems to have two different interpretations.

Analysis: Suffix $-j$ is Voice, Not Caus

- In Nyakyusa, Voice is only spelled out in the context of Caus (which is inside Recip).



(14) Nyakyusa (Myler 2017: 105, (8))

- a. sob- ‘get lost (intr.)’
- b. sof-_ɨ ‘to lose (tr.)’
- c. sob-an-_ɨ ‘get each other lost’
- d. sof-an-_ɨ ‘to lose each other’

- Myler was concerned with the question of why spirantization applies in (14d) but not (14c).
- In Myler’s scopal analysis, the reciprocal always intervenes between the root and Caus in (14c),
- But at some level the root and Caus are adjacent in (14d), so Caus can induce spirantization.
- This analysis cannot be correct, since Recip has to take scope over Caus even in (14c).
- An obvious alternative analysis is to say that the root has a special spirantized allomorph when it occurs in the environment of Caus as a “lexical” or single-event causative.

- Myler (2017) cites a 2000 manuscript by Hyman for these forms (“Bantu suffix ordering and its phonological consequences”).
- I have not been able to find this reference.
- I have also not been able to find the form in (14c) in Hyman’s published works that present causatives in Nyakyusa;
- Those works only present the form in (14d).
- (Myler spells the language “Nyakusa,” but Hyman’s published works spell it “Nyakyusa.” I have followed Hyman.)

Chichewa Case?

Hyman (2003) claims that in Chichewa, one order of Caus and Recip is ambiguous, while the other is unambiguous:

(16) (Ryan 2010: (7a–b))

- a. a-ku-máng-íts-a:n-a ~ a-ku-máng-án-i:ts-a
3Pl-Prog-tie-Caus-Rec-FV 3Pl-Prog-tie-Rec-Caus-FV
'cause to tie each other'
- b. a-ku-máng-íts-a:n-a *a-ku-máng-án-i:ts-a
3Pl-Prog-tie-Caus-Rec-FV 3Pl-Prog-tie-Rec-Caus-FV
'cause each other to tie'

- One possibility is that Caus creates a three-place predicate x causes y to tie z;
- Recip can operate on x plus either of y or z.
- If Recip applies first, there is only a two-place predicate, so no possibility of ambiguity.
- (Note that interpretations should be different: in (a) Caus-Recip would have x and z reciprocal, while Recip-Caus would have y and z reciprocal.)

(17) (Ryan 2010: (7a–b))

- a. a-ku-máng-íts-a:n-a ~ a-ku-máng-án-i:ts-a
3Pl-Prog-tie-Caus-Rec-FV 3Pl-Prog-tie-Rec-Caus-FV
'cause to tie each other'
- b. a-ku-máng-íts-a:n-a *a-ku-máng-án-i:ts-a
3Pl-Prog-tie-Caus-Rec-FV 3Pl-Prog-tie-Rec-Caus-FV
'cause each other to tie'

- Other possibility: As in many languages, Caus can embed a passive-like structure, where causee is suppressed.
- 'they cause someone to tie each other' or 'they cause each other to be tied'

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(18) Chichewa (Hyman 2003: 248, (3))

- a. alenjé a-ku-líl-íts-il-a mwaná ndodo
hunters 3.Pl-Prog-cry-Caus-Appl-FV child sticks
'the hunters are making the child cry with sticks'
- b. alenjé a-ku-tákás-its-il-a mkází mthíko
hunters 3.Pl-Prog-stir-Caus-Appl-FV woman spoon
'the hunters are making the woman stir with a spoon'

- Hyman: Appl applies outside Caus in (18a),
- But inside Caus in (18b).

Claimed Differences in Passivization

(19) Chichewa (Hyman 2003: 260, (22))

- a. ndodo i-ná-líl-its-il-idsw-á ána
stick Agr-Past-cry-Caus-Appl-Pass-FV children
'a stick was used to make the children cry'
- b. ?* aná a-ná-líl-its-il-idsw-á ndodo
children 3Pl-Past-cry-Caus-Appl-Pass-FV stick
'the children were made to cry with a stick'

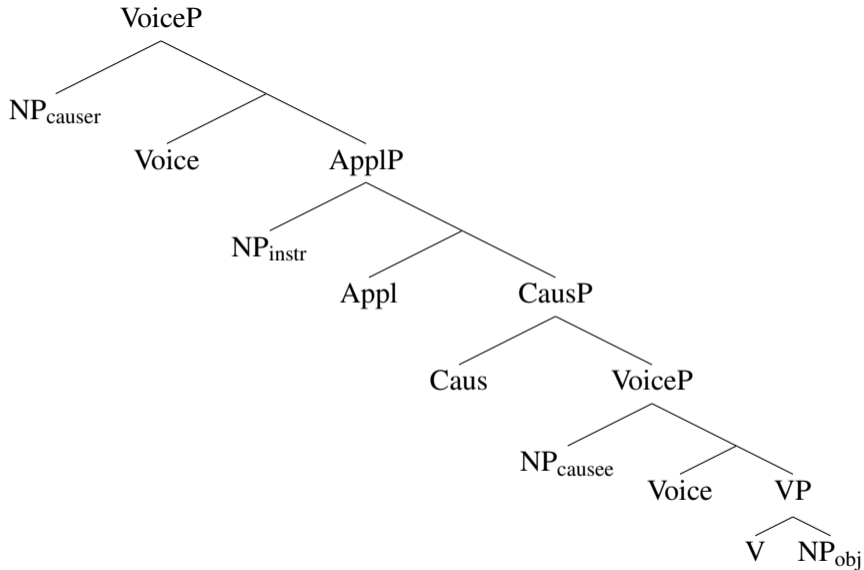
(20) Chichewa (Hyman 2003: 260, (23))

- a. aná a-ná-lím-its-il-idw-á mákásu
children 3Pl-Past-cultivate-Caus-Appl-Pass-FV hoes
'the children were made to cultivate with hoes'
- b. ?* makású a-ná-lím-its-il-idw-á ána
hoes 3Pl-Past-cultivate-Caus-Appl-Pass-FV children
'hoes were used to make the children cultivate'

Not a Necessary Analysis

- In this case, this is a possible analysis (unlike the other cases).
- Not the only possible analysis:
- The instrumental attaches outside of Caus in both cases, but when an instrumental modifies a complex event, it is capable of being interpreted with either sub-event.
- So it can modify either the causing event or the caused event.
- We know that this is possible for modifiers like *again*, for instance (see Dowty 1979, Egg 1999, Jäger & Blutner 2003, Williams 2015, Bruening 2015 for arguments against syntactic constituency analyses of *again*).
- It is therefore not *necessary* to treat the ambiguity of the instrumental as a scope ambiguity, as there is a plausible alternative analysis.

(21)



Perhaps there is a strong preference to associate the instrumental with the surface subject if they are different.

(22) Chichewa (Hyman 2003: 260, (22))

- a. ndodo i-ná-líl-its-il-idsw-á ána
stick Agr-Past-cry-Caus-Appl-Pass-FV children
'a stick was used to make the children cry'
- b. ?* aná a-ná-líl-its-il-idsw-á ndodo
children 3Pl-Past-cry-Caus-Appl-Pass-FV stick
'the children were made to cry with a stick'

And there is a strong preference to associate an instrumental in subject position with the highest event (causing event).

(23) Chichewa (Hyman 2003: 260, (23))

- a. aná a-ná-lím-its-il-idw-á mákásu
children 3Pl-Past-cultivate-Caus-Appl-Pass-FV hoes
'the children were made to cultivate with hoes'
- b. ?* makású a-ná-lím-its-il-idw-á ána
hoes 3Pl-Past-cultivate-Caus-Appl-Pass-FV children
'hoes were used to make the children cultivate'

Apparent “Scope” of Applicatives in Other Languages

(24) Fuuta Tooro Pulaar (Paster 2005: 182, (35–36); 178–179, (29–30))

- a. o irt-in-ir-ii / irt-ir-in-ii kam supu o lafi
3Sg stir-Caus-Appl-Past / stir-Appl-Caus-Past 1Sg soup Det knife
‘he made me stir the soup with a knife’ (he used a knife)
- b. o irt-ir-in-ii / irt-in-ir-ii kam supu o kuddu
3Sg stir-Appl-Caus-Past / stir-Caus-Appl-Past 1Sg soup Det spoon
‘he made me stir the soup with a spoon’ (I used a spoon)
- c. mi udd-it-ir-ii baafal ŋgal sawru
1Sg close-Rep-Appl-Past door Det stick
‘then I closed the door <again> with a stick <again>’ (first time: used a stick, or not)

- Applicatives are scopeless: When they modify a complex event, they can modify any of the subevents.

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