Forms and functions of noun modifying clauses in Bantu languages

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Bantu 6
Workshop1: Approaches to morphosyntactic micro-variation in Bantu

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Outline

• Teramura’s classification of noun modifying clauses
  • "inner relation" and “outer relation"
  • Japanese examples

• Examples of relative clauses in Bantu languages
  • Herero
  • Swahili
  • Jambian
  • Ganda
  • Bemba

• Conclusions
  • Summary: relation between the relative clause and its head noun
  • Suggested parameters
According to Matsumoto (1997), the main difference between inner and outer relations is characterized as follows: The inner relation is one in which the head noun can be inserted into the modifying clause to compose a sentence, whereas the outer relation is one in which the clause supplements the content of the meaning designated by the head noun.

- **Inner relation:** The head noun can be inserted as part of the modifying clause.

- **Outer relation:** The head noun cannot be inserted as part of the modifying clause.
Inner relation in Japanese

(1) a. **kuruma-wo ut-ta otoko**
car-ACC sell-PST man
'the man who sold a car'

b. **otoko-ga ut-ta kuruma**
man-NOM sell-PST car
'the car that the man sold'

\[ \downarrow \]

**Otoko-ga kuruma-wo ut-ta.**
man-NOM car-ACC sell-PST
'A man sold a car.'
Outer relation in Japanese 1

(2) **otoko-ga kuruma-wo ut-ta uwasa**

man-NOM car-ACC sell-PST rumor

Lit.: 'the rumor that the man sold a car'
(the rumor which is that someone sold a car.)

The head noun **uwasa** 'the rumor' cannot be inserted as part of the modifying clause 'the man sold a car'. 'the man sold a car' is the concrete **contents** of 'the rumor'.

= **appositive relation**

("noun complement" (Horie & Pardeshi 2009))
Outer relation in Japanese 2

(3) kuruma-wo ut-ta okane
    car-ACC    sell-PST   money
    Lit.: 'the money that (someone) sold a car'
    (the money that someone got by selling a car)

The head noun okane 'the money' cannot be inserted as part of the modifying clause 'he sold a car'.
'he sold a car' is the cause/reason of 'the money'.

= causal relation
Relation between the head noun & modifying clause

**Inner relation:**
The head noun can be inserted as part of the modifying clause.

- **Subject:** subject relativization
- **Object:** object relativization

**Outer relation:**
The head noun cannot be inserted as part of the modifying clause.

- **Appositive relation:** The modifying clause expresses the content of the head noun.

- **Causal relation:** There is a logical relation of causality between the head noun and the modifying clause.
In many Bantu languages, noun-modifying clauses are marked with a relative marker (RM) that agrees with the head noun.

ex. Swahili

(4)a. kitabu ni-li-cho-nunua jana
   7.book SM1S-PST-RM7-buy yesterday
   'the book which I bought yesterday'

b. malimu a-li-ye-nunua kitabu jana
   1.teacher SM1-PST-RM1-buy 7.book yesterday
   'the teacher who bought a book yesterday'

Relative clauses display similar structures across a number of Bantu languages. However, which nouns can be modified by these relative clauses is not uniform across the relevant languages, when we apply the binary classification of “inner relations” and “outer relations”.
Relative clauses in Bantu languages

• Herero:  Head N  +  (subject)  +  RM  +  Verb
• Swahili:  Head N  +  SM-TAM-RM-V.Stem  +  (subject)  
  (amba-less)
• Swahili:  Head N  +  amba-RM  +  (subject)  +  Verb  
  (amba)
• Jambian:  Head N  +  SM-TAM-RM-V.Stem  +  (subject)
• Ganda:  Head N  +  (subject)  +  RM  +  Verb
• Bemba:  Head N  +  RM  +  (subject)  +  Verb
Herero: Inner relation

(5) **Subject**

omítiri  ndjí  má-í  tjindír-é  koKákarára
9.teacher  RM9  PRG-SM9  move.to-NPF  to.Okakarara

'the teacher who will move to Okakarara'

(6) **Object**

embo  omítiri  ndá  rand-ere  eréro
5.book  9.teacher  RM5.SM3S.PST  buy-PF  yesterday

'the book that the teacher bought yesterday'
Herero: Outer relation

(7) Appositive relation

a. ??óngwízíkiró ndjí má-tú-hakáén-é pondátú
   9.promise   RM9     PRG-SM1P-meet-NPF   at.3. o’clock

b. óngwízíkiró kutja má-tú-hakáén-é pondátú
   9.promise   COMP    PRG-SM1P-meet-NPF   at.3. o’clock

c. óngwízíkiró yokútja má-tú-hakáén-é pondátú
   9.promise   GEN9:okutja PRG-SM1P-meet-NPF   at.3.o’clock

'the promise that we are meeting at 3 o’clock'

concrete contents of "promise" = "we are meeting at 3"
Herero: Outer relation

(8) Causal relation

a. *ómundúko onyáma mbi ma-i-tét-á
   3.smell   9.meat   RM3       PRG-SM9-be.grilled-NPF

b. ?ómundúko kutja onyáma ma-i-tét-á
   3.smell   COMP   9.meat   PRG-SM9-be.grilled-NPF

c. ómundúko wokutja onyáma ma-i-tét-á
   3.smell   GEN3:okutja   9.meat   PRG-SM9-be.grilled-NPF

Lit.: 'the smell that meat is being grilled'
(the smell caused by meat being grilled)

The head noun is the RESULT
Swahili: Inner relation

(9) **Subject**

a. *amba*-less relative

mwalimu a-li-ye-ni-pa kitabu

1.teacher SM1-PST-RM1-OM1S-give 7.book

b. *amba* relative

mwalimu amba-ye a-li-ni-pa kitabu

1.teacher amba-RM1 SM1-PST-OM1S-give 7.book

'the teacher who gave me a book'
Swahili: Inner relation

(10) **Object**

a. *amba*-less relative

  **kitabu**  a-li-cho-ni-pa  mwalimu  
  7.book  SM1-PST-RM7-OM1S-give  1.teacher

b. *amba* relative

  **kitabu**  amba-cho  mwalimu  a-li-ni-pa  
  7.book  amba-RM7  1.teacher  SM1-PST-OM1S-give

'the book that the teacher gave me'
Swahili: Outer relation

(11) Appositive relation

a. *amba*-less relative
   
   **matokeo** wa-li-**yo**-shindwa katika mchezo
   6.result SM3P-PST-RM6-lose in 3.game

b. *amba* relative
   
   **matokeo** amba-**yo** wa-li-shindwa katika mchezo
   6.result amba-RM6 SM3pl-PST-lose in 3.game

Lit.: 'the result that they lost the game'
   (the result, being that they lost the game)

concrete contents of "result" = "they lost the game"
Swahili: Outer relation

(12) Appositive relation

a. *amba-less relative
   *hadithi a-na-\(\text{yo}\)-wa-danganya tembo na mamba sungura.
   9.story SM1-PRS-RM9-OM2-cheat 1.elephant and 1.crocodile 1.hare
   Grammatical relation must be unambiguous

b. \textit{amba} relative
   hadithi \textit{amba-\(\text{yo}\)} sungura a-na-wa-danganya tembo na
   1.crocodile

Lit.: 'This is a story which a hare cheats a crocodile and an elephant'
(This is a story about a hare cheating a crocodile and an elephant)
Swahili: Outer relation

(13) Causal relation

a. *amba-less relative

*ugonjwa wa-li-o-kufa watu wengi
11.disease SM2-PST-RM11-die 2.people 2.many

b. amba relative

ugonjwa amba-o watu wengi wa-li-kufa
11.disease amba-RM11 2.people 2.many SM2-PST-die

Lit.: 'a disease which many people died'
(a disease which caused many people to die)

The head noun is the **CAUSE/REASON**
Swahili: Outer relation

(14) Causal relation

a. *amba-less relative

*pesa  ni-li-zo-uza  gari
10.money  SM1S-PST-RM10-sell  9.car

b. amba relative

pesa  amba-zo  ni-li-uza  gari
10.money  amba-RM10  SM1SS-PST-sell  9.car

Lit.: 'the money which I sold a car'
(the money I got for selling a car)

The head noun is the RESULT
Jambiani: Inner relations

(15) **Subject**

a. *mtu* a-ye-na-kuza matunda
   1.man SM1-RM1-PRS-sell 6.fruits

b. **mtu** m-na-kuza matunda
   1.man R.SM1-OM1S-give 6.fruits

'**the man** who is selling fruits'

(16) **Object**

**kitabu** a-cho-nunua Maria
   7.book SM1-RM7-buy 1.Maria

'**the book** that Maria bought’
(17) Appositive relation

hadithi a-yo-shindwa sungura kunako mashindano
9.story SM1-RM9-lose 1.hare inside 6.race
lit.: 'the story that the hare lost the race'
(the story, in which the hare lost the race)

(18) Causal relation

pesa n-zo-kuza gari
10.money SM1SG-RM10-sell 9.car
lit.: 'the money I sold the car'
(the money I got for selling the car)
Ganda: Inner relation

(19) Subject

a. *abasajja be ba-a-tund-a emmotoka
   2.men    RM2   SM2-PST-sell-FV   9.car
b. abasajja a-ba-a-tund-a emmotoka
   2.men    RPreP-SM2-PST-sell-FV   9.car

'the men who sold car'

(20) Object

emmeotoka basajja gye ba-a-tund-a
  9.car      2.men     RM9   SM2-PST-sell-FV

'the book that Maria bought'
Ganda: Outer relation

(21) Appositive relation

a. ??olugero akamyu lwe ka-a-limbir-a empisi
   11. story 12. hare RM11 SM12-PST-lie.to-FV hyena

b. olugero akamyu mwe ka-a-limbir-a empisi
   11. story 12. hare RM18 SM12-PST-lie.to-FV hyena

c. olugero akamyu lwe ka-a-limbir-a-mu empisi
   11. story 12. hare RM11 SM12-PST-lie.to-FV-LOC18 hyena

Lit.: 'story which a hare cheated a hyena'
(Story in which a hare cheated a hyena)
Ganda: Outer relation

(22) Causal relation

a. ??essente omusajja ze ya-tund-a emmotoka
   10.money  1.man       RM10  SM1.PST-sell-FV  5.car

b. essente omusajja mwe ya-tund-a emmotoka
   10.money  1.man       RM18  SM1.PST-sell-FV  5.car

c. essente omusajja ze ya-tund-a-mu emmotoka
   10.money  1.man       RM10  SM1.PST-sell-FV-LOC18  5.car

Lit.: 'money which I sold a car'
(money which he got for selling a car)
Bemba: Inner relation

(23) Subject
a. *umwaume uo a-fum-ile
   1.man      RM1    SM1-come-PERF
b. umwaume u-a-fum-ile
   1.man      RPreP1-SM1-come-PERF
   ‘the man who has arrived’

(24) Object
a. umwaume (uo) na-a-temweenwe
   1.man      RM1    SM1SG-PST4-like.PERF
b. *umwaume u-na-a-temweenwe
   1.man      RPreP1-SM1SG-PST4-like.PERF
   ‘the man who I liked’
Bemba: Outer relation

(25) **Appositive relation**

ilyashi (iryo) kalulu a-bepele fulunyemba
9.story RM9 1.hare SM1-cheat.PERF chameleon

Lit.: 'a story which a hare cheated a chameleon'
(a story in which a hare cheated a chameleon)

(26) **Causal relation**

? impiya (isho) umwaume a-shitiishe motokaa
10.money RM10 1.man SM1.PST-sell.PERF car

Lit.: 'the money which the man sold a car'
(the money the man got for selling a car)
The relative clause cannot be used in the case of relativisation of the subject. The same construction as normal clause is used.

(27) 'the man who sold the/a car.'
   a. *bamuna yamene ba-na-gulisa motoka
      man which SM3S-PST-sell car
   b. bamuna ba-na-gulisa motoka
      man SM3S-PST-sell car

cf. (28) bamuna ba-na-gulisa motoka
      man SM3S-PST-sell car
'The man sold the/a car.'
(29) **motoka** yamene bamuna ba-na-gulisa.
    car which man SM1-PST-sell
    ‘the car that the man sold’

(30) **kani** yamene kalulu a-na-nama mkango
    9.story which 1.hare SM1-PST-cheat 3.lion
    lit.: ‘the story that the hare cheated lion’
    (the story, in which the hare cheated lion)

(31) **dalama** yamene bamuna ba-na-gulisa motoka
    money which 1.man SM1-PST-sell car
    Lit.: ‘the money that the man sold’
    (the money I got by selling the car)
## Relative clauses and semantic relation

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<th>Language (Amba)</th>
<th>Inner relation</th>
<th>Outer relation</th>
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<td></td>
<td>Subject</td>
<td>others</td>
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<td>Yes</td>
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<tr>
<td>Swahili (amba-less)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Herero</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Ganda</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Jambiani</td>
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<tr>
<td>Bemba</td>
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<tr>
<td>Nyanja</td>
<td>No</td>
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## Forms of noun modifying clauses

<table>
<thead>
<tr>
<th>Inner relation</th>
<th>Outer relation</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Subject</td>
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<tr>
<td>Swahili (amba)</td>
<td></td>
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<td>Swahili (amba-less)</td>
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<tr>
<td>Herero</td>
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<tr>
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<td>rel. preprefix</td>
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<td>rel. SM</td>
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<td>Bemba</td>
<td>rel. preprefix</td>
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<td>Nyanja</td>
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Conclusions: Suggested parameters

Although relative clauses have similar structures across many Bantu languages, they show a wider range of variation in their behavior.

Suggested parameters of Noun modifying constructions

1. Is the relative clause used for the subject relativization?
2. Is the relative clause used for the relativization of augments other than subjects?
3. Is the relative clause used for modifying the noun in the appositive relation?
4. Is the relative clause used for modifying the noun in the causal relation?
5. Is the same noun modifying construction used for “no”s?
References

• Miyazaki, Kumiko (2012) “Noun-modifying clauses in Bantu languages —Data from Jambiani Swahili” International Workshop on Bantu Languages. Handout
• Teramura, Hideo.1977. “Rentai shuushoku no syntax to imi. sono 3 [Syntax and semantics of nominal modifiers. No.3]” Nihon-go/ Nihon-bunka. 6, 1-35.