TWO TYPES OF OBLIQUE APPLICATIVES IN KINYARWANDA*

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1. Locatives and Instrumentals as Objects.

In the Bantu language Kinyarwanda, as Kimenyi (1980) demonstrates, many "obliques"—such as the Locatives in (1) and the Instrumentals in (2)—can be expressed either as prepositional phrases, as in (1a) and (2a), or as objects in an applicative construction, as in (1b) and (2b).[1]

(1) a. Umugóre   y-oohere-je   umubooyi   kw'iisóko.
        woman   she-send-asp   cook   to market
        "The woman sent the cook to market."

     b. Umugóre   y-oohere-jé-ho   isóko   umubooyi.[2]
        woman   she-send-asp-to market   cook
        "The woman sent the cook to market."

(2) a. Umugabo   a-ra-andik-a   íbárúwa   n'ííkárámu.
        man   he-pres-write-asp   letter   with pen
        "The man is writing a letter with the pen."

     b. Umugabo   a-ra-andik-iish-a   íbárúwa   íkárámu.
        man   he-pres-write-instr-asp   letter   pen
        "The man is writing a letter with the pen."

Kimenyi (pp. 81-82; 94-96) shows that the "obliques" in (1b) and (2b) are objects by a variety of tests, including passivization, pronoun incorporation, and relativization, as shown in (3) for Locatives and (4) for Instrumentals.

(3) a. Iposita   y-oohere-j-w-é-ho   íbárúwa   n'úmugabo.
        post office   it-send-asp-pass-asp-to   letter   by man
        "The post office was sent a letter to by the man."

     b. Úmwáalímu   y-a-ry-oohere-jé-ho   igitabo.
        teacher   he-pst-it-send-asp-to   book
        "The teacher sent the book to it."

     c. íshuûri   úmwáalímu   y-oohere-jé-ho   igitabo
        school   teacher   he-rel-send-asp-to   book
        "the school that the teacher sent the book to"

(4) a. Íkárámu   i-ra-andik-iish-w-a   íbárúwa   n'úmugabo.
        pen   it-pres-write-instr-pass-asp   letter   by man
        "The pen is used to write a letter by the man."

     b. Úmwáalímu   a-ra-y-aandik-iish-a   íbárúwa.
        teacher   he-pres-it-write-instr-asp   letter
        "The teacher is writing a letter with it."

c. Dore   íkárámu   umugabo   y-aandik-iish-a   íbárúwa.
look   pen   man   he-rel-write-instr-asp   letter
"This is the pen that the man uses to write the letter."

The structure of (1b) and (2b) has sparked much discussion, since, as noted by Kimenyi, the initial direct object in (2b) retains its object properties. For example, it undergoes passivization, pronoun incorporation and relativization, as seen in (5).

(5) a. Íbárúwa   i-ra-andik-iish-w-a   íkárámu.
        letter   it-pres-write-instr-pass-asp   pen
        "The letter is being written with a pen."

    b. Umugabo   a-ra-y-andik-iish-a   íkárámu.
        man   he-pres-it-write-instr-asp   pen
        "The man is writing it with a pen."

    c. íbárúwa umugabo   y-aandik-iish-a   íkárámu
        letter   man   he-write-instr-asp   pen
        "the letter that the man is writing with a pen"

Since the Instrumentals in (2b) also show object properties, researchers (including Gary and Keenan (1977), Kimenyi (1980), and Bresnan and Moshi (1990)) have been led to the conclusion that such clauses have more than one direct object, thus violating the Stratal Uniqueness Law of Relational Grammar (Perlmutter and Postal (1983)):

(6) Stratal Uniqueness Law

    Let 'term$_x$' be a variable over the class of R-signs; that is '1', '2', or '3'. Then: If arcs A and B are both members of the C_k stratum and A and B are both term$_x$ arcs, then A=B.

Stated informally, the Stratal Uniqueness Law prohibits more than one nominal bearing the same term relation (1, 2, or 3) per stratum.

In contrast, the initial direct object in the locative applicative in (1b) loses its object properties, as the data in (7) show, and so has been claimed by Kimenyi (1980) to be a chômeur.

(7) a. *Igitabo   cy-oohere-j-w-é-ho   íshuûri   n'úúmwáalímu.
        book   it-send-asp-pass-asp-to   school   by teacher
        "The book was sent to school by the teacher."

    b. *Úmwáalímu   y-a-cy-oohere-jé-ho   íshuûri.
        teacher   he-pst-it-send-asp-to   school
        "The teacher sent it to school."

    c. *igitabo   úmwáalímu   y-oohere-jé-ho   íshuûri
        book   teacher   he-send-asp-to   school
        "the book that the teacher sent to school"

No Stratal Uniqueness Law violation is posited in the case of Locative applicatives.[3]

Thus, for Kimenyi there are two types of oblique-to-object advancement in

Kinyarwanda: those like Instr-to-object that result in double objects, as represented in the stratal chart in (8), and those like Loc-to-object that result in the chômage of the initial object, as represented in the stratal chart in (9).

(8)	1	P	2	INSTR		(9)	1	P	2	LOC
	1	P	2	2			1	P	CHO	2
	man	write	letter	pen			woman	sent	cook	market

Kimenyi's analysis raises two important questions. First, is there an alternative analysis which posits structures which conform to the Stratal Uniqueness Law? Second, why is there this difference between Instrumental and Locative applicatives? After all, if two object positions are available in Kinyarwanda, as necessary for (8) under Kimenyi's approach, why not make use of both object positions in Locative applicatives? Or alternatively, if Kinyarwanda has a way of licensing 2-chômeurs in Locative applicatives, why not make use of this relation in Instrumental applicatives?

This paper seeks to answer both of these questions. To address the issue of Stratal Uniqueness first, an alternative to Kimenyi's analysis is immediately apparent (cf. Perlmutter and Postal 1983). Instrumentals in applicatives are not direct objects, as posited by Kimenyi, but rather indirect objects, as represented in (10).

(10)	1	P	2	INSTR		(11)	1	P	2	LOC
	1	P	2	3			1	P	CHO	2
	man	write	letter	pen			woman	sent	cook	market

This proposal is consistent with what we know about indirect objects in Kinyarwanda. As Kimenyi (pp. 64-68) notes, both the direct object and the indirect object of ditransitive clauses like (12) exhibit object properties.

(12)   Umuhuûngu   y-a-haa-ye   umukoôbwa   igitabo
       boy   he-pst-give-asp girl   book
       "The boy gave the book to the girl."

Following Dryer (1983), we represent (12) as:[4]

(13)	1	P	3	2
	boy	give	girl	book

As (14) and (15) show, both the direct object and the indirect object can passivize, appear as incorporated pronouns, and relativize.

(14) a. Igitabo   cy-a-haa-w-e   umugóre   n'ûmugabo
        book   it-pst-give-pass-asp   woman   by man
        "The book was given to the woman by the man."
      b. Umugabo   y-a-ki-haa-ye   umugóre.
        man   he-pst-it-give-asp   woman
        "The man gave it to the woman."

c. igitabo   umuhuûngu   y-a-haa-ye   umukoôbwa
   book   boy   he-pst-give-asp   girl
   "the book which the boy gave the girl"

(15) a. Umugóre   y-a-haa-w-e   igitabo   n'ûmugabo
      woman   she-pst-give-pass-asp   book   by man
      "The woman was given the book by the man."

b. Umugóre   y-a-mu-haa-ye   igitabo.
      woman   she-pst-him-give-asp   book
      "The woman gave him a book."

c. umukoôbwa   umuhuûngu   y-a-haa-ye   igitabo
      girl   boy   he-pst-give-asp   book
      "the girl to whom the boy gave the book"

The direct object and indirect object do differ in several respects. For example, as Kimenyi (p. 182) points out, when both the direct object and indirect object are incorporated pronouns, the direct object precedes the indirect object, as (16) shows. The alternative order—that is, the incorporated indirect object preceding the direct object—is impossible.

(16)   Umugabo   y-a-yá-b-éerets-e
          man   he-pst-them-them-show-asp
          "The man showed them [pictures] to them [people]."

We see that pronoun incorporation also supports our claim that the applied instrumental is a final indirect object. As an incorporated pronoun it must follow the incorporated form of the direct object, as (17) shows.

(17)   Umugabo   a-ra-yi-y-aandik-iish-a.
          man   he-pres-it-it-write-instr-asp
          "The man is writing it with it."

We see then that an analysis positing final 3-hood for the instrumental in applicatives is consistent with the Kinyarwanda data. This analysis not only conforms with the Stratal Uniqueness Law, but it also allows a means for differentiating Instrumental applicatives from Locative applicatives, as discussed further below.

Let's turn next to the second problem: Why are Instrumental and Locative applicatives different?

2. Locatives vs. Instrumentals.

We propose that the applicative constructions in (1b) and (2b) differ because the structures that underlie them (i.e. (1a) and (2a)) differ. Contrary to other researchers' assumptions that both Locatives and Instrumentals are "oblique" nominals in initial structure, we claim that only Locatives, although they are obliques are nonetheless arguments of the predicate. Instrumentals, we claim, are not arguments of the main predicate in initial structure, but rather are adjuncts, and in RG terms, they constitute a predicate domain of their own. First, we give a number of ways in which Locatives and Instrumentals differ. Afterwards, we make our analyses of initial Locatives and Instrumentals more precise and show how the effects in section 2 are predicted. Furthermore, we show how the different initial structures

lead to applicatives with the different properties discussed above.

2.1 Oblique pronoun incorporation.

As illustrated above, object pronouns are incorporated into the verb complex in Kinyarwanda. An incorporated pronoun form *-ha* also exists to refer to Locatives:

(18)   Ba-ra-kí-há-shyir-a.
        they-pres-it-there-put-asp
        "They put it there."

In contrast, there is no form of incorporated pronouns for unadvanced Instrumentals, but only advanced Instrumentals in applicative structures like (2b) can be incorporated pronouns.

2.2 Oblique Subjects.

Kimenyi (pp. 129-130) shows that Locatives can be directly passivized, without being first advanced to object. In such passives, as in (19), the Locative appears with its preposition in subject position and the verb takes locative agreement.[5]

(19)   Kw'iiposita   h-ooherej-w-e   íbárúwa   n'úmugabo.
        to post office it-send-pass-asp   letter   by man
        "To the post office was sent the letter by the man."

Instrumentals, however, do not appear as subjects in such constructions:

(20)   *N'íkárámu   i-ra-andik-w-a   íbárúwa   n'úmugabo.
        with pen   it-pres-write-pass-asp letter   by man
        "With the pen is written the letter by the man."

Unlike Locatives, Instrumentals appear as subjects only in applied constructions, as in (4a).

2.3 Object/subject reversal.

Kimenyi (pp. 141-146) discusses a structure in which the word order of the subject and the object nominals is reversed, giving the sentence a "passive reading". No passive morphology appears on the verb or on the postposed subject. The verb in such clauses agrees with the preposed object, as illustrated in (21b).

(21) a. Umuhuûngu   a-ra-som-a   igitabo.
        boy   he-pres-read-asp   book
        "The boy is reading the book."
     b. Igitabo   cyi-ra-som-a   umuhuûngu.
        book   it-pres-read-asp   boy
        "The book is being read by the boy."

Locatives behave like objects with respect to object/subject reversal, since they can appear in preverbal position, as in (22). In this case the verb takes locative agreement (see Kimenyi, pp. 141-142).

(22)　Kw'iishuûri　　ha-gii-ye　　umúnyéeshuûri.
　　　 to school　　　 it-go-asp　　 student
　　　 "To school went the student."

Unadvanced Instrumentals, however, cannot appear in preverbal position in a reversal construction, as (*23) shows.

(23)　*N'ííkárámu　 i-ra-andik-a　　　 úmwáalímu.
　　　 with pen　　　 it-pres-write-asp　 teacher
　　　 "With pen writes the teacher."

2.4 Topicalization strategies.

As Kimenyi (pp. 191-196) points out, Locatives and Instrumentals are topicalized using different strategies. Locatives, like subjects, objects, indirect objects, and benefactives, are topicalized directly: the phrase appears to the left of the clause and the verb takes agreement/incorporation cross-referencing the preposed element. An example of a topicalized direct object appears in (24) and of a topicalized Locative in (25).

(24)　Igitabo,　　 úmwáana　 a-ra-gi-som-ye.
　　　 book,　　　 child　　　 he-pres-it-read-asp
　　　 "The book, the child has just read it."

(25)　Kuú　　 ntebe,　 ábáana　　 ba-ra-h-iica-ye.
　　　 on　　　 chair　　 children　　 they-pres-there-sit-asp
　　　 "On the chair, the children are sitting on it."

The Locative appears with its preposition and the verb shows locative agreement.
　　　 In contrast, Instrumentals cannot be topicalized in this fashion:

(26)　*N'ííkárámu,　 umukoôbwa　 a-ra-y-andik-a　　 íbárúwa.
　　　 pen　　　　　 girl　　　　　 she-pres-it-write-asp　 letter
　　　 "The pen, the girl is writing a letter with it."

Instead, a second strategy, involving a resumptive pronoun, is used to topicalize Instrumentals:

(27)　Íkárámu,　 umukoôbwa　 a-ra-andik-a　　　 íbárúwa　 ná　 yo.
　　　 pen　　　　 girl　　　　　 she-pres-write-asp　 letter　　 with　 it
　　　 "The pen, the girl is writing a letter with it."

This strategy is used to topicalize other elements, including possessors and nominals within relative clauses. However, Locatives cannot be topicalized in this manner, as (*28) shows.

(28)　*Íntebe,　 umukoôbwa　 a-z-iicar-a　　 kûrí　 yo.
　　　 chair　　　 girl　　　　　 she-fut-sit-asp　 on　　 it
　　　 "The chair, the girl will sit on it."

2.5 Possessor ascension hosts.

As proposed by Kimenyi (pp. 97-98) and refined by Bickford (1986), Kinyarwanda has possessor ascension, where a possessor ascends to take on an object role.[6] As seen in (29a), possessors typically follow their heads and are introduced by a preposition, but when they ascend to object, as in (29b), they precede their heads and appear without a preposition.

(29) a. Umuhuûngu   y-a-twaa-ye   igitabo   cy'ûmukoôbwa.
       boy   he-pst-take-asp   book   of girl
       "The boy took the book of the girl."
     b. Umuhuûngu   y-a-twaa-ye   umukoôbwa   igitabo.
       boy   he-pst-take-asp   girl   book
       "The boy took the girl's book."

In the above example, the object serves as the host for possessor ascension. Locatives can also host ascension, as (30b) shows.

(30) a. Úmwáana   y-a-andits-e   izíná   rye   mu   igitabo   cy'ûmugabo.
       child   he-pst-write-asp   name   his   in   book   of man
       "The child wrote his name in the man's book."
     b. Úmwáana   y-a-andits-e   umugabo   mu   igitabo   izíná   rye.
       child   he-pst-write-asp   man   in   book   name   his
       "The child wrote his name in the man's book."

In contrast, unadvanced Instrumentals cannot serve as possessor ascension hosts:

(31) a. Umuhuûngu   y-a-andits-e   íbárúwa   n'ííkárámu   y'ûmukoôbwa.
       boy   he-pst-write-asp   letter   with pen   of girl
     b. *Umuhuûngu   y-a-andik-i-ye   íbárúwa   umukoôbwa   n'ííkárámu.
       boy   he-pst-write-appl-asp   letter   girl   with pen
       "The boy wrote the letter with the girl's pen."

2.6 Derivational causatives.

Kimenyi (pp. 164-165) discusses causatives formed with the derivational affix -iish. In such causatives, the causee appears immediately after the verb:[7]

(32)   Umugabo   a-ra-som-eesh-a   ábáana   ibitabo.
       man   he-pres-read-caus-asp   children   books
       "The man is making the children read the books."

As (33) shows, derivational causatives can be formed on a clause containing a Locative.

(33)   Umugóre   y-iica-j-e   úmwáana   kuú   ntebe.
       woman   she-sit-caus-asp   child   on   chair
       "The woman made the child sit on the chair."

In contrast, derivational causatives cannot be formed on clauses that contain Instrumentals:

(34) *Úmwáalímu   a-ra-andik-iish-a   umúnyéeshuûri n'ífkárámu.
     teacher   he-pres-write-caus-asp   student   with pen
     "The teacher made the student write with a pen."

2.7 Summary.

We have shown that Locatives and Instrumentals differ systematically in a variety of constructions. Locatives have a more privileged status than Instrumentals in that they can appear as incorporated pronouns, subjects in passives, preposed nominals in subject reversal constructions, direct topics, possessor ascension hosts, and as an element in the inner structure of a derivational causative. Locatives do many, though not all, of things that direct and indirect objects do, though they often require special morphology to do so. This sets up a three way distinction in argument struture for Kinyarwanda. There are two classes of arguments: **direct arguments** (like direct and indirect objects), **oblique arguments** (like the locatives discussed here), and non-argument **adjuncts** (like instrumentals).

3. Our analysis.

Next we turn to the problem of assigning relational structures to Locatives and Instrumentals and showing how these structures relate to applicative constructions.

The discussion above has led to the conclusion that unadvanced Locatives, like those in (1a) above, are oblique arguments of the predicate, and thus are appropriately represented by the structure in (35).

(35)   1   P   2   LOC
        woman   send   cook   market

Given that locatives are initially oblique, we account for locative applicatives like (1b) by positing advancement. To make our claim precise, we posit that Locative advancement in Kinyarwanda involves first an advancement to 3 and then an advancement to 2. Evidence for this claim comes from examples like (36b) where Locative advancement takes place in a clause which contains an initial indirect object.

(36) a. Umugóre   a-ra-he-er-a   umuhuûngu   ibitabo   mw'iishuûri.
        woman   she-pres-give-appl-asp boy   books   in school
        "The woman gave the boy books in school."
     b. Umugóre   a-ra-he-er-a-mo   ishuûri   umuhuûngu ibitabo.
        woman   she-pres-give-appl-asp-loc school   boy   books
        "The woman gave the boy books in school."

Not only is the direct object placed en chômage, as in (7) above, but, as Kimenyi (p. 96) notes, the indirect object also loses its object properties. For, example, it does not passivize (37a), nor is it referred to by an incorporated pronoun (37b).[8]

(37) a. *Umuhuungu a-rá-hé-er-w-á-mo   ishuûri ibitabo n'ûmugóre.
         boy   he-pres-give-appl-pass-asp-in school   books   by woman
         "The boy is given the books in the school by the woman."

b. *Umugóre   a-rá-mu-hé-er-á-mo   ishuûri   ibitabo
   woman   she-pres-him-give-appl-asp-loc   school   books
   "The woman is giving him the books in the school."

Thus, we posit Loc-3-2 advancement for examples like (36b), as represented in (38).

(38)   1   P   2   3   LOC
           1   P   2   CHO   3
           1   P   CHO   CHO   2
       woman give books   boy   school

To put this in other terms, assigning the Locative a direct argument position is only possible if other direct arguments are delinked or dumped from their positions.

     Instrumental applicatives are very different in this respect. Instrumentals are not arguments of the main predicate in initial structure but rather are adjuncts constituting a predicate domain of their own that is linked to the main clause to form a sentence, as represented by the bracketed structure for (2a) given in (39).

(39) [[Umugabo arandika íbárúwa][n'ííkárámu.]]

The adjunct domain is island-like with respect to constructions affecting argument structure. Thus, Instrumentals cannot appear as incorporated pronouns, subjects in passives, preposed nominals in object/subject reversal constructions, direct topics, and possessor ascension hosts. Also, Instrumentals are predicted not to be able to form Causatives, since derivational causatives in Kinyarwanda are not formed on complex structures.

     Furthermore, Instrumentals are also ineligible for advancement ot object. Thus an advancement analysis of Instrumental applicatives like (2b), like those posited in (8) or (10) above, are inappropriate. However, a construction is available in RG that appropriately allows structure sharing between two predicate domains: the multipredicate clause, as posited by Davies and Rosen (1988). Multipredicate clauses, which are a reworking of the notion of Clause Union in classic RG, have been posited in the analysis of many kinds of structure-sharing constructions, including Causatives, Desideratives, Resultatives, Adversity Passives, Light Verbs, Serial Verbs, Possessive Ascension, Noun Incorporation and Duration/Frequency adverbs (see Gerdts 1988, in press, and references therein). We suggest that this concept can also be used in the treatment of Instrumental applicatives.

     First, we illustrate the notion of multipredicate clause by discussing derivational causatives in Kinyarwanda. For a Causative such as (40), we propose the structure in (41).

(40)   Umugabo   á-r-úubak-iish-a   abákozi   inzu.
        man   '   he-pres-build-cause-asp   workers   house
        "The man is making the workers build the house."
(41)   P   1   2
       1     $\hat{P}$ P   3   2
       man   build   -iish   workers house

The analysis in (41) claims that (40) is a single clause with two predicate domains. The first

predicate *-ubak* "build" has two arguments: a subject and a direct object. The Causative morpheme is the second predicate. Besides having a subject of its own (the "causer"), the second predicate also inherits the direct object from the inner clause. Furthermore, the subject of the first predicate is revalued as the indirect object of the second predicate. Thus, the Causative morpheme has the effect of increasing the valence of *-ubak* "build" from a two-place predicate to a three-place one. The claim then is that Kinyarwanda causatives, like causatives in French, Georgian, Ilokano, Turkish, and many other languages, are structure building. These languages contrast with Chamorro, Choctaw, Halkomelem, Swahili, and many other languages, whose causatives are not structure building (see Gerdts in press, and references therein). Positing the first type of causative for Kinyarwanda is consistent with the fact that both the causee (cf. 42) and the initial direct object (cf. 43) have object properties (Kimenyi, pp. 170-171); for example, they passivize and can appear as incorporated pronouns:

(42) a. Abákozi   bá-r-úubak-iish-w-a   inzu   n'úmugabo.
        workers   they-pres-build-caus-pass-asp   house   by man
        "The workers are made to build the house by the man."
     b. Umugabo   a-rá-b-úubak-iish-a   inzu.
        man   he-pres-them-build-caus-asp   house
        "The man is making them build the house."
(43) a. Inzu   í-r-úubak-iish-w-a   abákozi   n'úmugabo.
        house   it-pres-build-caus-pass-asp   workers   by man
        "The house is being made to be built by the workers by the man."
     b. Umugabo   a-rá-y-úubak-iish-a   abákozi.
        man   he-pres-it-build-caus-asp   workers
        "The man is making the workers build it."

We claim that Instrumental applicatives likewise involve a multipredicate clause.[9] In fact, this is a multipredicate clause with the same structure, and also the same morphology as a causative.[10] Thus, we would also represent (2b) as in (44); the Instrumental is the subject of a first predicate that is revalued to 3, while the direct object of the first predicate inherits its role.[11]

(44)   P   1   2

      1   P̂   P   3   2

      man   write   -iish   pen   letter

The structure in (44), since it posits that both the Instrumental and the direct object are final objects, explains why both nominals have object properties (cf. (4) and (5) above).

There are several ways in which the Causee in derivational Causatives and the Instrumental in applicatives behave like indirect objects rather than direct objects, thereby supporting this analysis. Recall that, when both direct objects and indirect objects appear as incorporated pronouns, the indirect object follows the direct object, as (45):

(45)   Umugabo   y-a-yá-b-éerets-e
        man   he-pst-them-them-show-asp
        "The man showed them [pictures] to them [people]."

The incorporated pronoun referring to the Causee in (46) and the Instrumental in (47) appears after the pronoun referring to the direct object, as predicted by (41)/(44).

(46)   Umugabo   a-rá-yi-b-uubak-iish-a.
        man   he-pres-it-**them**-build-caus-asp
        "The man is making **them** build it."
(47)   Umugabo   a-ra-yi-y-aandik-iish-a.
        man   he-pres-it-it-write-instr-asp
        "The man is writing it with it."

In summary, we claim that Instrumental applicatives do not involve Instrumental adjuncts in initial structure. Rather, they are multipredicate clauses having the same structures as derivational Causatives in Kinyarwanda. These are structure building, therefore instrumental applicatives are finally ditransitive.

4. Multiple Applicatives.

Our analysis differs significantly from Kimenyi's in several respects. For example, it does not posit that both Locatives and Instrumentals in applicative constructions are initial obliques as Kimenyi's does. The difference in the two analyses becomes clearer when we consider cases of multiple applicatives, that is, examples like (48) which are simultaneously both an instrumental applicative and a locative applicative.

(48)   Úmwáalímu   y-a-andik-iish-ijé-ho   ikíbáho   imibáre   íngwa.
        teacher   he-pst-write-instr-asp-on   board   math   chalk
        "The teacher wrote math on the blackboard with chalk."

In the initial structure assigned to such clauses by Kimenyi both the Locative and the instrumental of initial obliques and both advance to object. A priori, either instrumental advancement could be earlier than locative advancement, as represented in (49a), or vice versa as represented in (49b).

(49) Prediction under Kimenyi's analysis:

a.	1	P	2	LOC	INSTR
	1	P	2	LOC	2
	1	P	CHO	2	CHO
	teacher	write	math	board	chalk
b.	1	P	2	LOC	INSTR
	1 '	P	CHO	2	INSTR
	1	P	CHO	2	2
	teacher	write	math	board	chalk

In fact, Kimenyi supplies the data that allows us to choose between these analyses. As predicted by (49a) but not (49b), only the Locative nominal shows the properties of final object in multiple applicatives. So, for example, the locative can be the subject of a passive, as in (50), but the instrumental and the initial object cannot be, as (*51) and (*52) show.

(50) Ikíbáho   cy-a-andik-iish-ij-w-é-ho   imibáre   íngwa   n'úúmwáalímu.
     board   it-pst-write-instr-asp-pass-asp-on   math   chalk   by teacher
     "The blackboard was written math on with chalk by the teacher."

(51) *Íngwa   y-a-andik-iish-ij-w-é-ho   ikíbáho   imibáre   n'úúmwáalímu.
     chalk   it-pst-write-instr-asp-pass-asp-on   board   math   by teacher
     "The chalk was used to write math on the board by the teacher."

(52) *Imibáre   y-a-andik-iish-ij-w-é-ho   ikíbáho   íngwa   n'úúmwáalímu.
     math   it-pst-write-instr-asp-pass-asp-on   board   chalk   by teacher
     "Math was written on the board with the chalk by the teacher."

Kimenyi's analysis (49a) thus accommodates the correct results.[12] However, there is no rationale given for the prohibition of (49b). Apparently, this must be stipulated in the grammar.

Our grammar fares better in this respect. The analysis in (53) involving first the revaluation in the multipredicate clause and then Locative advancement predicts the correct array of data: only Locatives show final object properties.

(53) Prediction under our analysis:

	P		1	2	LOC
	P		1	2	LOC
1	P̂	P	3	2	LOC
1	P̂	P	CHO	2	3
1	P̂	P	CHO	CHO	2
teacher	write	iish	chalk	math	board

Furthermore, an alternative analysis which would require Locative advancement in the inner stratum and revaluation in a latter stratum is independenly ruled out for Kinyarwanda. In Kinyarwanda there is a general prohibition on argument restructuring rules in the inner predicate domain of any multipredicate construction. For example, passives, reflexives, and object/subject reversals are all ruled out in the inner domain of Causatives or Instrumental applicatives in Kinyarwanda.[13] Given the general inner freeze for Kinyarwanda, nothing further needs to be said about multiple applicatives like (48).

5. Conclusion.

We have shown that Locatives and Instrumentals in Kinyarwanda have different structures: Locatives are oblique arguments; Instrumentals are adjuncts. This posited difference in structure explains why Locative applicatives and Instrumental applicatives differ. Locative applicatives involve the advancement of an oblique to object; the initial direct object is a chômeur as expected in Locative applicatives. Instrumental applicatives, however, do not involve Instrumental adjuncts in initial structure. Rather, they are multipredicate clauses having the same structures as derivational Causatives in Kinyarwanda.

Our analysis motivates a difference between Locative and Instrumental applicatives that follows from their initial structures. The difference between these structures under Kimenyi's

analysis was merely stipulated. Under our analysis this difference is expected. Moreover, the constructions we posit for Kinyarwanda, namely oblique advancements creating chômeurs and valence-increasing multipredicate clauses, are well attested in languages of the world.

Furthermore, given that Kinyarwanda has inner clause freeze effects in multipredicate clauses, we make the correct prediction concerning the multiple applicative construction. As the analysis in (53) shows, revaluation in the multipredicate clause precedesLocative advancement; thus, only the locative nominal exhibits object properties

A further feature of our analysis is that it accommodates the Kinyarwanda data without violating the Stratal Uniqueness Law. We propose then that Kinyarwanda is not a multiple object language, as claimed by Gary and Keenan, Kimenyi, and others, and it cannot be used to motivate the concept of multiple object languages in universal grammar.

Notes.

[1]Much of the data in this paper is from Kimenyi (1980). We have followed his system of interlinear glosses, which he gives on p. xv. The following Relational Grammar abbreviations are used: 1 subject, 2 object, 3 indirect object, CHO Chômeur, INSTR Instrumental, LOC Locative, P Predicate, and P̂ P-chômeur.

[2]Our Kinyarwanda consultant thinks that sentences like (1b) are somewhat artificial. He considers the sentences in (3) to be less so.

[3]In the parlance of Bresnan and Moshi (1990), Kinyarwanda is a symmetrical language if (2b) is considered but an asymmetrical language if (1b) is considered.

[4]This contrasts with an analysis for (12) involving retreat (Perlmutter and Postal 1983, Perlmutter 1989), as represented in (i):

(i)   1   P   2   3
         1   P   3   2
         boy   give book girl

See Gerdts and Whaley (1991) for a brief discussion.

[5]Bresnan and Kanerva (1989) give an extensive discussion of the same phenomenon in Chicheŵa.

[6]Bickford (1986) argues that inalienable possessors ascend to 2 while alienable possessors ascend to 3.

[7]A variety of forms mark the causative, including -eesh and -j.

[8]Kimenyi's data and those of our consultant thus contradict the data in Dryer (1983).

[9]This claim is the RG equivalent of the structure for English instrumentals posited by Lakoff (1968). Lakoff's analysis, however, is a biclausal one while ours is monoclausal.

[10]Noting that Instrumental applicatives and Causatives take the same verbal morphology -iish, Kimenyi (p. 164) suggests: "Causatives and instrumentals are in fact drawn from the same structure, the only difference being that while subjects of causatives are always animate, those of instrumentals are inanimate." However, he does not give a reanalysis of instrumental applicatives along these lines.

[11]Revaluation in Kinyarwanda is actually more complicated than this, as discussed in Gerdts and Whaley (in preparation). The inner 1 is revalued as a 2, 3, or 4, depending on the valence of the second predicate.

[12]However, the data in (50)-(52) are problematical for the analysis of multiple applicatives given by Perlmutter (1989). Perlmutter posits that Instrumental applicatives involve retreat-inducing advancements to 2, while Locative applicatives involve chômage-inducing advancements to 2, and posits the following structure for sentences like (48):

(i)	1	P	2	INSTR	LOC
	1	P	3	2	LOC
	1	P	3	CHO	2
	teacher	write	math	chalk	blackboard

Thus, both the theme and the locative nominals should exhibit object properties and (52) is incorrectly predicted to be grammatical.

[13]Due to lack of space, we give no discussion of inner freeze effects here. See Gerdts and Whaley (in preparation) for data and discussion.

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