

STRATEGIES IN CONSTRUCTING A DEFINITE DESCRIPTION:
 SOME EVIDENCE FROM KINYARWANDA

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1. Introduction¹

It is generally agreed that adjective and relative-clause modifiers in definite noun phrases help to establish unique referents for the noun phrases. We may refer to this as the establishment of a definite description. Definite description is achieved when the speaker has sufficiently modified the head noun so that the referent can be identified by the hearer. Presumably, no further modification is then added. That is, if a single modifier is judged by the speaker to have established the unique referent, no further modification is required. If the definite description has not been achieved, the speaker must repeat the application of the description mechanism to further restrict the range of possible referents. Restrictive modification often consists of information known to both speaker and hearer through previous discourse or through common knowledge about the real world. The speaker can presumably call upon any of this information to identify the individual (or group) he wishes to refer to. If a second (or third, etc.) modifier is necessary, it may appear with or without a conjunction, or, alternatively, with or without an intonational marker. If a conjunction or intonational marker is utilized, we may refer to the restrictive modifiers as conjoined; if no conjunction or intonational marker is utilized, we may refer to them as stacked.

Most past discussion of recursive modification of this type was restricted to rather gross points of syntax, for instance, whether two different syntactic configurations in the deep structure were warranted (cf. Stockwell, Schachter, & Partee [1973], Thompson [1970],

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Walusimbi and Givón [1970]). It has been noted, though, (in the above-mentioned works and also in Givón [1972]) that a change of the relative order of adjectives (or in the case of English, a change in the relative stress) does not change the unique referent of the modifiers, but rather does result in a change of the strategy for definite description. Thus, (1) below:

(1) the big red house

is properly used when there are a number of red houses, only one of which is big. Alternatively, (2):

(2) the big red house

would be used when there are a number of big houses and only one is red. These contrasts are indicated by stress in English (because of the often-rigid adjective order), but would be indicated in Bantu languages by ordering of the adjectives: the last modifier functions as the one more heavily stressed. Modifiers in a stacked construction, therefore, exhibit different relationships to the rest of the discourse, and their ordering, or relative stress, is inextricably related to aspects of the discourse. It is normally assumed that switching the order or stress placement of conjoined restrictive modifiers does not involve emphasis change of this same type. Thus, in English, if a comma were used to indicate an intonational break (as in (3)) it would be odd and would be contrastive in a very different way from (2).

(3) ?the big, red house

Example (3) would probably be used only to correct misinformation, for example, if (4) were mistakenly used:

(4) the big blue house

Example (3) does not show the type of relationship to the discourse context that (2) does.

Some previous writers have attempted to account for the semantic implications of ordering constraints on restrictive modifiers. These

discussions have generally been restricted to the often rigidly-ordered English adjectives. For instance, Vendler [1963] observed that certain semantic restrictions obtained when several (restrictive) adjectives modified the same noun. Gruber [1967] has contended that these semantic restrictions involve the hierarchy of semantic features, so that modifiers involving 'more general' (or 'higher') features come closer to the noun in English, while those involving 'more specific' (or 'lower') features come further away from it. The data reported in this paper in some sense confirm this observation in showing that these features seem to be relevant also for Kinyarwanda. This paper presents an attempt to elaborate on Gruber's observation and to extend it to cover a wider universe of restrictive modifiers, including also locative phrases and relative clauses. We will attempt to show how, in addition to some kind of 'hierarchy of generality', other considerations, some pragmatic and some syntactic, contribute to the construction of definite description. We will also contend that the hierarchy of generality represents a 'rule of economy' whereby the speaker narrows the domain in definite description by beginning with the most general information and only goes as far towards specificity as is necessary to establish unique reference.

2. Adjectives and Relative Clauses in Kinyarwanda

In Kinyarwanda, as in all Bantu languages, the category adjective is formally distinct from relative clause. The distinction is both morphological and syntactic. In the morphology, the agreement prefix of adjectives, for noun classes with the underlying NV- morphemes (such as mu-, mi-, ma-, N), is the same as for the noun (as in (5a) and (5b)), while that of verbals (including relative clauses) is not (as in (6a) and (6b)):²

- | | | | |
|-----|----|--------------------|--------------------|
| (5) | a. | umugaBo ni mu-nini | 'The man is big.' |
| | b. | umugaBo mu-nini | 'the big man' |
| (6) | a. | umugaBo yaa-giiye | 'The man left.' |
| | b. | umugaBo wa-giiye | 'the man who left' |

²Kinyarwanda is a tone language but since tone is irrelevant to the topic under discussion it is not marked.

Syntactically, when adjectives are embedded as modifiers both the copular element *ni* and any tense/aspect carried by it are lost. But if the implication is that the property in question was characteristic only temporarily, a suppletive copular form with the tense/aspect is retained:

- (7) a. *umugaḅo ya-ri mḡ-iiza* 'The man was good.' (but isn't now)
 b. *umugaḅo wa-ri mḡ-iiza* 'the man who was good' (but isn't now)

The adjective category in Kinyarwanda is very restricted and includes only eight members:

- | | | | | |
|-----|-------|---------|-------|----------|
| (8) | -iiza | 'good' | -ḅisi | 'unripe' |
| | -ḅi | 'bad' | -to | 'small' |
| | -gufi | 'short' | -nini | 'big' |
| | -rere | 'tall' | -ḅa | 'new' |

These may all be classified as inherent properties (-ḅisi and -ḅa are inherent in the sense that items are "originally" unripe or new and "acquire" ripeness or age). Inherent properties occur as noun modifiers in two other ways as well. There is the possessive-type construction:

- (9) *inzu yumutuku*
 house of-redness
 'the red house'

and the relative clause-type construction:

- (10) *iḡitaḅo kiremereye³*
 book heavy
 'the book which is heavy'

In addition, this language also allows derivations of states from verbal events or actions, so that acquired permanent properties such as broken, dead, bent, burnt, etc. formally appear as verbal modifiers. These distinctions are important since they allow us to distinguish the syntactic from the semantic ordering strategies for separate assessment.

³[ḡ] = voiced palatal stop; [k̠] = voiceless palatal stop.

3. Hierarchies and Strategies in the Ordering of Adjectives

Kinyarwanda allows variant order of 'stacked' restrictive adjectives. The function of the ordering is potentially similar to that of contrastive stress in English:

- (11) a. umugaBo munini mjiiza 'the good big man'
 b. umugaBo mjiiza munini 'the good big man'

Conjoined adjectives do not present this contrast:

- (12) a. umugaBo munini kaandi mjiiza 'the big and good man'
 b. umugaBo mjiiza kaandi munini 'the good and big man'

While orders (11a) and (11b) are both acceptable in some cases, speakers have definite order preferences. This may be exemplified in the following contrast:

- (13) a. umugaBo wiraBura wumurgwaayi n'umutxwaare
 man of-blackness of-sick is-chief
 'The black man who is sick is the chief.'
 b. umugaBo wumurgwaayi wiraBura n'umutxwaare
 man of-sick of-blackness is-chief
 'The sick man who is black is the chief.'

The order in (13a) is the most natural one, i.e.:

- (14) inherent property + temporary condition.

In fact, the interpretation most readily assigned to the order in (13b) is that the man is a chronic invalid, in other words, permanently/inherently sick. Another context in which (13b) would be acceptable is if the topic of previous discourse were 'sick men', and the speaker identified the chief as the black one. Thus, the strategy for achieving emphasis (as in (11)) or that illustrating a real-world or discourse fact (as in (13b)) may over-rule the unmarked hierarchy given in (14).

Similarly, consider the contrast:

- (15) a. ikuma kinini kavunitse kiri kumeeza
 knife big broken is on-table
 'The big knife that is broken is on the table.'

- b. iKuma Kavunitse Kinini Kiri kumeeza
 knife broken big is on-table
 'The broken knife that is big is on the table.'

The order in (15a) is again the preferred one, with the inherent property of size preceding the newer (or acquired) condition of being broken.

But again, in a situation where a number of knives under discussion are broken, but only one is big, (15b) exhibits the preferable ordering.

As can be seen above, discourse-pragmatic considerations seem to interfere with the basic semantic hierarchy for determination of adjective order. To separate the two, in the following examples the adjectives are presented in the predicate, where they are considered new information and thus independent of any prior discourse.

- (16) a. kumeeza hari iğitaḅo Kinini ğiça
 on-table is book big new
 'On the table there is a big new book.'
- b. ?kumeeza hari iğitaḅo ğiça Kinini
 on-table is book new big
- (17) a. kumeeza hari iğitaḅo Kinini ğiškwanutse
 on-table is book big torn
 'On the table there is a big torn book.'
- b. ?kumeeza hari iğitaḅo giškwanutse Kinini
 on-table is book torn big
- (18) a. muburiri hari umḡaana nuto urgwaaye
 on-bed is child small sick
 'On the bed there is a small sick child.'
- b. ?muburiri hari umḡaana urgwaaye nuto
 on-bed is child sick small
- (19) a. kumeeza hari iğitaḅo Kinini Kumutuku
 on-table is book big of-redness
 'On the table there is a big red book.'
- b. ?kumeeza hari iğitaḅo Kumutuku Kinini
 on-table is book of-redness big
- (20) a. kumeeza hari iğitaḅo Kumutuku ğiškaaže
 on-table is book of-redness used
 ?'On the table there is a red used book.'
- b. ?kumeeza hari iğitaḅo ğiškaaže Kumutuku
 on-table is book used of-redness

The heirarchy suggested by these data is:

(21) size + color + acquired or non-inherent physical condition

The force of this hierarchy is even more striking when three adjectives modify the noun in the same construction:

- (22) a. kumeeza hari iḡitaḡo kinini kumutuku ḡišaaže
on-table is book big of-redness used
'On the table there is a big red used book.'
- b. *kumeeza hari iḡitaḡo kumutuku ḡišaaže kinini
- c. *kumeeza hari iḡitaḡo ḡišaaže kumutuku kinini
- (23) a. kumeeza hari iḡitaḡo kumutuku ḡišaaže kiremereye
on-table is book of-redness used heavy
'On the table there is a red used heavy book.'
- b. *kumeeza hari iḡitaḡo kiremereye kumutuku ḡišaaže
- c. *kumeeza hari iḡitaḡo kiremereye ḡišaaže kumutuku
- (24) a. kumeeza hari iḡitaḡo kumutuku ḡišaaže ḡiheenda
on-table is book of-redness used expensive
'On the table there is a red used expensive book.'
- b. *kumeeza hari iḡitaḡo ḡiheenda kumutuku ḡišaaže

Thus the hierarchy in (21) may be further extended to:

(25) size + color + acquired physical condition + unobservable property

While this hierarchy clearly depends on ill-defined concepts, such as 'observable', we would like, nevertheless, to suggest that there does exist a hierarchy based upon judgements concerning degree of generality. The properties of an object which are obvious upon casual visual inspection are classified by speakers as in some sense more general than unobservable properties (e.g., expensive) and are therefore likely to be ordered first. Also, when an acquired physical property (e.g., broken, torn) is to be used in the description along with an "originally" inherent property (e.g., big, red), the acquired property follows the originally inherent one. The acquired condition is considered less general. The less visually obvious properties or the acquired physical properties are included in the description only when the use of the more general modifiers has failed to establish a unique referent. The

speaker proceeds from the general to the specific in building the definite description. Since size does not seem to be in any way more general than color we suggest that perhaps the size + color ordering is determined by the form of the word. An adjective precedes a possessive-type modifier, and colors happen always to be of the possessive type.

Now let us briefly return to examples (13) and (15). We have suggested that the discourse condition under which the 'semantic' hierarchy of properties is overruled is when the entire group under discussion possesses the 'more specific' property, but only one individual possesses the 'more general' one. This is, in actuality, the same principle expressed by the semantic hierarchy, except that in certain contexts the property that is normally regarded as 'more specific' is considered the more general one. In these cases the normally-general property is actually the specific, distinguishing characteristic. The apparent violation of the hierarchy thus actually confirms the general principle, which may now be formulated as:

- (26) In the construction of definite descriptions, speakers will tend to proceed from the general to the specific. This order of increasing specificity requires that generally-known or observable characteristics of the referent are listed before characteristics requiring more esoteric knowledge of an individual or more careful inspection of an item.

4. Strategies in Ordering Adjectives, Locative Phrases, and Relative Clauses

In section 3 we disregarded the distinction between lexical adjectives and verb-derived modifiers which would be classified syntactically as relative clauses. In the data above the syntactic category remained irrelevant to the ordering constraint (except possibly for the size + color order). In this section we will discuss modification strategies which seem to rely upon syntactic information. We will look at the ordering of three types of modifiers: adjectives, locative phrases, and relative clauses. We will show that, basically, the same type of hierarchy governs the modifier ordering, although in places only the syntactic properties are relevant.

The first condition we notice is that adjectives and restrictive relative clauses modifying the same noun may not be conjoined. They may occur only in a 'stacked' configuration:

- (27) a. iKuma kinini kaateemye inyama Kiri kumeeza
 knife big that-past-cut meat is on-table
 'The big knife that cut the meat is on the table.'
 b. *iKuma kinini kaandi kaateemye inyama Kiri kumeeza
 knife big and that-past-cut meat is on-table

The same restriction holds with respect to adjectives and locative phrases:

- (28) a. umugaBo muremure uri hano n'umutxwaare
 man tall that-is here is-chief
 'The tall man who is here is the chief.'
 b. *umugaBo muremure kaandi uri hano n'umutxwaare

The grammatical function of the head noun in the relative clause makes no discernible difference. Thus:

- (29) a. umugaBo munini umugore yaaBoonye n'umutxwaare
 man big woman that-past-see is-chief
 'The big man that the woman saw is the chief.'
 b. *umugaBo munini kaandi umugore yaaBoonye n'umutxwaare
 (30) a. umugaBo munini umuhuungu yaahaaye iğitaBo n'umutxwaare
 man big boy that-past-give book is-chief
 'The big man to whom the boy gave the book is the chief.'
 b. *umugaBo munini kaandi umuhuungu yaahaaye iğitaBo n'umutxwaare

Adjectives, locative phrases, and relative clauses not only may not occur together as conjoined, they also may not occur in variant order. There are strict order conditions. Adjectives must precede relative clauses:

- (31) a. umugaBo muremure uriho uğeenda n'umutxware
 man tall who-is who-walk is-chief
 'The tall man who is walking away is the chief.'
 b. *umugaBo uriho uğeenda muremure n'umutxwaare

- (32) a. iKuma Kinini Kaateemye inyama Kiri kumeeza
 knife big that-past-cut meat is on-table
 'The big knife that cut the meat is on the table.'
 b. *iKuma Kyaateemye inyama Kinini Kiri kumeeza

This adjective + relative clause order is maintained regardless of the grammatical function of the head noun in the relative clause.

Thus:

- (33) a. umugaBo munini umuhuungu yaaBoonye n'umutxwaare
 man big boy that-past-see is-chief
 'The big man that the boy saw is the chief.'
 b. *umugaBo umuhuungu yaaBoonye munini n'umutxwaare

The non-conjoinability and strict order conditions may be ignored only when the relative clause characterizes a habitual/generic activity. In this case the adjective and the relative clause may be conjoined and there may be order variation:

- (34) a. umugaBo muremure uririimba n'umutxwaare
 man tall who-sings is-chief
 'The tall man who (always) sings is the chief.'
 b. umugaBo muremure kaandi uririimba n'umutxwaare
 man tall and who-sings is-chief
 'The man who is tall and who (always) sings is the chief.'
- (35) a. umugaBo uririimba muremure n'umutxwaare
 man who-sings tall is-chief
 'The man who (always) sings who is tall is the chief.'
 b. umugaBo uririimba kaandi muremure n'umutxware
 man who-sings and tall is-chief
 'The man who (always) sings and who is tall is the chief.'
- (36) a. umugaBo muremure uguriša imbuto n'umutxwaare
 man tall who-sells fruit is-chief
 'The tall man who (always) sells fruit is the chief.'
 b. umugaBo muremure kaandi uguriša imbuto n'umutxwaare
 man tall and who-sells fruit is-chief
 'The man who is tall and who (always) sells fruit is the chief.'
- (37) a. umugaBo uguriša imbuto muremure n'umutxwaare
 man who-sells fruit tall is-chief
 'The man who (always) sells fruit who is tall is the chief.'
 b. umugaBo uguriša imbuto kaandi muremure n'umutxwaare
 man who-sells fruit and tall is-chief
 'The man who (always) sells fruit and who is tall is the chief.'

In situations where an individual's activities can serve to identify him (such as, e.g., (34)-(35), the person is known as 'a singer' in a community) they are evidently considered as equal in generality to physical characteristics. This is illustrated by the conjoinability of the modifiers in the (b) examples of (34)-(37). Obviously they are not conjoined by virtue of identical syntactic structures, but rather, we claim, by equal descriptive "power". Item (35a), for instance, would be used in a situation where the habitual activity were judged by the speaker to be a more general modifying characteristic than even the height of the individual.

Since adjectives usually express inherent qualities, and relative clauses (excluding, for the moment, those with stative or generic verbs) usually express time-bound specific events, the adjective + relative clause order condition actually illustrates the general-to-specific description strategy. And evidently only elements of the same degree of generality may be conjoined (as two adjectives in the previous section, or two relative clauses, as we will see below). These facts might be explained by a purely syntactic condition which required the particular ordering and prohibited conjunction unless the two conjuncts were of the same form. In this way examples (34)-(37) would be exceptions. If we realize, however, that the apparent syntactic condition is actually a manifestation of the general-to-specific strategy, (34)-(37) provide a consistent argument in favor of the hypothesis.

Next it can be shown that locative phrase modifiers also participate in conditions on ordering. The preferable order is still with the adjective first, though the order locative + adjective is possible and slightly more acceptable than the order relative clause + adjective. Thus:

- (38) a. umugaŋo muremure uri hano n'umutxwaare
 man tall who-is here is-chief
 'The tall man who is here is the chief.'
- b.? umugaŋo uri hano muremure n'umutxwaare
 man who-is here tall is-chief

The less preferred order in (38b) may be considered acceptable in the proper context, namely, in this case, when many men are here but only one is tall. That is, the reverse order, locative + adjective, is possible when the locative expresses the more general information, in the discourse situation, than does the adjective. Locative phrases, therefore, also seem to participate in the generality hierarchy. They are normally less general than adjectives, and as can be seen from the ordering restrictions in the examples which follow ((39)-(40)) they are considered more general than relative clauses:

- (39) a. umugaḅo uri hano wakoze n'umutxwaare
 man who-is here that-past-work is-chief
 'The man who is here who worked is the chief.'
 b. *umugaḅo wakoze uri hano n'umutxwaare
- (40) a. umugaḅo uri muunzu umuhuṅgu yaahaaye iḡitaḅo n'umutxwaare
 man who-is in-house boy that-past-give book is-chief
 'The man who is here to whom the boy gave the book is the chief.'
 b. *umugaḅo umuhuṅgu wahaaye iḡitaḅo uri muunzu n'umutxwaare

Here again the restriction may be relaxed only under the proper contextual conditions.

- (41) umugaḅo waḅe kundeba eḅo uri hano n'umutxwaare
 man who-came to-me-see yesterday who-is here is-chief
 'The man who came to see me yesterday who is here is the chief.'

Sentence (41) would be acceptable only if many men came to see me yesterday, but only one is here now.

Adjectives, locatives, and relative clauses thus hierarchize in the following way:

- (42) Adjective + Locative + Relative Clause

We would like to suggest that this is not just an unexplained syntactic condition, but is, rather, a reflection of the hierarchy of generality and may be restated as:

- (43) permanent state + changeable state + transitory event

The validity of the formulation in (43) may be further demonstrated by the following data. A derived adjective may express a resulting state of an action/event. Adjectives of this type must follow 'inherent quality' adjectives, but must precede 'event-type' relative clauses in a definite description:

- (44) a. iKuma Kinini Kivunitse Kiri kumeeza
 knife big that-broke is on-table
 'The big knife that broke is on the table.'
 b. *iKuma Kivunitse Kinini Kiri kumeeza
- (45) a. iKuma Kivunitse Kaateemye Inyama Kiri kumeeza
 knife that-broke that-past-cut meat is on-table
 'The broken knife that cut the meat is on the table.'
 b. *iKuma Kaateemye Inyama Kivunitse Kiri kumeeza

The general-to-specific criterion is still crucial and the ordering hierarchy for (44)-(45) can be stated as:

- (46) permanent state + state resulting from an event + transitory event

We would like to contend that the same hierarchy of generality is involved in all cases.

5. Conjoinability and Ordering of Relative Clauses

We have suggested that:

- (a) Modifiers are hierarchized according to the generality of the information they provide about the element to be modified, and speakers proceed from the general to the specific in constructing a definite description.
- (b) Modifiers are conjoinable only if they express information of roughly the same degree of generality.

As indicated above, restrictive relative clauses contain, primarily, specific, time-bound information. They utilize events or actions in which the individual to be described was a participant in one capacity or another. Thus they are situated at the bottom of the generality scale. Ideally, we would like to be able to differentiate among the various types of relative clauses along lines compatible with our hierarchy of generality. Thus far, however, our study has been

inconclusive in this regard. It may be that, all other things being equal (see sections 5.1 and 5.2), when modifiers express information which is nearly identical in generality there is, in actuality, free variation in ordering. Or it may be the case that the distinctions requiring particular orders are so fine as to elude judgements based on introspection and intuition. If this second alternative is indeed the case, examination of language in use, ideally via experimental methods, would be the only way to determine order preference. The data considered in this section, therefore, does not constitute an extension of the generalizations presented above. The ordering conditions to be discussed below are based, instead, upon considerations which are largely pragmatic in nature.

5.1 Temporal order. Speakers tend to order relative clauses along the time axis from past to future. Thus:

- (47) a. umugaḅo wakoze uzaanaririimba eḅo yaaḅiiye
 man who-past-work who-fut-and-sing tomorrow left
 'The man who worked (and) will sing tomorrow left.'
- b. *umugaḅo uzaaririimba eḅo waa(na)koze yaaḅiiye
- (48) a. umugaḅo uriho ukora uzaanaririimba eḅo yaaḅiiye
 man who-is who-works who-fut-and-sing tomorrow left
 'The man who is working and who will sing tomorrow left.'
- b. *umugaḅo uzaaririimba eḅo uriho u(na) kora yaaḅiiye
- (49) a. umugaḅo wakoze uriho u(na)ririimba yaaḅiiye
 man who-past-work who-is who-(and)-sing left
 'The man who worked (and) who is singing left.'
- b. *umugaḅo uriho ururiimba waa(na)koze yaaḅiiye

Because relative clauses are of roughly the same degree of generality, we would expect that they may be conjoined. This is, in fact, the case:

- (50) a. umugore waḅoonye waganariḅe n'umuririimbḅi
 woman you-past-see you-past-talk is singer
 'The woman you saw whom you talked to is a singer.'
- b. umugore waḅoonye kaandi waganariḅe n'umuririimbḅi
 woman you-past-see and you-past-talk is-singer

As in English, the order of the clauses may not be reversed unless

the real-world normal order of events has been in some way distorted (e.g., if one talked to a woman by phone before seeing her). Under the usual conditions (50c) and (50d) would not be acceptable:

- (50) c. *umugore waganiriže waḃoonye n'umuririimbži
 d. *umugore waganiriže kaandi waḃoonye n'umririimbži

Apparently what is involved is a simple pragmatic consideration: you normally first see a person and then talk to them. The order of relative clauses reflects the real-world temporal sequence of events. Where the order reflects what is usually a real-world necessity, the clauses are obligatorily conjoined. 'Seeing' must take place before 'greeting':

- (51) a. umugaḃo naḃoonye kaandi naramukiže n'umutxwaare
 man I-past-see and I-past greet is-chief
 'The man I saw and greeted is the chief.'
 b. *umugaḃo naḃoonye naramukiže n'umutxwaare
 c. *umugaḃo naramukiže (kaandi) naḃoonye n'umutxwaare

Sentence (51b) would be acceptable where, for instance, two people are seen but only one is greeted. That is, **stacking** is acceptable where temporal order is not the main consideration. 'Leave' and 'return' are similarly constrained in that leaving must occur before returning (again, unless there are possible real-world extenuating circumstances):

- (52) a. umugaḃo waḡiye kaandi a-ka-garuka n'umutxwaare
 man who-past-leave and he-consec-return is-chief
 'The man who left and then returned is the chief.'
 b. *umugaḃo waḡiye waagarutse n'utxwaare
 man who-past-leave who-past-return is-chief
 c. *umugaḃo wagarutse (kaandi) akageenda n'umutxwaare
 man who-past-return (and) who-consec-leave is-chief

Whether the sequential considerations are built into the presuppositions of the lexical verb, as in the case of 'return', or merely represent the pragmatic likelihood of situations, as in 'see'-'greet'/'talk to', is at this point irrelevant. Generally only where events are pragmatically independent of one another is there freedom in ordering:

- (53) a. umugaβo naβoonye wakoze n'umutxwaare
 man I-past-see who-past-work is-chief
 'The man I saw who worked is the chief.'
 b. umugaβo wakoze naβoonye n'umutxwaare
 man who-past-work I-past-see is-chief
 'The man who worked whom I saw is the chief.'

If the events described in the two relative clauses are judged to have occurred simultaneously, the clauses are obligatorily conjoined:

- (54) a. umugaβo wakoze kaandi waririimbže yaağiye
 man who-past-work and who-past-sing past-leave
 'The man who worked and sang (at the same time) left.'
 b. *umugaβo wakoze waririimbže yaağiye

Sentence (54b) is of course grammatical with the interpretation that the two actions did not occur simultaneously.

5.2 Topicality. Two relative clauses may not be conjoined (but rather must be 'stacked') if in the first the head noun is subject while in the second it is object:

- (55) a. umugaβo wariye inyama umugore yaβoonye n'umutxwaare
 man who-past-eat meat woman who-past-see is-chief
 'The man who ate the meat whom the woman saw is the chief.'
 b. *umugaβo wariye inyama kaandi umugore yaβoonye n'umutxwaare

The passivization of the second clause, however, would yield a conjoinable result:

- (56) umugaβo wariye inyama (kaandi) waβoonwe n'umugore n'umutxwaare
 man who-past-eat meat and who-past-see-passive by-woman is-chief
 'The man who ate the meat and who was seen by the woman is the chief.'

This piece of data may be interpreted as a purely grammatical fact, i.e., that 'unlike' structures may not be conjoined. It may, however, be interpreted as follows. Object and subject obviously differ with respect to degree of topicality, with subject being the normal, unmarked sentential topic. Passivization is a way of raising, in a 'marked' way, an underlying object into topic position. The passivization of the second clause of (56) allows the head noun to function with the same degree of topicality, as subject, in both clauses. If 'degree of topicality' could be

shown to select 'degree of generality' (e.g., if 'more topical' = older presupposed information = more general), which seems plausible, this might be a further example of the generality hierarchy.⁴

A similar condition, again describable in terms of the grammatical relations, is exhibited in (57)-(58). If an inanimate noun is modified by two restrictive relative clauses, where it is the grammatical subject of one and the non-subject instrument of the other, the clause in which it functions as the subject must come first:

- (57) a. iKuma kaateemye inyama umugaḅo yakorešeže Kirirabura
knife that-past-cut meat man that-past use is black
'The knife that cut the meat that the man used is black.'
- b. *iKuma umugaḅo yaakoršeže kaateemye inyama Kirirabura
- (58) a. iKuma kaaguye haasi umugaḅo yakorešaga Kirirabura
knife that-past-fall to-ground man that-past-using is black
'The knife that fell to the ground that the man was using is black.'
- b. *iKuma kaaguye haasi umugaḅo yakoresaga kirirubura

The domain of this ordering condition seems rather restricted, and it cannot be shown with other paired grammatical relations, e.g., subject/non-subject accusative, subject/non-subject dative, etc. The fact that a stative verb is involved in the subject clause of (58) suggests that agentiveness is not the controlling factor. Possibly the fact that 'use' is a verb which requires an instrument is significant. Obviously more work needs to be done in this area.

6. Discussion

We have shown that certain conditions on the ordering of restrictive modifiers in Kinyarwanda reflect a principle that we would like to call 'the generality hierarchy'. When more than a single modifier is necessary to assure definite description, the order established by the generality

⁴Hyman and Hawkinson [1974] have discussed topicality as a matter of degree rather than a discrete either/or feature. They have shown a hierarchy of topicality with the subject as unmarked topic, and then benefactive + dative + accusative objects. Consideration of topicality as generality follows suggestions made by Givón [personal communication].

hierarchy must be obeyed. With regard to adjectives, the generality hierarchy prescribes the following orders for different types of adjectives:

- (59) originally-inherent property + acquired or temporary property
 observable characteristic + unobservable characteristic

The ordering determined by the generality hierarchy for adjectives, locative phrases, and relative clauses is actually an extension of that given for adjectives alone:

- (60) permanent state + $\left\{ \begin{array}{l} \text{changeable state} \\ \text{state resulting from an event} \end{array} \right\} + \text{event}$

Conditions governing the conjoinability of restrictive modifiers also reflects the generality hierarchy. If the hierarchy is considered a scale, then elements which occur in roughly the same part of the scale may not be conjoined. Elements which are at opposite ends of the scale may not be conjoined. Conjoined restrictive modifiers function much like stacked ones to narrow the domain of definite description. However, properties which do not differ sufficiently in 'generality' can neither hierarchize nor require strict ordering in conjunction.

It is possible that the 'topicality conditions' briefly discussed in section 5.2 might in the future be shown to reflect the generality hierarchy. Whether or not this is shown, we think that the Kinyarwanda data of sections 3 and 4 expand upon various observations made by Gruber [1967] about English. The observations about the two languages seem to point towards a possible language universal. It might be the case that the speakers of all languages construct definite descriptions in accordance with a 'rule of economy' that says "proceed toward specificity in modification only as far as is required to assure the establishment of a unique referent." It is possibly also the case that speakers of all languages order modifiers in such a way as to reflect their temporal sequence (as in section 5.1). This second possible generalization seems less interesting than the first, since it would seem to be conditioned totally by pragmatics. We readily concede

that much more research needs to be done to strengthen the suggestions made in this work, particularly since we would like to investigate a possible universal 'rule of economy'. We think that examination of data from other languages and also experimental study of linguistic behavior should prove suitable extensions of this study.

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