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Genitive Constructions, Noun Complement Structure and syntactic parameters in Somali

Introduction

Somali has an unusual patterning among Cushitic languages, which are more or less uniformly right-headed across categories: following Greenberg (1966), canonically OV languages are postpositional, the auxiliary follows the Verb, the genitive and the relative clause precede the head Noun. Nevertheless, Somali NPs are head initial, an asymmetry often noticed, if not explained, by typologists.

The syntax of the genitive constructions provides an interesting domain for investigation of the Noun complement structure in Somali. Our syntactic analysis derives all the genitive constructions from the basic structure of the 'construct state', and attributes the typological inconsistency found in Somali to the functional properties of the determiner. This lends support to the hypothesis that the same basic properties are involved in syntactic representations across languages, and that the setting of parameters in a particular language is dependent on lexical (or morphophonological) specifications.

In line with much recent work on comparative syntax, this analysis makes possible comparative generalizations across Cushitic languages, and can therefore be viewed as an attempt to show how recent proposals in the 'principles and parameters' approach of generative grammar (Chomsky (1986a)) provide real explanations for these phenomena.

1. On the structure of genitives.

1.1. 'Construct State'.

The first configuration is reminiscent of the 'construct state' of the Semitic languages (Gueez, Tigrigna, Modern Hebrew). In Somali, it has the following characteristics:

-It is a simple <u>juxtaposition</u> of two Nouns, where the genitive follows the head it modifies, like all other nominal modifiers (determiners, relative clauses). The dependency between the two terms is expressed by strict adjacency (a purely structural relation), without overt case marking or preposition.¹

-Another interesting property of the Somali 'construct state' is that any of the two terms may be determined: determiners are morphological affixes which can appear attached to any of the two constituents. This contrasts with data in Modern Hebrew, where the head Noun can only be rendered definite by attaching the definite article to the complement: beit ha-mora, '(the) house of the/a teacher' (cf. Borer (1984)).

-The structure is right-branching, as shows (1):

(1) a. waanó waayeel NP'' advice(F) wise(man)(M) piece of advice from a wise (man) N' b. hormúud-ka kulliyád-da Dean-detM Faculty-detF N+det NP'' the Dean of the Faculty N' xafíis-ka hormúud-ka kulliyád-da c. office-detM Dean-detM Faculty-detF the office of the Dean of the Faculty

It follows from these structural properties that the head cannot be modified directly. If there is a modifier to the head such as wanaagsán

in (2a), the genitival relation is maintained by the use of a coordinating particle (ee). This particle may also create a structural slot for expressing a second 'internal argument' of the head, such as ciidanka, the complement of the derived nominal burburinta in (2c). Thus, a chain of 'construct states' can always be expanded, provided that the structure remains right-branching:

- (2) a. khudbád-da wanaagsán <u>ee</u> hormúud-ka kulliyád-da áfaf-ka speech-detF fine and Dean-detM Faculty-detF languages-detM the fine speech of the Dean of the Faculty of Languages
 - shír-ka wasiirrá-da arrimá-ha dibád-da ee conference-detM ministers-detF affairs-detM foreign-detF and úrur-ka midnimá-da Afrika
 Organization-detM Union-detF Afrika
 the OAU Conference of Ministers of Foreign Affairs
 - c. burburín-ta magaalá-da <u>ee</u> ciídan-ka destruction-detF city-detF and rebels-detM the destruction of the city by the rebels

1.2. Prehead genitives

In the second type of constructions, the genitive is expressed prenominally, and a possessive determiner (combining the definite article and a possessive pronoun) is suffixed to the head Noun². The possessive pronoun must be interpreted as referentially nondistinct from the prenominal NP: hence in (3a), the possessive marker (-iis) is third person masculine singular, matching the person, gender and number of the external Noun.

- (3) a. waayéeli waanádiisi
 wise (man) advice-detF+Poss3MS
 a wise man's piece of advice
 - b. kulliyádda hormúudkeeda Faculty-detF Dean-detM+Poss3FS The Faculty's Dean
 - c. hormúudka kulliyádda xafíiskiisa

 Dean-detM Faculty-detF office-detM+Poss3MS

 The Dean of the Faculty's office

In both configurations, the assignment of structural case by a matrix Verb is realized in two parts: abstract nominative Case on the head Noun, by agreement on the verb, morphological case at the end of the NP (that is, on its rightmost constituent):

- (4) a. aqoónta afeed ee nínkani waa waanagsántahay
 Knowledge-detF language and man-detM [+nom]F good-is(FS)
 The linguistic knowledge of this man is good
 - b. Cáli aqoóntiisa afeedi waa waanagsántahay
 Ali knowledge-detF+Poss3MS language[+nom]F good-is(FS)
 Ali's linguistic knowledge is good

2. The internal structure of the NP.

These well-known data raise two questions that are given no precise answer, to my knowledge, in the precedent analyses (Gebert (1981), Serzisko (1984)): what is the syntactic status of the possessive marker? What is the nature of the prehead position? In other words, how can we formally account for the fact that the two constructions have clearly something in common? In a more recent account (Lecarme (1989)), I have attempted to analyze the Noun-complement relations in terms of Case theory, a module which plays a central role in the setting of parameters in the current theory of generative grammar (Chomsky 1981, 1986). Before considering briefly the Case assigning properties of Nouns, which

raise problems that are largely beyond the scope of this article, I will only sum up the most salient aspects of my analysis in theory neutral terms, insofar as this is possible.

2.1. Prehead position=Specifier position.

In Somali, the realization of the externalized genitive NP is narrowly constrained by strict structural conditions:

-the NP must both precede and <u>c-command</u>³ the possessive marker, and the two elements are necessarily coindexed. As for the c-commanding properties of the prehead genitives, it means roughly that the NP 'is higher in the tree' — inside of a well-defined syntactic domain — and cannot be extraposed, even by means of the coordinating particle ee. Only a modifier (or predicative NP) may thus follow the complex head+possessive determiner:

- (5) a. Máryan habsócodkeeda wanaagsán Maryan(F) walk-detM+Poss3F fine Maryan's fine carriage
 - b. *habsócod-keedi-a **Máryan**i ee **Máryan**i

-As for the coindexing or binding properties of the possessive affixes, compare (6-7): in (6a, 7a), the pronoun is free in interpretation since there are two referential NPs. It is bound in the genitive constructions (6b, 7b), where the two elements share the same maximal projection.

- (6) a. NP[Cáli] iyo NP[saaxibáddiisu]

 Ali and friends-his[+nom]

 Alii and hisi,j friends
 - b. NP[Cálii [saaxibáddiisiu]]

 Ali friends-his[+nom]

 Ali's friends

- (7) a. NP[nínkii]i NP[waláalkiís]i,j buu arkáy
 man-the brother-his F-he saw
 the mani saw hisi,j brother
 - wúxuui yimid NP[[nínkai [waláalkiisiii]]
 F-he came man-the brother-his
 the man's brother came

The only c-commanding position available within NP is the position Specifier of NP, a position where both determiners and prehead genitives are expressed in English. We thus conclude that Somali NPs have the same functional structure as (8), consisting of a head, a specifier, and complements⁴.

2.2. Prehead genitives are anaphoric constructions.

Superficially, the Somali genitives have the appearance of the two constructions we find in English. A closer look, however, reveals important asymmetries.

- -when there is a prehead genitive in English, the head cannot be determined: determiners are in Specifier position and must therefore be null when a prehead genitive appears.
- -the genitive and the prehead position have the same distribution in English. The standard movement analysis accounts for this fact in a particularly elegant way, since there is always a basic corresponding position. In Somali, this is not the case, and a number of 'results of

extraction' would rely on the existence of totally ungrammatical basic configurations:

- (9) a. jáakedku kúrsigaaga hoóstiisa buu kú jiraa jacket-detM[nom] seat-detM+Poss2S below-detF+Poss3MS Foc-he in is your lifejacket is under your seat [*hoósta kúrsiga]
 - b. taaríkhda af-soomaáliga náfteeda [*náfta taaríkhda] history-detF language-Som.detM soul-detF+Poss3FS the very history of the Somali language
 - c. Máryan áwgeed [*áwga Máryan]

 Maryan (honorific title)-detM+Poss3FS

 because of Maryan

Problems for a standard movement analysis arise in consideration of additional data where the so-called 'possessor' can appear arbitrarily far on the surface from the supposed extraction site. Examples (10) show the long-distance dependencies permitted in Somali, which would constitute a violation of the locality constraints imposed on movement, formuled in the Subjacency Condition (Chomsky (1977)) which prevents a phrase from being moved across more than one category of a certain type (Focus markers and complementizers would count as such bounding nodes in Somali):

- (10) a. wáxaad akhrisáy búuggan tarjamádiisa F-you read book-this translation-its you read the translation of this book
 - búuggée báad akhrisáy tarjamádiisa?
 book-det+Q F-you read translation-its
 which book did you read the translation?
 - c. waa búugga IP[aan is weydíinayo cP[haddíi aad akhrisáy tarjamádiisa]]

 F book-the I refl. ask if-you(2Sg) read translation-its
 it is the book the translation of which I wonder if you read
 - d. búuggan cr[ayáadan ogáyn cr[ín tarjamádiisa ay jirtó]]
 book-this F-you-neg know that translation-its 2FS is
 I don't know if there is a translation of this book

On the basis of these exemples - and other facts not mentioned here - we may conclude that possessive constructions are not instances of movement and that there is no 'possessor raising' at all in Somali. This suggests that there is another mechanism involved in these data: my own hypothesis is that prehead genitives are anaphoric constructions and that the relationship between the two genitive configurations results from an agreement process.

Possessive suffixes have different binding properties, illustrated in (11). Depending on the syntactic context in which they occur, they act as pronouns, anaphors, or even agreement markers. Associated with the definite determiners, they show all the semantic characteristics of regular pronouns (toódii, 'the one of them'). Possessive suffixes may be anaphoric in a traditional sense, that is, are referentially dependent on an antecedent as instances of pragmatic interpretation or discourse binding (such as the lexical chain -ay ...caasinimádooda in 11b)). They can be also anaphoric in a technical, more restrictive sense, as defined in the Binding theory of Chomsky (1981) (in 11b, the chain caasin-

nimádooda ...eed): in this sense, they need to be bound in a local domain.

- (11) a. toódii lá guursaday ayáan arkay
 DetF+Poss3P one married Foc-I saw
 I saw the one of them who is married
 - b. wáxay heleen [NP caasinnimádooda [N abáalkeedií]]
 F-they received desobedience-detF+Poss3P reward-detM+Poss2FS
 they received the reward of their desobedience

NP Binding principles (adapted from /\ Chomsky 1986a): (Spec) \ A: an anaphor is antecedent-bound in its NP_i governing category /\ B: a pronominal is antecedent-free in its governing category C: a lexical element is free An element A binds an element B iff: Ndet+AGRi Ø A c-commands B and A and B are coindexed.

Recall that the possessive element is understood as necessarily bound to the prehead genitive in the Specifier position of NP, its governing category. This is precisely the environment where pronouns are free in interpretation, under the Binding principles. This determines the status of the possessive pronouns as anaphoric. The pair (NP_i, AGR_i) containing two nominal elements related by anaphoric binding forms a chain of positions interpreted as a single argument at Logical Form. It is this agreement process which permits the transmission of the thematic role (any of the thematic roles) of the complement to the externalized genitive NP. This explains why the Specifier position can be filled only if an anaphoric possessive is present in the structure. This also explains why only argumental NPs may appear in prehead position: determiners are morphologically suffixes, adjuncts (such as adverbial NPs: yesterday's

weather) are excluded from the Specifier position, quantifiers and numerals are grammaticalized as heads in Somali⁵.

To summarize, the coindexing relationships in prehead genitive constructions are governed by the core principles of anaphora: locality and c-command (12a,b,c). Provided that these binding principles are respected, the possessive morpheme do not block the right-branching process of the 'construct state', and when a nominal head takes more than one complement, another argument to the head can appear in object position (or even can be incorporated into the head)(12d).

- (12) a. Cáli ákhriskiisa (ákhriska Cáli)
 Ali reading-detM+Poss3MS
 Ali's reading
 - b. Quráanka ákhriskiisa (ákhriska Quráanka) Koran-detM reading-detM+Poss3MS The reading of the Koran
 - c. *akhriskiisia Calii --- <u>ee</u> Calii
 - d. Cáli ákhriskiisa ee Quráanka
 Ali reading-detM+Poss3MS and Koran-detM
 Ali's reading of the Koran (=Cáli Quraanákhriskiisa)

2.3. Noun and Verb complement systems. Derived nominals

Traditional as well as contemporary linguistics (Benveniste (1966), Chomsky (1986)) widely assume the hypothesis that Nouns and Verbs have the same complement structure. There is yet a long-noticed asymmetry across languages in how arguments to Verbs and to Nouns are syntactically realized. In relation to the issue of head-complement asymmetries in Somali, it is desirable to clarify the nature of the association between a Noun and its (genitive) complement. The status of nominal complements as arguments to their heads is far from being clear: derived nominals such as destruction are predicates in the

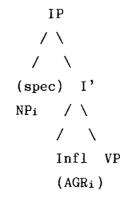
sense that they take arguments to which they assign thematic (or semantic) roles (in the same manner as related verbs) but this is not a property of all Nouns, since the great majority of them do not take arguments that could be specified in their lexical structure. In the same manner, the status of nominal heads as lexical governors -- the grammaticalization of the forementioned thematic (theta-) relation -- is not obvious: Nouns cannot 'govern' their internal complement in the sense in which Verbs can. In the current 'principles and parameters' approach of generative grammar (Chomsky (1981, 1986)), the asymmetry in the Noun an Verb complement systems is attributed to how these categories assign Case: Verbs assign structural (accusative) Case in terms of 'surface' (S-)structure position, independently of theta-marking, while Nouns can only assign inherent (genitive) Case at 'deep' (D-)structure in association with theta-marking, since Nouns do not assign Case directly. Both structural and inherent (abstract) Cases are realized in the manner specified by the particular language (morphological genitive case in Latin or Greek, vacuous preposition of in English, agreement or adjacency requirement in other languages): the notion of abstract Case captures the equivalence of these systems, which constitutes a very important source of parametric variation.

According to the Case theory just sketched, I am assuming that the indexing between the NP in Specifier position and the Possessive marker in Somali is of the same nature as the indexing between the subject and AGR(eement) in English:

a. genitive constructions

NP / \ / \ (spec) N' NPi / \ / \ N+det+AGRi NP

b. subject/verb agreement



In this view, agreement in Somali genitives performs the same function which possessive morphology ('s or of-insertion) performs for English: to express an abstract Case relationship (cf. Marantz (1984), Baker (1988)).

The derived nominals in the following examples briefly illustrate the long-noticed fundamental similarities and differences in the Noun and Verb complement systems. In Somali, thematic roles are not linked to a particular position within a NP. Either argument can be expressed in the prehead position: the agent argument in (13b) (ciídanka), the patient argument in (14b) (lahaystayáasha). Significantly, the agent Khomeyni in (14c) would be interpreted as the patient argument if expressed in the same position as ciídanka in (13b).

- (13) a. burburínta magaaláda ee ciídanka
 destruction-detF city-detF and rebels(coll.)-detM
 ------ ciídaanka ee magaaláda
 rebels-detM and city-detF
 the destruction of the city by the rebels
 - b. ciídanka burburíntiisa ee magaaláda rebels-detM destruction-detF+3MS and city-detF
 - c. * magaaláda burburínteeda ee ciídanka city-detF destruction-detF+3FS and rebels-detM
- (14) a. xoréynta lahaystayáasha maraykanka (ah) ee Khoméyni liberation-detF hostages-detM American-detM (being) and Khomeyni the liberation of the American hostages by Khomeyni
 - b. lahaystayáasha maráykanka xoréyntooda ee Khoméyni hostages-detM American liberation-detF+3MP and Khomeyni
 - c. * Khoméyni xoréyntiisa ee lahaystayáasha Khomeyni liberation-detF+3MS and hostages-detM

It is clear that the distinction internal/external argument relevant for predicates is not relevant for Nouns: the NP in subject position being necessarily construed with a pronominal element in object position, there is no subject position in the sense that the initial configuration is not modified: all genitival constructions are expressed by extension of the 'construct state':

-on the right, by means of modifiers and/or coordination -on the left, by means of Specifier-head agreement.

2.4. Functional Properties of nominal heads

Going back to our previous comments, Somali has two means of expressing the dependency of an internal argument of a Noun: in other words, abstract genitive Case can be expressed either by agreement (prehead genitives) or by strict adjacency ('construct state'). In this last section I raise questions about the nature of this adjacency requirement. Specifically, I suggest that the syntactic behavior of Somali genitives, as well as the word order facts, can simply be accounted for in terms of a difference in the position of the determiner. Syntactically, determiners are not specifiers in Somali, but morphological affixes, which represent only one of the features of the nominal constituent. As in other Cushitic languages, this suffixed determiner plays a fundamental role in the formation of genitive constructions as well as relative clauses, and acts as a complementizer. More specifically, I assume that the complement is not able to inherit genitive assignment properties from the complex Noun+determiner, and is only able to inherit functional assignment from the suffixed determiner.

Confirmation for this analysis comes from cliticization processes: Since VPs are head-final in Somali, object pronouns are *proclitics* on the Verb. In contrast, the 'weak' subject pronouns, or agreement elements which transmit the nominative Case to full NPs, are *enclitics*⁶: they attach to nonlexical (= functional) heads, Focus markers or Complementizers (Lecarme 1987). Examples (15) illustrate the behavior

of clitic pronouns with respect to lexical heads (verbs or postpositions) and functional heads respectively:

- (15) a. (adíga) ínaad tagtó baan kuú diiday
 (me) that-you go(subj) Foc-I you-from prevented
 I prevented you from going
 - b. wuu igu kaá/kiín arkay (magaaláda)
 Foc-he me-in with you(sg)/you(pl) saw (town-detF)
 He saw me with you(sg/pl) (in the town)

Significantly, when a second 'internal argument' for a Verb is needed in those constructions, Somali uses the possessive pronominal forms. This confirms our intuition that the possessive endings may represent an oblique (pronominal) agreement⁷.

In genitive constructions, the possessive affix is an enclitic, because it cliticizes, not onto the head Noun, but onto the nonlexical element contained within the head Noun — the determiner. Functional assignment is directional in a language: therefore, Nouns are head-initial in Somali because all functional heads are initial in this language. In this view, the strict adjacency requirement of the 'construct state' is not a form of Case assignment (or government), but of functional assignment, a structural requirement of sisterhood the Noun inherits from the nonlexical category it contains.

3. Conclusions: syntactic parameters in Cushitic.

Compared with the Romance or Semitic languages families, Cushitic represents a group of related languages which differ considerably on the surface, both lexically and syntactically. Close inspection of these languages shows a correlation between the position of the determiner and the (a)symmetry in Noun and Verb complementation. Several Cushitic languages such as Rendille, Boni, Oromo, exhibit a 'Somali' behavior with respect to the head parameter. Significantly, we observe in these languages the same specific set of properties that allow a rather simple and elegant explanation of the Somali phenomena:

functional categories (such as complementizers) occur clause-initially, determiners are suffixed to Nouns.

Given this approach, we expect that in a language typologically similar to Somali with regard to the morphological properties of the determiner⁸, but in which the relevant morphemes are prefixes rather than suffixes, complementizers would occur clause-finally. This is exactly the situation found in Afar, where complementizers such as -im (corresponding to Somali in) occur clause-finally as a suffix of the sentence. Sidamo is another example of a uniformly right-headed language, if we assume, following Terfera (1987), that the suffixed morphemes referred to as postpositions by Moreno (1940) actually function as complementizers.

Somali, Oromo, Rendille, Boni (...): Head-initial functional categories/Head-final VP.

(Oromo (Harar): adapted from Owens (1985):

N(det)

intal-tíi '(the) girl [nom]'
namicc-íi '(the) man [nom]'

Genitives: NP[N'[N NP]]

Makiináa jaalá xiyyá
car friend my
My friend's car

Relative clauses: NP IP[(COMP)...]

namicc-ii (xan) d'ufe
man[nom] rel.M came
the man who came

Complement clauses: IP[COMP ...] V

akka-n d'ufé-n beexa that-I came know I know that I came Afar, Sidamo (...): both lexical and functional categories are head-final Afar (adapted from Bliese (1985), Morin (1986):

(det)N

Ø-núm '(the) man'

a-barrá 'this woman'

Genitives: NP[NP N]

yí kataysi-h gile

my friend's knife

Relative clauses: IP[...] NP

anú ublé awk-í

I saw boy [+nom]

the boy whom I saw

Complement clauses: IP[... COMP] V

yo-h warissá-m ko-k fada

me-to you-inform-COMP you-of want

I want you to inform me

In conclusion, although certain details in this typology are still stipulated, the general pattern of variation is captured in an interesting way by the proposed analysis. Summarizing the possible correlations in Cushitic, there are languages in which both lexical and functional categories are right-headed (the Afar/Sidamo pattern), and languages presenting a mixed system (Somali, Oromo). Thus, despite superficially unrelated differences, Cushitic languages appear quite homogeneous syntactically. The position of functional categories is responsible for at least some aspects of surface word order, and no parameter is in fact involved, since the position of functional categories depends on lexical or morphophonological specifications. Interestingly, no Cushitic language shows up the precise inverse of the Afar/Sidamo pattern, which would result in an uniformly leftheaded language (such as Geez). This must be because canonical government involves a true parameter setting the fundamental direction in which a Verb governs its object (which is right to left in OV languages, left to right in VO languages), which accounts for the primary difference between the grammar of Semitic and Cushitic languages.

Notes

The data presented here reflect the standard use of the language, and conform to the national orthography. Tone specifications have been added, since they are crucially involved in grammatical processes. I am indebted to colleagues at the National University of Somalia, and in particular to Mohamed Moallin Hassan for insightful discussion.

- 1. In examples such as (1a), the loss of the lexical tone of the second term may not be considered some kind of 'genitive Case marking'. Rather, it corresponds to a tendency to lexicalize construct-state combinations, where the (non branching) NP actually behaves as a modifier of the head.
- 2. The morphological material which follows the possessive cannot be 'another determiner' -- this would be an unexpected combination both morphologically and syntactically. Rather, the consonant reduplicating the one of the determiner should be interpreted as a support for a case ending when the possessive pronominal form ends in a vowel (compare -k-ay-ga/-t-ay-da 'my',-k-aa-ga/-t-aa-da 'your', -k-aya-ga/-t-aya-da 'our (excl)', and -k-iis-a/-t-iis-a 'his', -k-eed-a/-t-eed-a 'her', -k-een-a/-t-een-a 'our (incl)' -k-iin-a/-t-iin-a 'your (pl), -k-ood-a/-t-ood-a 'their', contrastively.
- 3. An element A c-commands and element B iff neither A nor B dominates the other and the first branching node dominating A dominates B (adapted from Chomsky, 1986a).
- 4. This is in conformity with the principles of X-bar theory (first introduced in Chomsky (1970)), which attributes to the dependency between a head and its complement(s) a precise structural form. The number of bars (or primes) represents the level of hierarchical structure. The head together with its (possibly null) complements are dominated by a lexical projection (N'). All lexical and grammatical

formatives (N,V...) must head a maximal projection (NP, VP...) dominating the head, its complements and an adjunct (or Specifier) position.

- 5. This can be seen from examples such as kulli ardaydii/ ardaydii kulligood (way yimaadeen), 'all the student came'. Quantifiers may also be expressed as modifiers in Somali.
- 6. The impersonal pronoun la, which is proclitic on the Verb, is a predictable exception, since by definition it is never connected with a Case marked subject position.
- 7. cf. B.W. Andrzejewski, Xikmad Soomaali p. 125: 'Suldaankii baa noo soo kaa/kiin diray. 'The Sultan has sent us for you (sg/pl)'... In a sentence in which an Object Pronoun has already once occurred, kaa is used instead of ku and kiin instead of idin; kaa and kiin are identical in shape with the corresponding form of the Possessive (without the Article)'.
- 8. This is a crucial point to the analysis. I take this property be a lexical stipulation available to other Cushitic languages in the unmarked case, but there are languages (for example Beja, in which determiners presumably function as in Arabic) which could be apparent counterexamples to the proposed generalization.

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