

ON THE JUSTIFICATION FOR LANGUAGE-SPECIFIC
SUB-GRAMMATICAL RELATIONS*

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This paper examines the syntactic behavior of a semantically specifiable set of NP's, the locative NP's, in OluTsootso, a Bantu language. We attempt to determine their grammatical relation in sentences, and find that the traditional and generative analysis of these elements as prepositional-phrase non-terms is inadequate. We claim that these locatives constitute a sub-relation of the grammatical relation of direct object. We do this by demonstrating that the set of locatives in question (which we call "locative objects") can be sharply distinguished from prepositional phrase locatives on the basis of behavioral and coding properties. We then show that locative objects and direct objects are the only elements which undergo certain relation-changing processes, trigger similar verbal cliticization processes in pronominalization, and that as targets of relativization and topicalization, have similar but unique morphosyntactic outputs. We show that indirect objects are placed lower on the Accessibility Hierarchy for grammatical relation-changing rules than locative objects, which results in needlessly violating an otherwise universal constraint on subjectivization rules, given the (incorrect) assumption that locative objects are prepositional phrases. We then show that although there is evidence that locative objects and direct objects should be classified together, we find further evidence which suggests that there is a broader grammatical relation of direct object which encompasses the sub-relations of (regular) direct objects and locative objects.

1. Introduction

This paper examines the syntactic behavior of a semantically and syntactically specifiable set of NP's in OluTsootso, a dialect of Luyia spoken

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in western Kenya, in an attempt to determine the grammatical relation such NP's play in sentences of the language. More specifically, this semantically and syntactically specifiable set of NP's consists of locative NP's taking as prefix one of three locative markers *xu-*, *mu-*, and *ha-*, meaning 'on', 'in', and 'near' respectively. The analyses of such locatives available to date in the literature, be they traditional or transformational in approach, classify them as prepositional phrases, not bearing any grammatical relation to the verb in the sentence. It is shown that such analyses are inadequate, and that these locatives constitute a semantically and syntactically distinct subrelation of the grammatical relation direct object.

Some information about OluTsootso morphology is useful at the beginning of the paper to help clarify the ensuing data. OluTsootso has typical Bantu morphological characteristics including noun classes which govern agreement on verbs for subjects and direct objects and on other grammatical elements such as relative pronouns, demonstratives and possessives. The verbal morphology consists of subject and object agreement prefixes as well as derivational verbal suffixes, among them the "applied" suffix *-il/-el* triggered in general by a benefactive, instrumental, or directional NP in the sentence, the passive suffix *-u/-ibw*, and the locative suffix *-xwo/-mwo/-ho*, each agreeing with one of the three locative markers mentioned in the first paragraph. The distribution of this locative suffix is of immediate relevance to this study, and will be taken up in detail later on in the paper.

2. NP Locatives and Prepositional Locatives

The set of locatives investigated in this study, namely those which take one of the three locative markers *xu-*, *mu-*, and *ha-*, are to be distinguished from the non-term, prepositional phrase type locatives whose prepositions constitute separate words. Contrast, for example, the locative in (1), carrying the prefix *xu-*, with the locative prepositional phrases in (2) with the sequence of prepositions *inyuma ya* or *imbeli ya*, consisting of two separate words each:

- (1) *jon a -tsi -a xu -mu -saala*
 John subject -go -tense(T) locative class -tree
 marker(SM) marker(LM) marker(CM)3
- 'John went on the tree'

- (2) jon a -tsi -a {inyuma } ya omu -saala
 John SM -go -T {imbeli } of CM3 -tree
 'John went {behind } the tree'
 {in front of }

2.1. Agreement processes. Evidence (more substantial than that provided by the orthographic conventions of the language) for the non-prepositional status of the locative markers *xu-*, *mu-*, and *ha-* comes from their not being subjected to a general constraint in the language against prepositional stranding. This constraint is illustrated by the Relativization strategies in the language. Relative clauses in OluTsootso appear after the head NP, beginning with a relative pronoun generally agreeing in class with the head NP and in case marking with the target of Relativization. In addition to the relative pronoun, a pronominal copy of the target NP obligatorily appears after the preposition in a relative clause formed on the object of a locative preposition, whereas there is no such copy in a relative clause formed on a NP that is clearly not preceded by a preposition and which cannot be analyzed as an object of one. Example (3) constitutes an example of a relative clause formed on a prepositional phrase type locative:

- (3) in -zu e -yi -a jon a -tsi -a inyuma ya yiiyo
 CM9 -house relative -CM9 -RM John SM -go -T behind of class
 clause (nonsubject) (C)9
 marker(RM) demonstrative(D)
 'the tree which John goes behind ...'

Note that without the demonstrative copy *yiiyo* following the prepositions *inyuma ya* the relative clause would be ungrammatical. Relativization on NP's that are not objects of prepositions, on the other hand, does not require this additional pronominal copy of the target of Relativization in the relative clause. Examples (4) and (5) illustrate relative clauses formed on subjects and direct objects respectively:

- (4) aβa-saatsa a -βa -xol -a emi -limo ...
 CM2-man RM -C2 SM -do -T CM4 -work
 'the men who do work ...'

- (5) aβa -saatsa a -βa -a en -dol -a ...
 CM2 -man RM -C2 objec- -RM I -see -T
 marker(OM) (object)
 'the men whom I see ...'

The non-prepositional phrase type locatives with the markers xu- , mu- , and ha- behave like regular non-prepositional phrase NP's in their choice of a Relativization strategy. Relativization of such locatives require no additional pronominal copy in the relative clause. The explanation is that these locatives do not include any prepositions so that their Relativization does not involve preposition stranding, thus requiring no additional pronominal copy in the relative clause. Relative clauses formed on non-prepositional phrase NP locatives are illustrated in (6) and (7).

- (6) mu -shi -iro o -mw -a jon a -leer -a eshi -taβo ...
 iM -CM7 -market RM -LM -RM John SM -bring -T CM7 -book
 'in the market in-where John brings the books ...'

- (7) xuu -n -zu o -xw -a jon a -tsi -a ...
 LM -CM9 -house RM -LM -RM John SM -go -T
 'on the house on-where John goes ...'

We have shown that syntactic evidence strongly corroborates the morphological evidence indicating that NP locatives (unlike the other prepositional phrase type locatives) are not prepositional phrases. Exactly what the grammatical relation of these NP locatives is will be discussed later on in the paper.

Locative NP's can be shown to be crucially different from prepositional phrase locatives in other respects as well. The nouns of the prepositional phrase locatives trigger class agreement on demonstrative pronominal forms, whereas the NP locatives govern locative marker agreement. Contrast, for example, the demonstrative constructions (8) and (9), which are formed on a prepositional phrase locative and a NP locative respectively:

- (8) inyuma ya omu -saala yukwo ...
 behind of CM3 -tree demonstrative(D)C3
 'behind that tree there ...'
- (9) xu -mu -saala yu -xwo ...
 on -CM3 -tree D -LM
 'on that tree on-there ...'

In (8) the demonstrative *yukwo* agrees with *omu-saala* 'tree' in noun class, while in (9) the demonstrative *yuxwo* agrees with the locative class 17 marker *xu-*. Similar agreement differences hold for relative pronouns formed on prepositional phrase locatives and NP locatives. The relative pronoun *e-yi-a* in (3), for example, being formed on a prepositional phrase locative, agrees in class with the noun *in-zu* 'house', while the relative pronouns *o-mw-a* in (6) and *o-xw-a* in (7), being formed on NP locatives, agree with the locative classes 17 and 18 whose markers are *mu-* and *xu-* respectively.

It is interesting to note, however, that this difference in coding procedure triggered by the two types of locatives in demonstratives and relative pronouns does not extend to possessives. Possessive pronominal forms for both types of locatives carry class agreement, as examples (10) and (11) indicate.

- (10) *inyuma ya tsi -siimba tsi -anje ...*
 behind of CM10 -lion CM10 -my
 'behind my lions ...'
- (11) *xu -tsi -siimba tsi -anje /*xw -anje ...*
 on -CM10 -lion CM10 -my on -my
 'on my lions ...'

Returning to the differences between NP locatives and prepositional phrase locatives, another such difference concerns verbal agreement. NP locatives, when in subject position, govern subject agreement, while prepositional phrase locatives never do, (indicating perhaps, that the latter type cannot be promoted to subject position by any syntactic process(es) in the language):

- (12) *xuu -n -zu xu -bal -a*
 LM -CM9 -house locative -be warm -T
 (L) SM
 'it was warm on the house'
- (13) **inyuma ya inzu yi -bal -a*
 behind of CM9-house CM0 -be warm -T
 ('it was warm behind the house')

Though the locatives in both sentences appear in subject position, the verb *xu-bal-a* in (12) agrees with the locative marker *xuu-*, whereas (13) is

ungrammatical even though the verb *yi-bal-a* agrees with the prepositions *inyuma ya* and their object *in-zu*, both being of class 9.¹

2.2. Syntactic processes. Having established that NP locatives, marked by the prefixes *xu-*, *mu-*, and *ha-*, are distinct from prepositional phrase locatives with respect to the coding properties they trigger in relative pronouns, demonstratives, and on verbs, and with respect to the relative clause formation strategies they employ, we go on to show that their behavior with respect to accessibility to syntactic processes such as Passivization, Tough Movement, Clitic Pronominalization, and Topicalization is also different: locative NP's are accessible to all these processes, while prepositional phrase locatives are not.

Passivization in OluTsootso generally applies to structures such as (14) to produce structures such as (15), thus promoting a direct object to subject status and demoting the underlying subject to *chômeur* status:

(14) *jon a -leer -a eshi -taβo xulua mary*
 John SM -bring -T CM7 -book for Mary
 'John brought the book for Mary'

(15) *eshi -taβo shi -leer -w -a xulua mary neende jon*
 CM7 -book CLSM -bring -passive -T for Mary by John
 marker(PM)
 'the book was brought for Mary by John'

Note that in (15) *eshi-taβo* the derived subject triggers class agreement on the verb. This rule of Passivization can also apply to sentences like (1) to produce passive structures like (16), where the NP locative has been promoted to subject status, triggering locative agreement on the verb:

(16) *xu -mu -saala xu -tsii -bw -a -xwo neende jon*
 LM -CM3 -tree LSM -go -PM -T -locative by John
 clitic(LC)
 'on the tree was gone by John'

¹Though not a noun, *inyuma ya* resembles a class 9 word *inyuma* followed by the class 9 associative marker *y-a*, so that if it would at all trigger subject agreement, it would be in the form of the prefix *yi-*.

Though NP locatives can undergo Passivization, and thus be promoted to subject status regardless of whether or not the verb in the sentence belongs to the class of transitive verbs "traditionally" considered to govern Passivization, prepositional phrase locatives cannot under any circumstances be passivized into subject position. The application of Passivization to a structure like (2), for example, yields an ungrammatical output (17):²

- (17) *inyuma ya omu -saala yi -tsii -bw -a -ho neende jon
 behind of CM3 -tree C9SM -go -PH -T -LC by John
 ('behind the tree is gone by John')

In the same manner locative NP's can be shown to undergo Tough Movement, whereas prepositional phrase locatives cannot. Tough Movement in OluTsootso is generally restricted in domain to direct objects only, the adjectives *angu* 'light, easy' and *tinyu* 'hard' preceded by the copula *ni* serving as Tough Movement triggers. The presumed underlying structure is attested on the surface in sentences such as (18):

- (18) oxu -chama jon ni oxw -aangu
 CM15³ -please John is CM15 -easy
 'to please John is easy'

The Tough Moved version of (18) is (19); Tough Movement having raised the object of the embedded clause to matrix subject position:

- (19) jon ni omw -aangu w -oxu -chama
 John is CM1 -easy CM1 -CM15 -please
 'John is easy to please'

Besides direct objects, NP locatives with the markers *xu-*, *mu-*, and *ha-* may undergo Tough Movement. Thus, for example, Tough Movement applies to (20) to yield (21):

- (20) oxu -leera eshi -taβo mu -shi -iro ni oxw -aangu
 CM15 -bring CM7 -book LM -CM7 -market is CM15 -easy
 'to bring a book in the market is easy'

²Note that earlier we cited (13) to demonstrate that prepositional phrase locatives cannot control subject agreement in a sentence; (17), then, would simply serve as another such example.

³CM15 is the infinitive marker.

- (21) mu -shi -iro ni omw -aangu mw -oxu -leera -mwo eshi -taβo
 LM -CM7 -market is LM -easy LM -CML5 -bring -LC CM7 -book
 'in the market is easy to bring a book'

It is not possible, however, to Tough Move prepositional phrase locatives, since this process would yield outputs with the prepositional phrase locative in matrix subject position. We have already noted that prepositional phrases cannot serve as subjects of sentences, so that one must exclude prepositional phrase locatives from the domain of the rules of Passivization as well as Tough Movement, possibly in terms of a general constraint on the language, restricting non-term prepositional phrases from assuming subject position. Given such a constraint, a sentence like (22), wherein a prepositional phrase locative has undergone Tough Movement to become subject, is ungrammatical:

- (22) *inyuma ya in -zu ni yi -angu yi -oxu -leera eshi -taβo
 behind of CM9 -house is CM9 -easy CM9 -CML5 -bring-LC CM7 -book
 ('behind the house is easy to bring a book')

The third syntactic process to which NP locatives are accessible while the prepositional phrase type are not is a Pronominalization rule that deletes a NP, copying it in terms of a clitic pronoun attached onto the verb. This type of Clitic Pronominalization applies to direct objects such as eshi-taβo in (14) to produce a sentence like (23):

- (23) jon a -shi -leer -a xulua mary
 John SM -CM7 -bring -T for Mary
 'John brings it for Mary'

The direct object, eshi-taβo, is pronominalized into an object pronoun, -shi-, in class agreement with its antecedent; -shi- then appears as a prefix on the verb. A locative NP such as mu-shi-iro 'in the market' in a sentence like (24) would be pronominalized into an agreeing locative pronoun mwo which like the direct object pronoun is cliticized onto the verb, (but unlike the case of the direct object, is cliticized as a suffix) to yield a sentence like (25):

- (24) jon a -leer -a eshi -taβo mu -shi iro
 John SM -bring -T CM7 -book LM -CM7 market
 'John brings the book in the market'

- (25) jon a -leer -a -mwo eshi -taβo
 John SM -bring -T -LC CM7 -book
 'John brings the book (in) there'

Prepositional phrase locatives could not be pronominalized in the same way as NP locatives without violating the general constraint against preposition stranding. If the object of the preposition alone were pronominalized and cliticized onto the verb, then the preposition would be stranded, resulting in an ungrammatical sentence. The deletion of the preposition, however, does not render the sentence any more grammatical than before. Thus, Pronominalization of the prepositional phrase locative in (2), for example, in the form of a clitic on the verb, both with or without the deletion of the stranded preposition, generates the ill-formed constructions in (26):

- (26) *jon a -tsi -a -yiiyo (inyuma ya)
 John SM -go -T -CM9 LC (behind of)
 ('John goes behind (it)')

The only way to pronominalize the prepositional phrase locative *inyuma ya omu-saala* in (2) is (27), which is not a clitic-type Pronominalization:

- (27) jon a -tsi -a inyuma ya yu -kwo
 John SM -go -T behind of D -C3
 'John goes behind it'

Another syntactic process to which NP locatives, contrary to prepositional phrase locatives, are accessible is Topicalization. Topicalization in OluTsootso applies on a post-verbal NP, moving it to the left of the sentence, inserting after it a demonstrative pronominal element in agreement with it, and attaching as a prefix to the verb an object marker in agreement with the Topicalized NP.⁴ To illustrate, in (28) the direct object *aβa-ana* 'child' and in (29) the NP locative *mu-shi-iro* 'in the market' are Topicalized:

⁴Due to the constraint against preposition stranding only non-prepositional phrase NP's are eligible for Topicalization; thus chômeurs resulting from the equivalent of the English Dative Movement (ex-direct objects) can undergo Topicalization, while those resulting from Passivization (ex-subjects), being preceded by the preposition *neende*, cannot.

- (28) aβa -ana yaaβo em -ba -lol -a
 CM2 -child C2D I -them -see -T
 'those children ... those children, I see them'
- (29) mu -shi -iro yumwo jon a -mu -leer -a -mwo eshi taβo
 LM -CM7 -market LD John SM -L object -bring -T -LC CM7 book
 'in the market, John brings the book (in) there'

Sentence (29) indicates that Topicalization bestows on the topicalized NP some object-like properties--at least insofar as verbal marking is concerned. Such phenomena tempt one to speculate that Topicalization in this language perhaps involves a promotional step, such that the Topicalized NP is promoted to direct object position, at least with respect to coding properties, and possibly with respect to some behavioral properties as well.⁵ This is why in (29) the topicalized NP locative mu-shi-iro 'in the market' triggers both an object marker prefix and a locative clitic as a suffix on the verb.⁶ In any case, a prepositional phrase locative, unlike the NP locative, cannot undergo Topicalization, as (30) indicates:

- (30) *inyuma ya omu -saala yukwo jon a -ku- -leer -a -yukwo eshi -taβo
 behind of CM3 -tree C3D John SM -C3OM -bring -T -C3D CM7 -book
 ('behind the tree, John brings the book there')

3. NP Locatives and Direct Objects

3.1. Shared properties of NP locatives and direct objects. We have thus far shown that in coding as well as behavioral properties NP locatives stand distinctly apart from prepositional phrase locatives. Furthermore, it has become apparent from their behavioral properties in terms of accessibility to certain syntactic rules (whether the rules directly affect grammatical relations or whether they are sensitive to them in some way) that NP locatives share many behavioral characteristics with

⁵The justification for analyzing Topicalization as a promotion rule in OluTsootso, though a very interesting issue, will not be taken up in this paper, due to its rather marginal relevance to the topic as weighed against its complexity.

⁶We will show later on in the paper that the appearance of a locative clitic as a suffix on a verb indicates that the NP locative in the sentence has undergone a change in grammatical relation.

direct objects--properties not shared by other grammatical relations in the language.⁷ It can be shown, for example, that besides the NP locatives in question, only direct objects (both derived and basic) can undergo the relation-changing rules of Passivization and Tough Movement to be promoted to subject position.⁸

It has been shown in examples (15) and (16) that Passivization can apply to direct objects and NP locatives respectively. It must be noted that in the case of NP locatives the verb governing Passivization is a directional intransitive verb, rather than a transitive verb, which usually governs this rule. A number of directional intransitive verbs in OluTsootso govern Passivization, with some exceptions, among them -its 'come', for example, whose passive version sounds "funny" to native speakers.⁹ In order to substantiate the claim that only direct objects and NP locatives undergo Passivization, one has to show that Passivization of the indirect object *mary* in (14), for example, yields the ungrammatical constructions in (31):

- (31) **mary* -a -leer -w -a eshi -taβo (xulua)¹⁰ neende jon
Mary -SM -bring -PM -T CM7 -book (for) by John
('Mary is brought the book by John')

However, if the indirect object *mary* in (14) is promoted to direct object position prior to Passivization, then Passivization yields a grammatical sentence. Though we do not provide irrefutable evidence for the

⁷We are assuming Postal and Perlmutter's [unpublished lectures] classification of grammatical relations to be correct, so that the possible universal grammatical relations are subject, direct object, and indirect object, with all other NP's being non-terms--either oblique ones which were never terms at any stage of the derivation of the sentence, or chômeurs which held a grammatical relation to the verb only at some earlier stage of the derivation of the sentence.

⁸In OluTsootso there are some verbs that take double objects, one or the other of which is generally more accessible to certain processes. The exact basis on which the grammatical relations of the two objects of a given verb are determined is not of any immediate concern in this paper.

⁹See Dalgish [1976] for a more complete list of directional intransitive verbs governing Passivization in this language.

¹⁰Notice that the sentence is still ungrammatical if the preposition *xulua* meaning 'for' is deleted, so that the ungrammaticality of (31) is not due to a violation of the constraint against preposition stranding.

derivation of sentences like (32) from those like (14), there is reason to believe that there exists a productive process in OluTsootso, somewhat equivalent to Dative Movement, whereby an "applied" suffix, (-il/-el) is attached onto the verb making it benefactive, instrumental, or directional, the case marker denoting benefactive, instrumental or directional is deleted, and the NP whose marker has been deleted is moved to direct object position.¹¹ The Dative Movement rule would apply to (14), for example, to produce (32):¹²

- (32) jon a -leer -el -a mary eshi -taβo
 John SM -bring -applied -T Mary CM7 -book
 marker(AM)
 'John brings Mary the book'

Mary in (32), being a direct object, is accessible to Passivization, as shown in (33), while eshi-taβo the ex-direct object which has been demoted to chômeur status is inaccessible to the rule. This turns out to be indeed the case, as indicated by the ungrammatical (34) where eshi-taβo has been Passivized:

- (33) mary a -leer -el -w -a -eshi -taβo neende jon
 Mary SM -bring -AM -PM -T -CM7 -book by John
 'Mary is brought the book by John'

¹¹This type of proposal is made by Kimenyi [1976] and Givon [1976] for the promotion of indirect objects ("datives" in Givon's terminology) and of instrumentals in the Bantu languages of KiNyarwanda and Bemba, which are of course related to OluTsootso.

¹²It is neither within the scope nor within the goals of this research to show whether the structure in (32) is a derived or underlying one--that is to say whether or not there exists a rule of Dative Movement in the language. The arguments for and against either position are not decisive and clear-cut. In any case, it should be made clear that the absence of a rule of Dative Movement does not affect our argument in any crucial way. Without the Dative Movement analysis, (31) would still be ungrammatical because mary an indirect object has been passivized. In (33), on the other hand, mary would be considered as a basic direct object, undergoing Passivization to yield a grammatical output. However, we strongly suspect that the analysis which postulates a rule of Dative Movement is more motivated; so for the purposes of this paper we shall assume such a rule to exist.

- (34) *eshi -taβo shi -leer -el -w -a mary neende jon¹³
 CM7 -book CM7 -bring -AM -PM -T Mary by John
 ('the book is brought Mary by John')

Having established one behavioral characteristic, involving accessibility to Passivization, shared by only the NP locatives and the direct objects in OluTsootso, the next step is to bring out other such properties exclusively shared by the two relations. Tough Movement is another process that demonstrates such behavior. We have already shown in an earlier part of this paper that direct objects and NP locatives can undergo Tough Movement, whereas prepositional phrase locatives cannot; see sentences (19), (21), and (22) respectively. In order to establish that only direct objects and NP locatives can be promoted to become the subject of a higher clause, it is sufficient to show that indirect objects cannot undergo Tough Movement.¹⁴ Consider sentence (35):

- (35) oxu -leera eshi -taβo xulua mary ni oxw -aangu
 CM15 -bring CM7 -book for Mary is CM15 -easy
 'to bring a book for Mary is easy'

The Tough Moved version of (35) is the ungrammatical (36):

- (36) *mary ni omw -aangu w -oxu -leera (xulua)¹⁵ eshi -taβo
 Mary is CM1 -easy CM1 -CM15 -bring (for CM7 -book
 ('Mary is easy to bring a book for')

Example (37), however, a paraphrase of (35), where mary is the direct object of a benefactive "applied" form of the verb leer 'bring', can undergo Tough Movement to produce a grammatical (38):

- (37) oxu -leer -ela mary eshi -taβo ni oxw -aangu
 CM15 -bring -AM Mary CM7 -book is CM15 -easy
 'to bring Mary a book is easy'

¹³Please note that whereas such sentences are ill-formed in OluTsootso and in ChiMwini, they are grammatical in other Bantu languages such as Swahili and KiMeru, for example.

¹⁴Indirect objects are nevertheless objects of prepositions. In order to show that only direct objects can undergo Tough Movement, one should test the objects of double object verbs. The behavior of such double object constructions is complex, and though if properly analyzed, it could shed some light on the issue, such an analysis has not yet been conducted by us.

¹⁵See footnote 10.

- (38) mary ni omw -aangu w -oxu -leer -ela eshi -taβo
 Mary is CMI -easy CMI -CM15 -bring -AM CM7 -book
 'Mary is easy to bring a book to/for'

Besides the relation-changing rules of Passivization and Tough Movement, there are syntactic processes which, though not relation-changing, are sensitive to grammatical relations, affecting in similar ways direct objects and NP locatives only. Two such syntactic processes are Pronominalization and Relativization.

Clitic Pronominalization has been shown to apply to direct objects and NP locatives in sentences (23) and (25) respectively, but not to prepositional phrase locatives, as illustrated by sentence (26). It remains to be shown that Clitic Pronominalization does not apply to indirect objects either, so as to establish that the behavioral properties of NP locatives and direct objects in Clitic Pronominalization are not only similar, but also that they are not shared by other grammatical relations and non-terms in the language.¹⁶ Clitic Pronominalization, if applied to the indirect object *mary* in (14), would yield the ungrammatical (39):

- (39) *jon a -mu -leer -a eshi -taβo (xulua)¹⁷
 John SM -DM -bring -T CM7 -book (for)
 ('John brought for her a book')

We can show that even if the preposition is not stranded (as it is in (39)), the indirect object is still not acceptable to Clitic Pronominalization. By adding the demonstrative *wuuwo* 'that one (person)' after *xulua*, we have prevented the stranding of the preposition; but the sentence, with the indirect object cliticized onto the verb, is still ungrammatical:

- (40) *jon a -mu -leer -a eshi -taβo xulua wuuwo
 John SM -DM -bring -T CM7 -book for Cl-D
 ('John brought her a book for her')

¹⁶It is unnecessary to check Clitic Pronominalization of subjects for its similarities to and differences from Clitic Pronominalization of direct objects and NP locatives, because the appearance of a subject clitic pronoun (an agreement marker) on the verb is obligatory in all Olu-Tsootso non-imperative sentences, so that the Pronominalization of a subject would simply involve its deletion.

¹⁷See footnote 10.

The argument involving Relativization follows along the lines of the Clitic Pronominalization argument. Having shown two different Relativization strategies, one for prepositional phrases and the other for NP's, due to the constraint against preposition stranding, one expects indirect objects to be relativized by the strategy used for prepositional phrases, since the indirect object case markers appear in front of the indirect objects in the form of a separate word.¹⁸ Indeed, unlike the direct objects and the NP locatives, the indirect objects require a pronominal copy of the target NP when relativized, so that the relative clause would be ungrammatical without it:¹⁹

- (41) *aβa -saatsa a -ʔa -a en- -deer- -a eshi -taβo (xulua) ...
 CM2 -man RM -C2M -RM I -bring -T CM7 -book (for)
 ('the men for whom I brought the books ...')

We have seen, therefore, that direct objects and locative NP's use a different Relativizing strategy than that used by indirect objects and other prepositional phrases. In order to completely distinguish direct objects and NP locatives as one set, different from all other grammatical relations with respect to Relativization, the Relativization strategy used for subjects remains to be examined. Relativization of subjects involves a strategy slightly different from that which is used for direct objects and NP locatives, the difference being that in the former, the relative pronoun has only one relative marker affix on it, as example (42) indicates:

¹⁸Charles Kisseberth pointed out to us that datives like xulua NP, being prepositional phrases, are expected to behave like all other prepositional phrases in the language. In order to distinguish direct objects from other objects of the language, one's attention has to be focussed primarily on unmarked NP's. The lack of distinction between marked and unmarked objects, therefore, reflects one of the limitations of Postal and Perlmutter's theory of Relational Grammar.

¹⁹The grammatical version for (41) would be:

- (i) aβa -saatsa a -βa -a en -deer -a eshi -taβo xulua ya -aβo
 CM2 -men RM -CM2 -RM I -bring-T CM7 -book for D -CM2
 'the men for whom I brought the books . . .'

where a pronoun, demonstrative copy yaaβo 'they (class2)' appears after the preposition.

- (42) aβa -saatsa a -βa -xol -a emi -limo ...
 CM2 -man RM -C2SM -do -T CM4 -work
 'the men who worked ...'

Thus locatives and direct objects are set apart from other NP's with respect to the rules of Relativization and Clitic Pronominalization, which are sensitive to grammatical relations, as well as with respect to relation-changing rules such as Passivization and Tough Movement, making imperative an analysis which accounts for the similarities between the two. Any analysis that sets apart NP locatives from direct objects, as different grammatical relations (or categories totally distinct from each other), misses the generalization that the NP locatives undergo the same relation-changing processes (Passivization and Tough Movement) that underlying and derived direct objects do. Such an analysis would also miss the generalization that the two relations/categories employ the same strategies for (each of) the Relativization and Pronominalization processes, as opposed to subjects, on the one hand, and as opposed to other grammatical relations like indirect objects, etc. on the other.

The commonly accepted analysis, e.g. Trithart [1975], that such NP locatives, typically found in Bantu languages, are prepositional phrases not only misses the above generalizations, but also violates the Universal Subjectivization Constraint [Johnson 1974] and questions its universality. The Universal Subjectivization Constraint states:

- (43) If a certain position on the Relational Hierarchy²⁰ subject > direct object > indirect object > non-term undergoes a subjectivization rule, then all non-subject positions above it on the Relational Hierarchy must be able to undergo that rule.

An analysis wherein the NP locatives are considered to be prepositional phrases would necessarily violate (43). As prepositional phrases, such

²⁰The Relational Hierarchy, which roughly correlates with Keenan and Comrie's [1977] NP Accessibility Hierarchy, ranks the relations in such a way (with subjects in the highest position), as to enable the formulation of linguistic universals using the hierarchy, the constraint in (43) constituting such an example.

NP locatives would be included under non-terms, forcing an analysis that allows for some non-terms and direct objects only to subjectivize via Passivization and Tough Movement, thus leaving a gap of non-subjectivizable NP's on the Relational Hierarchy over the range of indirect objects--indirect objects not being directly accessible to these rules. Such an analysis would either have to reject altogether the Universal Subjectivization Constraint as invalid, or resort to some ad hoc revision of it, e.g. Trithart [1975].²¹

3.2. Differences between NP locatives and direct objects. Evidence has been provided in terms of behavior with respect to relation-changing rules, and from rules which are sensitive to grammatical relations, to suggest that NP locatives have the same grammatical relation to the verb as direct objects do. On the other hand, there is also evidence suggesting that NP locatives and direct objects are distinct from each other.

One such piece of evidence is the fact that NP locatives and direct objects trigger different coding processes. First of all, a relative pronoun formed on a direct object agrees with the class of the head NP, whereas a relative pronoun formed on a NP locative agrees with the locative marker of the head NP. Contrast example (5) with (6) and (7). The same discrepancy in agreement behavior can be found in verbal agreement triggered by a direct object and that triggered by a NP locative, once they are subjectivized as in passive sentences. A subjectivized direct object triggers class agreement on the verb whereas a subjectivized NP locative triggers verbal agreement with the locative marker.²² Contrast

²¹Trithart's Revised Subjectivization Constraint is circular:

- (i) If a language can subjectivize an NP low in the Relational Hierarchy, then it can subjectivize NP's in all intermediate positions, where subjectivizable is defined recursively as follows:
- a) X is subjectivizable if L has a rule $X \rightarrow \text{Subject}$
 - b) X is subjectivizable if L has a rule $\rightarrow Y$, where Y is subjectivizable.

²²Note that it is possible to analyze the locative marker as a class prefix, so that the coding processes for NP locatives and direct objects would appear to be similar. However, it can be shown that the locative NP has a class prefix of its own, other than the locative marker, which

example (15) with (16). Another difference between the two is that Clitic Pronominalization involves the appearance of a verbal agreement prefix for direct objects, whereas the verbal agreement for NP locatives is in the form of a suffix, as shown in (23) and (25) respectively.

There exists another major coding difference between direct objects and NP locatives. A NP locative leaves a locative clitic on its verb, if it undergoes a change in grammatical relation, whereas a direct object leaves no clitic on its verb when undergoing a change in grammatical relation. Contrast the subjectivized direct object and NP locative in the passive sentences (15) and (16) respectively. The verb in (15), *shi-leer-w-a*, is made up of the subject marker, followed by the verb stem, the passive suffix, and the tense marker. The verb in (16), *xu-tsii-bw-a-xwo*, has one suffix in addition to the elements found in the verb in (15), namely *-xwo*, a locative clitic indicating the underlying grammatical relation of the subject. The same phenomenon is true of NP locatives when subjectivized via Tough Movement, as sentence (21) shows. The embedded verb in (21) carries a locative clitic *-mwo* indicating the underlying grammatical relation of the matrix subject with the embedded verb.

Besides the above differences in the coding properties they trigger, there is another not less substantial argument for considering direct objects and NP locatives as distinct relations, despite their main similarities. There is sufficient motivation for positing a rule of Locative Marker Deletion in OluTsootso, whereby a NP locative is transformed into a direct object. The immediate output of this rule is not attested in the language, so that such an output serves as an intermediate structure for rules such as Pronominalization, Relativization, Topicalization, Passivization, and Tough Movement, which treat the NP locatives whose markers have been "stripped off" as if they were direct objects.

must under the circumstances, be interpreted as a case marker. There are sentences in which the locative NP can be separated from its locative prefix, and then undergo the rules discussed above. When this happens, all agreement is with the NP, and not with the locative marker. See Dalgish [1976b] for some examples. Also, see the discussion, following in the text.

Clitic Pronominalization of *mu-shi-iro* in (24), results in (25) and a syntactic variant of it (44), where the clitic pronoun is in form of an object pronoun reflecting class agreement with *shi-iro*, thus indicating that *shi-iro* has become the object, probably at a stage in the derivation prior to Clitic Pronominalization. In addition, there is a locative clitic *-mwo* on the verb, indicating that the underlying NP locative has undergone some change in grammatical relation.

- (44) *jon a -shi -leer -a-mwo eβi -taβo*²³
 John SM -C7OM -bring -T -LC CM8 -books
 'John brings the books in it'

Likewise, relativized NP locatives as in (6) and (7) have syntactic variants wherein the locative markers have been deleted from the NP locatives, so that the relative pronoun includes an object marker agreeing in class with the "stripped" NP, and the verb has a locative clitic attached to it, indicating a change in the grammatical relation borne by the target of Relativization. The syntactic variants of (6) and (7) are (45) and (46) respectively:

- (45) *eshi -iro e -shy -a jon a -leer -a -mwo eshi -taβo ...*
 CM7 -market RM -C7M -RM John SM -bring -T -LC CM7 -book
 (object)

'the market which John brings a book in ...'

- (46) *in -zu e -yi -a jon a -tsi -a -xwo ...*
 CM9 -house RM -C9M -RM John SM -go -T -LC
 (object)

'the house which John goes on ...'

Topicalized locative NP's as in (29) were hypothesized earlier in the paper to have undergone objectivization, even without being "stripped" of their locative markers, so that they trigger object agreement and leave a locative clitic on the verb, indicating that they have undergone a change in grammatical relation. Sentences like (29) have their syntactic

²³The object, *eβi-taβo* 'books' is substituted for *eshi-taβo* 'book' simply to eliminate the possibility that the C7OM would be "agreeing" with 'book', and not *-shi-iro* (class 7) 'market'. If the OM in (44) were agreeing with 'books', the C8OM *-βi* would appear on the verb, instead of the *-shi* C7OM, which does occur.

variants in sentences such as (47), where the Topicalized NP locative, "stripped off" of its locative marker, is clearly a direct object, triggering object agreement and leaving a locative clitic on the verb indicating that the locative NP has undergone a change in grammatical relation:

- (47) eshi -iro yiisho jon a -shi -leer -a -mwo eþi -taþo
 CM7 -market C7D John SM-C7OM -bring -T -LC CM8 -books
 'that market John brings the books in it'

Passive and Tough Moved sentences with NP locatives as subjects also have syntactic variants in which the subjectivized NP's are "stripped off" of their locative markers, the verbs agreeing with them in class, as with subjectivized direct objects. Thus, for example, the Passive (16) has a variant in (48), while the Tough Moved (21) has its variant in (49):

- (48) omu -saala ku -tsii -bw -a -xwo neende jon
 CM3 -tree C3SM -go -PM -T -LC by John
 'the tree was gone on by John'
- (49) eshi -iro ni eshi -aangu shi -oxu -leer -a -mwo eshi -taþo
 CM7 -market is CM7 -easy CM7 -CM15 -bring -T -LC CM7 -book
 'the market is easy to bring a book in'

It should be clear, then, that NP locatives are different from direct objects, not only because they have different coding properties from those of direct objects, but also because NP locatives can be transformed into direct objects by "stripping off" their locative markers, as the above data has shown.²⁴

3.3. NP locatives and direct objects as subrelations. An analysis which provides the basis for capturing the generalization that direct objects and NP locatives share certain behavioral properties and which at the same time allows for differences in coding properties, can only be one

²⁴Note that prepositional phrase locatives, unlike NP locatives, cannot be "stripped off" of their prepositions due to the general constraint against preposition stranding.

wherein NP locatives and direct objects constitute distinct subrelations within a single but broader grammatical relation which we shall call "supra direct objects" simply for lack of a better term.²⁵

There are other works, e.g. Sheintuch [1976], which show the need for a finer subclassification of grammatical relations for certain languages. Such language-specific sub-grammatical relations are generally semantically specifiable, basic (as opposed to derived) grammatical relations. Further investigation of grammatical relations in various languages should clarify whether such language-specific subrelations are motivated and governed by universal principles, and if so, an attempt should be made towards the discovery of such principles.

²⁵There seems to be one type of counterexample, indicating that NP locatives can also be underlying subjects, as shown by the lack of appearance on the verb of the locative clitic which designates that the NP locative has undergone a change in grammatical relation. See, for example, (i):

- (i) xuu -n -zu xu -bal -a
 LM -CM9-house LSM -be warm -T
 'on the house was warm'

Though we admit that we have not looked into this matter carefully, we offer a suggestion of what may be happening here. Based on the observation that the equivalent of such sentences in English and many other languages are generally either subjectless or have a dummy element, e.g. it in English, for subject, as (ii) demonstrates:

- (ii) It was warm in the house.

we speculate that sentences such as (i) are underlyingly subjectless, and that the NP locatives have been promoted to subject position via a once productive syntactic process, triggering a locative clitic on the verb. Historically, however, this process might have lost its productivity so causing the gradual loss of the locative clitic on the verb. In any case, more research must be devoted to this matter before any conclusions can be drawn.

REFERENCES

- Dalgish, G.M. 1976a. "Passivizing locatives in Olutsootso." In Charles W. Kisseberth, et al. (eds.), *Studies in the Linguistic Sciences*, 6(1):57-67. Urbana, Illinois: University of Illinois Department of Linguistics.
- Dalgish, G.M. 1976b. "Locative NP's, locative suffixes, and grammatical relations." In Henry Thompson, et al. (eds.), *Proceedings of the Second Meeting of the Berkeley Linguistic Society*, pp. 139-48. Berkeley: Berkeley Linguistics Society.
- Givon, T. 1976. "Promotion, accessibility, and case marking: toward understanding grammars." Ms., University of California, Los Angeles.
- Johnson, D. 1974. "Toward a theory of relationally based grammar." Doctoral dissertation, University of Illinois, Urbana, Illinois.
- Keenan, E. 1975. "Towards a universal definition of 'subject'." In Charles N. Li (ed.), *Subject and Topic*, pp. 303-33. New York: Academic Press.
- Keenan, E., and B. Comrie. 1977. "Noun phrase accessibility and universal grammar." *Linguistic Inquiry*, 8:63-99.
- Kimenyi, A. 1976. "A relational grammar of Kinyarwanda." Doctoral dissertation, University of California, Los Angeles.
- Sheintuch, G. 1976. "On the gradation of grammatical relations." In Charles W. Kisseberth, et al. (eds.), *Studies in the Linguistic Sciences*, 6(1):186-94. Urbana, Illinois: University of Illinois Department of Linguistics.
- Trithart, L. 1975. "Relational grammar and Chichewa subjectivization rules." In Robin E. Grossman, et al. (eds.), *Papers from the Eleventh Regional Meeting, Chicago Linguistics Society*, pp. 615-25. Chicago: University of Chicago Department of Linguistics.