Applicatives in Kambera

Marian Klamer

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1. *Introduction*

Kambera applicative verbs are formed from base words of different categories by adding a velar nasal to the base, as can be seen from the derivations given in (1):

(1) Applicative derivations in Kambera

V-*tr*	kei	*buy/acquire* X	kei-**ng**	*buy*(X) *for* Y
	palu	*hit* X	palu-**ng**	*hit*(X) *for* Y
V-*intr*	katuda	*sleep*	katuda-**ng**	*sleep on* Y
(-*act*)	njoru	*topple/fall*	njoru-**ng**	*fall on* Y
V-*intr*	karàkih	*hold (oneself)*	karàkihu-**ng**	*hold on to* Y
(+*act*)	ndolak	*stand up*	ndolaku-**ng**	*stand up for* Y
Noun	ana	*child*	ana-**ng**	*be child of* Y
	angu	*friend*	angu-**ng**	*be friend of* Y

Applicative verbs that have a transitive verb as their base, have two objects: a direct object, which is the semantic PATIENT or THEME, and an indirect object, semantically the GOAL/BENEFICIARY/MALEFICIARY.

Clitics are used to cross-reference definite NPs. The subject and both of the objects of applicative verbs may be marked on the predicate with the pronominal clitics given in (2) below. There are two object clitic paradigms,

one for direct objects[1] and one for indirect objects.[2] They are given in (2) as Accusative and Dative, respectively.

(2)	Nominative	Accusative	Dative	Genitive	Pronoun
1s	ku-	-ka	-ngga	-nggu	*nyungga*
2s	(m)u-	-kau	-nggau	-mu	*nyumu*
3s	na-	-ya	-nya	-na	*nyuna*
1p(inc)	ta-	-ta	-nda	-nda	*nyuta*
1p(exc)	ma-	-kama	-nggama	-ma	*nyuma*
2p	(m)i-	-ka(m)i	-ngga(m)i	-mi	*nyimi*
3p	da-	-ha	-nja	-da	*nyuda*

Sentences illustrating the use of the object clitics are given in (3), (4) and (5) below. In sentence (3) the underived verb has one object (a PATIENT), which is marked on the predicate as an Accusative clitic:

(3) I Ama na-kei-ya na rí muru.
ART father 3SN-buy-3SA ART vegetable green
'Father he-buys-it the green vegetable: Father buys the green vegetables.'

It is possible to express both direct and indirect object with pronominal clitics. However, if the indirect object is implied or indefinite, the applicative verb retains its non-cliticized form, i.e. with the applicative morpheme but without an object clitic. This is illustrated in the sentences (4) and (29) below, which express a reciprocal meaning:

(4) Da- kawàra pa-ita-**ng** wiki-da.[3]
3PN- both CAU-see-APP self-3PG
'They both show (someone) themselves: They reveal themselves to each other.'

The clitic that cross-references the indirect/applicative object in applicative constructions (cf. (5) (a,b) below) is a portmanteau morpheme that encodes two different types of information at the same time: both the applicative

[1] This clitic is also used to mark the argument ('subject') of a non-verbal predicate.

[2] This subdivision is not strict, but is a good rule of thumb. I am not concerned with the idiosyncratic details of pronominal cross-reference here.

[3] Compare the following sentence (i) which does not contain an applicative verb:
(i) Da-kawàra pa-ita la parangga
3PN-both INT-see LOC market
'They (both) see each other at the market'

status of the verb and the indirect object argument.[4] In some cases the indirect object (GOAL/BENEFICIARY etc.) may be the only object clitic marked on an applicative predicate, as in (5):

(5) a. Da-kawàra pa-ita-**nya** na potu.
3PN-both CAU-see-3SD ART photo
'They both showed him the photograph.'

b. I Ama na-kei **-nja** na rí muru nyuda.
ART father 3SN-buy for **-3PD** ART vegetable green they
'Father he-buys-them the green vegetables they: Father buys green vegetables for them.'

However, it is also possible to mark both direct and indirect object on the applicative verb. In sentence (6) the applicative verb has two objects:[5]

(6) I Ama na-kei **-ngga** **-nya**.
ART father 3SN-buy for -1SD (IO) -3SD (DO)
'Father bought it (DO) for me (IO).'

In this paper, I will discuss the structural properties of the two object NPs in applicative constructions (cf. (5b) *na rí muru* = direct object NP, *nyuda* = indirect object NP). My hypothesis is that the two object NPs do not differ in their structural properties. In other words, they are structurally symmetrical. This absence of asymmetry between a direct and an indirect object NP in applicative constructions is quite unexpected in light of many accounts of similar constructions in the literature.

2. *Preposition Incorporation: Asymmetry of object* NPs

In his account of applicatives, Baker (1988) stresses[6] a syntactic explanation for the valency change that is typically connected with applicative construc-

4 This is *not* a case of phonological assimilation between the applicative nasal and the Accusative clitic (*/ng/ plus *ya* → *nya*). Because of limited space I cannot go into this matter.

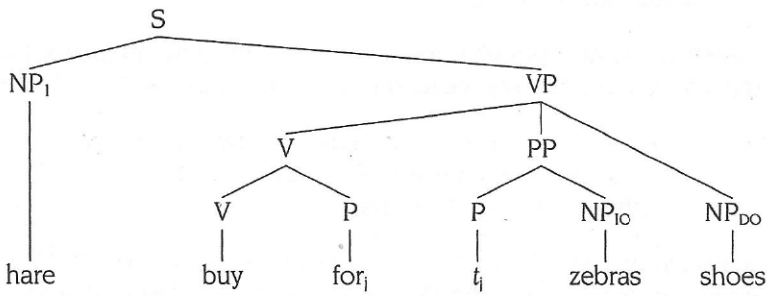
5 A Kambera pronominal clitic cluster has idiosyncratic restrictions, the most important of which are illustrated by sentence (6): (1) there are two 'slots' for object clitics, the second of which may only contain a Dative clitic, although it usually refers to a PATIENT argument (2) the object clitic order is always IO clitic–DO clitic (3) if both object 'slots' in the clitic cluster are filled, the IO clitic cannot be third person singular/plural (only first or second) whereas the DO clictic can *only* be third person (sg./pl.). These idiosyncratic properties of the pronominal clitic cluster suggest that this cluster is a system with its own rules that are more or less independent of the syntactic rules.

6 Syntactic derivation of applicatives is more restrictive than lexical derivation, and is, therefore, to be preferred. However, Baker does not *exclude* a lexical derivation of syntax by

tions. In Baker's Preposition Incorporation (PI) analysis, applicative constructions are the result of head-to-head movement and incorporation of a Preposition. The applicative object NP is embedded in a Prepositional Phrase in D-structure. Before S-structure, Preposition Incorporation takes place which adjoins the head of the PP to the Verb, leaving a trace. For the Chichewa sentence in (7) Baker (1988:250) assumes an S-structure as in (8):

(7) Kalulu a-na-gul-ir -a mbidzi nsapato.
hare SP-PAST-buy-for-ASP zebras shoes
'The hare bought shoes for the zebras.'

(8)



The $[_V$ V + P] complex governs the stranded indirect object NP and assigns structural objective Case to it in S-structure. As a result, the applicative object becomes the derived direct object and the original direct object can no longer get the verb's Case.[7] In this way, Baker gives an explanatory account of the facts connected to applicative constructions in many languages.

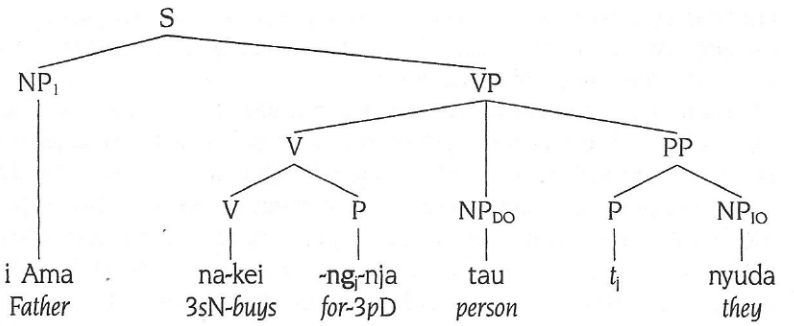
The following tree (S-structure of sentence (5b) above) could be illustrative of a PI-analysis of an applicative sentence in Kambera:[8]

productive PI if it is derived from a case-assigning base. "If there is a sentence form which appears to be an applicative of a non-Case-assigning verb it must be derived in the lexicon and it is generally not fully productive and has an idiosyncratic semantic interpretation" (1988:258).

7 Baker assumes that the original direct object NP has undergone prior abstract Noun incorporation, which leads him to predict that this NP no longer behaves like a genuine direct object. Baker (1988a:264 ff.) also discusses real 'double object' constructions in Kinyarwanda. In his analysis of Kinyarwanda applicatives, Baker makes use of the fact that Kinyarwanda verbs have the property of being able to assign two structural (accusative) Cases. This is a special Case property which Kinyarwanda also makes use of in morphologically *underived* double object constructions (ibid.: 174). In Kambera, there are no verbs that assign two structural Cases, nor does Kambera have underived double object constructions.

8 As long as one assumes that the NPs are the verbal arguments and the pronominal clitics are simply agreement markers (as is the case in for example Kinyarwanda, Baker 1988: 174 ff., 265 ff.). Why this assumption is refutable – and consequently, why this tree structure is not appropriate for Kambera, will be discussed below.

(9)



Is P-Incorporation the right account for the valency change connected with the derivation of Kambera applicatives? This question is addressed in the remaining sections of this paper. Note that in (9) the alleged stranded indirect object NP is *not* adjacent to the verbal complex in S-structure as it should be in order to receive structural Case, according to the PI-analysis.

One of the predictions of the PI-analysis is that an applicative object NP, which is governed by a Preposition, should show extraction facts different from the direct object NP, which is not governed by P. The trace of P is crucial in that it blocks *wh*-extraction of the indirect object NP by causing the variable left behind to violate the Non Oblique Trace filter (ibid.: 299, 302). This structural asymmetry implies and predicts asymmetry in syntactic behaviour.

In the next section (section 3.1) I will test this prediction on the Kambera data. I present evidence that there are no reasons to assume any asymmetry between direct and indirect object NPs in Kambera. The evidence consists of traditional constituency tests (sect. 3.1.1), relativization and *wh*-extraction (sect. 3.1.2) and possessor and quantifier (sub)extraction (sect. 3.1.3). The evidence suggests that both object NPs have the *same* structural properties. I propose an explanation for this in section 3.1.4.

The PI-analysis of applicatives predicts the existence of the constructions as in (10a) and (10b), but not those in (10c) or in (10d):

(10) a.	V and $[_{PP}$ P [NP]]	(simple verb + embedded NP)
b.	$[_{V}$ V + P] and $[_{PP}$ *t* [NP]]	(applicative verb + bare NP)
c.	$[_{V}$ V + P] and $[_{PP}$ P [NP]]	(applicative verb + embedded NP)
d.	$[_{V}$ V + P] and $[_{PP}$ *t* [@]]	(applicative verb + no NP)

The structure in (10c) illustrates the existence of the for the PI-analysis unexpected situation where an applicative clause has *two* Prepositional elements governing the same indirect object argument (i.e. an applicative morpheme and a Preposition). (10d) represents a structure where the Verb is applicative but has no GOAL/BENEFICIARY argument. According to the PI-analysis, in such a construction the Preposition would have been generated as an intransitive Preposition, i.e. without an NP. However, for the same

applicative verb *also* to have a GOAL/BENEFICIARY NP would be quite an unexpected situation, because in that case the applicative morpheme would be both intransitive *and* transitive.

In Kambera, constructions as in (10c) and (10d) do exist (see (30a) and (30b) below). This will be discussed in section 3.2. Such structures suggest that the applicative morpheme is not an incorporated lexical head. In the same section additional evidence (such as the irregular semantics of applicatives, the fact that applicatives are not fully productive and that they may have a non-Case assigning base) is presented and it is argued that Kambera applicative verbs must be considered to be derived lexically.

3. *Symmetry hypothesis*

3.1. *Free word order, optionality and similar cross-reference properties*

Kambera word order is quite free. The transitive sentences in (11) illustrate the logical orders allowed for the Subject NP and the Object NP.[9]

(11) a. I Windi na-palu-ka nyungga. S *Pred* DO
ART Windi 3SN-hit-1SA I
'Windi she-hit-me I: Windi hit me.'

b. Nyungga na-palu-ka i Windi. DO *Pred* S
I 3SN-hit-1SA ART Windi
'I she-hit-me Windi: Windi hit *me*.'

c. Palu-na-nya tau nyuna. *Pred* DO S
hit-3SG-3SD person he
'Hit-his-him a person he: he is hitting someone.'

d. Palu-na-nya i Ama nyuna. *Pred* S DO
hit-3SG-3SD art father he
'Hit-his-him Father he: Father is hitting him.'

(12) Nyuna iya na- kei -nja. S DO *Pred*
he fish 3SN- buy for -them (=*Applic.*)
'He fish he-buys for-them: he buys fish for them.'

In (13) and (14) below the direct and indirect object change places, while in (15) both occur after the predicate. This suggests that the mutual order of object NPs is rather free.[10]

[9] But note (12): it is only possible to 'topicalize' both Subject NP and Direct Object NP if the predicate is applicative.

[10] But not quite: there are restrictions on the mutual order and use of object NPs. For example (1) [Appl. verb + indir. obj. clitic] $[DO]_{NP}$ $[IO]_{NP}$ is fine but *[Appl. verb + indir. obj. clitic] $[IO]_{NP}$ $[DO]_{NP}$ is not. (2) *$[DO]_{NP}$ $[IO]_{NP}$ [Applic. V + indir. obj. clitic] and * [IO] [DO] [Appl. V + indir. obj. clitic] are ungrammatical because it is impossible to front two object NPs at the same time.

Usually the pronominal clitics function as pronouns, provided that the referent is definite. In many contexts the NPs are optional, that is, they may be omitted if there are pronominal clitics crossreferencing them.[11] In the sentences (11) and (12) above, the subject NP is present. However, the sentences (13), (14) and (15) below illustrate the omission of the subject NP. These three sentences are all applicative clauses, i.e. they all have both an indirect and a direct object. They illustrate the optionality of not only the subject, but also of the indirect object NP (*nyuda* 'they'), which is indicated by braces.

(13) Na mbuku yena ku-kei-nja {nyuda}. DO *Pred* {IO}
ART book that 1SN-buy for-3PD they
'That book I-buy for-them {they}: that book I'll buy for them.'

(14) {Nyuda} na-kei-nja tau. {IO} *Pred* DO
they 3SN-buy for-3PD person
'{They} he-buys for-them a person: for them he buys/acquires brides.'

(15) Na-kei-nja tau {nyuda}. *Pred* DO {IO}
3SN-buy for-3PD person they
'He-buys for-them a person {they}: he acquires brides for them.'

The optionality of the direct object NP in an applicative construction is illustrated in (16):

(16) Daingu ma- wua -nggau -nya. {na tawuru}[12]
sure 1PN- give to -2SD -3SD ART ring
'Sure we-give to-you-it {the ring}: surely we give you the ring.'

The sentences (11)-(16) illustrate two things. In the first place, there is an appositional relation between NP and pronominal clitic, which is the same for direct and indirect object NP, because both NPs are optional as long as they have a clitic marking. Secondly, both the direct object NP and the indirect object NP may be cross-referenced on the predicate. Either separately (as in (12)-(15) above), or together (as in (6) and (16) above). In this respect, i.e. the possibility of being cross-referenced on the predicate, they do not show asymmetrical behaviour.

[11] Pragmatic factors (givenness, knownness, topicality etc.) determine whether NPs are used in addition to clitics.

[12] In applicative constructions, the Direct Object NP is only optional when it is cross-referenced on the predicate, because then the pronominal clitic is the argument and the NP has adjunct status. If the NP is definite without being cross-referenced (which is only possible in applicative constructions!), it is *not* optional and has argument status. If an NP is indefinite, it is never cross-referenced. In that case the NP has argument status, which means that it is obligatory.

3.2. Other *grammatical evidence*

3.2.1 *Relativization*

In Kambera, a passive relative clause cannot formally be distinguished from a passive sentence. PATIENTS and GOALS/BENEFICIARIES are relativized with a passive relative marker (*pa-*) on the verb.[13] A relative clause always has nominal status, whether it has an article or not. Together with its head, the relativized NP, it thus may form a sentence which consists of two juxtaposed NPs. The AGENT argument of the verb is expressed by the Genitive clitic (e.g. *-na* in (17)).

The sentences in (17) show how a direct object (PATIENT) is relativized. (17a) is a non-relativized sentence. The relativized sentence (17b) consists of two coindexed NPs: the head of the relative clause (*na ana manu*) and the relative clause itself (*na parupu-na-nya*).

(17) a. Na-rupu -nya na ana manu.
3SN-kill for -3SD ART child chicken
'He-kills for-him the little chicken.'

b. [Na ana manu] [na pa-rupu -na -nya].
ART child chicken ART RC-kill -3SG -3SD $_{IO/*DO}$
'The little chicken the (one of) his killing for him (IO/*DO): The little chicken that he killed for him.'

The object clitic *-nya* in both sentences of (17) refers to the *indirect* object, while the head of the relative clause, the *direct* object NP, cannot be cross-referenced.

The sentences in (18) show a parallel pattern. Here the indirect object NP is relativized. (18b) is the non-relativized sentence, (18b) the relativized one:

(18) a. Ta- rupu -nya na manu bàkul **na tau Jawa**.
1PN- kill for -3SD ART chicken big ART person Java
'We-kill for-him (IO) the big chicken the Javanese person: we kill the big chicken for the stranger.'

b. [Na tau Jawa] [na pa-rupu[14]-nda -nya [na manu bàkul]].
ART person Java ART RC-kill for-1PG -3SD $_{DO/*IO}$ ART chicken big
'The Javanese person the (one of) our killing for it (DO/*IO) the big chicken: the stranger for whom we killed the big chicken.'

[13] AGENTS and POSSESSORS are relativized with an active relative clause marker (*ma-*).

[14] Note that the applicative morpheme is not visible in relativized constructions. Still, it is correct to assume that the verb is applicative: first, because the meaning of the sentence suggests the verb to be applicative instead of transitive, second, because the applicative nasal morpheme *always* forms a portmanteau morpheme with the pronominal object clitic. When an indirect object is relativized, the portmanteau pronominal clitic becomes a trace.

The object clitic *-nya* in (18b) refers to the *direct* object *na manu bàkul*, while the head of the relative clause, the *indirect* object *na tau Jawa*, cannot be cross-referenced. In both cases it is ungrammatical to cross-reference the head NP of the relative clause on the predicate. The conclusion may be that direct and indirect object NPs do not show any asymmetry in relativization.

3.2.2. *Wh-movement of object arguments*

An object argument of a Kambera sentence can only be questioned by changing the sentence into a (passive) relative clause, of which the question word becomes the head. In effect then, sentences that have undergone question movement have the same structure as the relative clauses illustrated in (17) and (18) above. Sentence (19) below illustrates question movement of a direct object, while (20) illustrates how an indirect object is questioned. In both cases the question word is the head of the relative clause (moved to an A-bar position[15]).

(19) **Nggàra** pa-rupu -na-nya ?
what RC-kill for -3SG-3SD
'What (that is) his killing for him: What did he kill for him?'

(20) **Nggamu** pa-bunggahu pindu ?
who RC-open door
'Who (that is) opened a door for: For whom is the door opened?'

Thus, in Kambera both objects are questioned in the same way: by using a passive relative construction, of which the question word is the head.

From the examples in (17), (18), (19) and (20) it can be seen that the direct and indirect object NP behave in a similar way when relativized or questioned: in both cases, the passive relative construction is used.

3.2.3. *Direct and indirect object* NPs *as domains of extraction*

Other evidence for a possible asymmetrical behaviour of NPs could be their status as a domain for possessor and quantifier (sub)extraction. I will discuss both types of extraction in turn, and I will propose that the negative evidence given by the data suggests that both NPs are Adjunct Islands.

It is well-known that it is possible to extract material out of an object in English, but not out of a subject:

[15] This is an instance of topicalization, as in the following sentence, which in addition contains a resumptive pronoun:

(i) Nggàra -ya -ka na pa-rupu -na -nya ?
what 3SA ASP ART RC-kill -3SG -3SD
'What was it that he killed for him?'

(21) a. Who did you see the pictures of? *Extraction from Object* NP
b. *Who did pictures of upset you? **Extraction from Subject* NP

This type of extraction extracts material *out of* an NP, for instance its possessor, and is also called *subextraction*. The difference between the (a) and (b) sentence in (21) has been accounted for by assuming a Condition on Extraction Domains, as proposed by Huang (1982:505):

(22) **Condition on Extraction Domains (CED)**
A phrase A may only be extracted out of a domain B if B is properly governed by C, i.e. if C is a lexical category that governs B.

A lexical category governs a phrase only if it c-commands that phrase. Since in English the verb c-commands the object but not the subject (or an adjunct), the difference between the sentences in (21) follows. Thus the test is whether or not an NP is the domain for subextraction. According to the CED, such an NP, is one that is being c-commanded by the verb, i.e. it is a verbal complement. An NP which is not a subextraction domain is a so-called Adjunct Island.

If the two object NPs in Kambera show different properties with respect to this type of extraction, this could be evidence that they differ in grammatical status: the one that allows subextraction is a verbal complement, the one that does not is an adjunct.

In Kambera, subextraction from an NP is impossible, whether from a subject, a direct object or an indirect object NP. The sentences in (23) and (24) are an illustration. The sentences in (23) involve a possessed direct object NP, and those in (24) a possessed indirect object NP.[16]

(23) a. Na-rupu -nya [na manu-na [i Windi]].
3SN-kill for -3SD ART chicken-3SG ART Windi
'He-kills for-him the chicken of Windi:He kills Windi's chicken for him.'
b. Na-rupu -nya [na manu-na [i **nggamu**]] ?
3SN-kill for -3SD ART chicken-3SG ART **who**
'He-kills for-him the chicken of who?: Whose chicken does he kill for him?'
c. [Manu-na [i **nggamu**]] [pa-rupu -na-nya] ?
chicken-3SG ART **who** RC-kill for -3SG-3SD
'The chicken of who (that is) his killing for him?: The chicken of who did he kill for him?'

[16] The clitic *-nya* in (23d) refers to the argument of the nominal predicate (it functions as a resumptive pronoun). It is Dative as a result of an idiosyncratic property of Kambera clitic clusters, which states that in a (linear) sequence of two pronominal clitics, the second clitic always has to be Dative.

d. [**Nggamu** [manu -na]] -nya ihi [na pa-rupu -na -nya]?
who chicken-3SG -3SD MOD ART RC-kill for-3SG-3SD
'Whose chicken is it (that is) his killing (for) him?: Whose chicken is it that he killed for him?'[17]

e. *Nggamu$_j$ na- rupu -nya [na manu-na$_j$ [t_j]] ?
who 3SN- kill for -3SD ART chicken-3SG
'Who he-kills for-him the chicken of *t*: Who does he kill for him the chicken of *t* ?'

In the sentences (23a) and (24a) the structure of a sentence with an unquestioned possessed NP is given. The possessed head of the NP (e.g. *manu* 'chicken') is always marked with a possessor clitic that refers to the possessor NP (e.g. *Windi*). The sentences (23b) and (24b) show that a possessor may be questioned *in situ*. Sentences (23c) and (24c) illustrate that this *in situ* questioned possessed NP may be topicalized as a whole. From inside the topicalized NP, it may also be moved (see (23d) and (24d)), but it is ungrammatical to subextract the question word alone, as the ungrammatical sentences (23e) and (24e) show.

(24) a. Na- bunggahu -nya pindu [na ana -na [i Windi]].
3SN-open for -3PD door ART child -1SG ART Windi
'He-opens for-her a door her child (of) Windi: He opens the door for Windi's child.'

b. Na- bunggahu -nya pindu [na ana -na [i **nggamu**]].
3SN-open for -3PD door ART child-1SG ART **who**
'He-open for-her the door the child of who: He opens the door for the child of who?'

c. [Ana -na [i **nggamu**]]$_j$ -ya [na pa- bunggahu-na pindu t_j]?
child -3SG ART **who** -3SA ART RC- open for-3SG door
'It (is) the child of who the (one of) his opening the door for: The child of who is it that he opened the door for?'

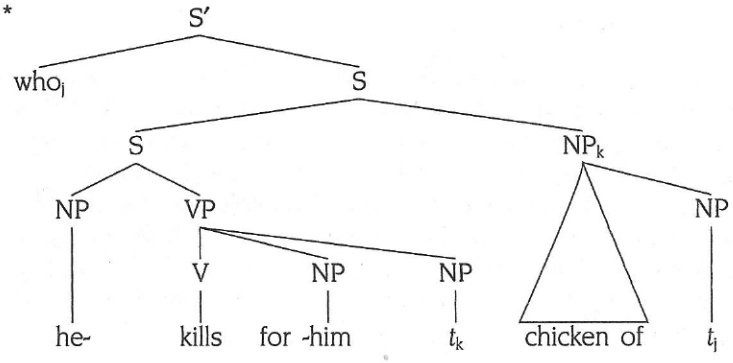
d. [**Nggamu** $_j$ [[ana -na] t_j]] $_k$ -nya ihi na pa-bunggahu-na pindu [t_k]?
who child-3SG -3SD MOD ART RC-open for-3SG door
'The child of who is it maybe the (one of) his opening the door for: Whose child is it that he opened the door for?'

e. *Nggamu $_j$ na-bunggahu-nya pindu [na ana-na $_j$ [t_j]]
who 3SN-open for-3SD door ART child-3SG
'Who he-open for-her the door the child of *t*: Who does he open the door for the child of *t* ?'

[17] The structure as it is in this sentence is used more frequently than the one in the previous sentence. The same is true for sentence (24d) below.

In conclusion, Kambera does not allow possessor subextraction for either direct objects or indirect objects. This suggests that neither of the NPs is c-commanded by the verb, more specifically, that they are Adjunct Islands. The structure of the ungrammatical sentence (23e) would be as in (25); this sentence is ruled out by the Condition on Extraction Domains mentioned above. (The structure of sentence (24e) would be similar.)

(25) *



The conclusion is that both object NPs have adjunct status, possibly coindexed with the pronominal clitic that has argument status. There is no evicence for a direct-indirect object asymmetry with respect to possessor subextraction out of the NPs: subextraction from either object NP violates the Condition on Extraction Domains.

If both object NPs are adjunct islands, it is expected that other types of extraction from NPs, such as Quantifier extraction, are also impossible. The data given in (26) and (27) confirm this. If the quantifier of an NP is questioned, the sentence – again – becomes a relative clause, this time headed by the quantified NP, which may also form a cleft. The extraction data presented in (26) and (27) are similar to those of the sentences in (23) and (24), so I will not discuss them in detail.

(26) a. Ku- kei -nya [**tailu mbua** [tilu manu]].
1SN-buy for-3SD three CLF egg chicken
'I-buy for-him three pieces chicken eggs: I buy three eggs for him.'

b. [**Pira mbua-da** [da tilu manu]] pa-kei-mu ?
how many CLF -3PD ART egg chicken RC-buy-2SG
'How many pieces of them the chicken eggs of your buying: How many (of them) eggs did you buy?'

c. *[**Pira mbua -da**] pa-kei-mu [*t* [tilu manu]].
how many CLF -3PG RC-buy-2SG egg chicken
*'How many pieces (of them) did you buy *t* eggs?'

(27) a. Ku-kei -nja kalembi [da tau [**ma-dua**]].[18]
1SN-buy for -3PD clothes ART person RC-two
'I-buy for-them clothes the people that are two: I buy/bought clothes for the two people.'

b. [Tau [**ma-pira**]] -ha da tau da pa-kei -mu kalembi?
person RC-how many -3PA ART person ART RC-buy for-2SG clothes
'How many people are they, the people of your buying clothes for: How many people did you buy clothes for?'

c. *[**Ma-pira**] -ha pa-kei -mu kalembi [da tau *t*].
RC-how many -3SA RC-buy for-2SG clothes ART person
*'How many are they (that) you bought clothes for the people *t*.'

3.2.4. *Asymmetrical c-command?*

The question which I will just briefly consider here is whether there is evidence for a relation of asymmetrical c-command between a direct and indirect object NP (cf. Barss and Lasnik 1986), which would suggest that both NPs are structurally asymmetrical. Evidence for this involves the binding of an anaphor by its antecedent. For example in (28) the reciprocal pronoun *each other*, which is the indirect object, is bound by *the boys*, the direct object, and is asymmetrically c-commanded by it:

(28) a. I introduced [the boys] [to each other].
b. *I introduced [each other] [the boys].

In Kambera, such constructions do not exist. The concept of reciprocity, for instance, is not expressed by a reciprocal pronoun but by an adverb (*kawàra* 'both') in combination with the atelic, indefinite form of the applicative verb and a plural subject. An illustration is sentence (4) above and sentence (29) below. (The meaning of such a sentence may be ambiguous, as (29) shows.):

(29) Da- kawàra pangàndi **-ng** huratu.
3PN-both send -APP letter
'They both send letters/They send letters to each other/They send each other letters.'

[18] Human beings are counted with active relative clauses that contain the numeral as their predicate. These relative clauses are headed by the quantified nouns.

3.3. *Conclusion*

The facts discussed in this section lead to the following two conclusions: first, a direct object NP and an indirect object NP behave symmetrically with respect to relativization and (sub)extraction. More particularly, there is no evidence that the indirect object NP is part of a Prepositional Phrase while the direct object NP is 'bare', as Baker's P-incorporation analysis of applicative constructions supposes. Second, both object NPs seem to be Adjunct Islands.

3.4. *Explanation for the direct-indirect object symmetry*

Why is it that in Kambera the two object NPs in applicative constructions do not differ in their structural properties, whereas in many other languages they do? In this section I will discuss a possible explanation.

In the previous section, I suggested that in Kambera, NPs are probably adjuncts which are associated with pronominal clitics. This idea gives an account of and may be an explanation for the symmetrical behaviour of object NPs.

Kambera is a 'headmarking' non-configurational language, i.e. it is rich in pronominal marking on the head of the clause, the verb, and poor in Case marking on the NPs. Baker (1991) proposes that in such languages, overt NPs cannot appear in argument positions because the Case features of lexical items are assigned to the pronominal morphemes in S-structure.[19] The idea that NPs in a 'headmarking' non-configurational language like Kambera are adjuncts associated with the pronominal clitics is not new. As Baker (1991) notes, it is implicitly assumed in the terminology of many Amerindianists and has been worked out in detail by Jelinek (1984, 1988).

Kambera NPs have a different status than NPs in a language like English. Word order is rather free, NPs are often optional but may also occur in addition to the pronominal clitics that refer to them. All the 'core' arguments (subject, direct object and indirect object) may be marked on the verb by pronominal clitics. The NPs and pronominal clitics are not in complementary distribution and the NPs behave like Adjunct Islands. A Kambera verb together with the pronominal clitics, constitutes a complete clause in itself. Such a clause can be considered a 'nuclear' clause that fixes the grammatical relations. The additional NPs that may optionally occur in such a clause, do not carry any significant grammatical properties, because these are encoded in the pronominal clitics. If all grammatical information is already present in

[19] For lack of space, I will not pursue the consequences of this proposal here. For example, how the pronominals are related to the NPs, in what type of construction an NP does receive Case, why adjunct NPs are exempt from the Case filter, etc.

the nuclear clause, the rest of the sentence has a rather flat, non-configurational structure. Seen in this light it is no surprise that the direct and indirect object NPs in such sentences do not show structural asymmetries.

4. *Status of the applicative morpheme*

In this section the status of the applicative morpheme will be discussed. I will argue that the applicative morpheme is not an incorporated lexical head but that Kambera applicative verbs must be derived lexically.

As was mentioned in section 2 above, constructions like (30a) and (30b) are unexpected by the P-incorporation analysis:

(30) a. $[_V$ V + P] and $[_{PP}$ P [NP]] (complex verb + embedded NP)
b. $[_V$ V + P] and [*t* [@]] (complex verb + no NP)

In Kambera, these constructions do exist. An applicative verb can occur in one sentence with a PP that still contains a full, lexical Preposition. The following sentences are an illustration:[20]

(31) a. Da -ngàndi-**ng** lí mbotu [**la** angu -da patau] $_{PP}$.
3pN-bring-APP story heavy LOC friend -3pg human
'They-bring to [a heavy story] [to their fellow humans]: They bring a difficult message to their friends.'

b. [**Lai** nyuda] $_{PP}$ i Yohanis na- peka **-nja** hukung.
LOC they ART John 3sn-preach to -3pd law
'To them John he-preached to-them law: To them John preached (about) the law.'

If the applicative morpheme (*-ng*) were a (bound) Preposition or Particle, generated alongside the indirect object NP and incorporated in the Verb, one would not expect another Preposition (*la*) governing this indirect object NP. The fact that this is exactly the case in the sentences in (31), suggests that the

[20] In sentence (31a), which contains an applicative verb, the locative PP contains the applicative indirect object (i.e. the GOAL/BENEFICIARY argument of the verb *ngànding* 'bring to (someone)'). In (i) below the verb *ngàndi* 'bring (something)' is not applicative, and the PP contains a locative adjunct.

(i) Da -ngàndi ma-mbotu la angu -da patau
3pN-bring RM heavy LOC fellow-3pG human
'They bring something heavy to their friends.'

These facts suggest that the applicative morpheme is a verbal morpheme, whereas *la* is a preposition marking 'locative'. The two elements are not in complementary distribution, and their grammatical properties are not the same.

applicative morpheme is not the bound lexical head that is involved in a PI-analysis of applicative constructions.

In the second place, a Kambera verb may be applicative without having an explicit indirect object (GOAL/BENEFICIARY) argument, as illustrated in (10d) above. Examples of such a structure are the sentences (4) and (29) above, which have only a direct object (PATIENT/THEME) and no indirect object. Following the PI-analysis of these applicative verbs the 'Preposition' *-ng* should be considered 'intransitive' here, being generated without an NP. However, the same verb (cf. *pangànding* in (29)) can be used *with* an indirect object argument, as in:

(32) Na- pa-ngàndi **-nya** ndui.
3SN CAU-send -3SD money
'He sends him money'

The applicative morpheme in this sentence would have to be analysed as being transitive, whereas in (29) it is intransitive. This does not seem very plausible, especially because there is no independent evidence for the existence of intransitive Prepositions in Kambera.

A further characteristic of Kambera applicative constructions is that their semantic interpretations may not be fully predictable, as the following examples illustrate:

(33) a. Na- ndolak **-nya** na ana rara.
3SN- stand up for -3SD ART child red
'He-stands up for-her the baby: He stands up for the baby's benefit' (e.g. he stands up to walk a crying baby).

b. Na- mandapu **-nya** na tana yena.
3SN- sit on -3SD ART land this
'He sits on it, this land: He settles on this land.'

c. Na- katuda kawai [la ngia pa-katuda-mu]$_{PP}$.
3SN-sleep just now LOC place RC-sleep-2SG
'Just now he slept on your bed.' (bed is not affected)

d. Na- katuda-**nya**$_i$ kawai [na ngia pa-katuda-mu]$_{NPj}$.
3SN-sleep -3SD just now ART place RC-sleep-2SG
'Just now he slept on it, your bed.' (bed is completely affected)

In (33a), the indirect object is the BENEFICIARY, in sentence (33b) it is a LOCATION, whereas the contrast between (33c) and (33d) is between a LOCATION ([– AFFECTED]) and a [+ AFFECTED] GOAL. In (33) *ngia pakatuda* 'bed' is a locational *adjunct*, as can be seen by the fact that it is not cross-referenced with an object pronominal clitic. In (33) the applicative verb takes *ngia pakatuda* 'bed' as a [+ Affected] GOAL *argument*, which is expressed as the object

pronominal clitic *-nya*.[21] This semantic unpredictability suggest that applicative formation may be a lexical derivational process.

Another argument in favour of this lexical status of applicative formation, is that their derivation is not fully productive. For some unknown reason,[22] some verbs cannot be made applicative, compare sentence (34a) and (34b):

(34) a. Na- beli -nya la uma.
3SN- return for -3SD LOC home
'He returned home for it.' (e.g. to look for something forgotten).

b. *Na- tama -nya la uma.
3SN- enter for -3SD LOC house
'He entered the house for it.' (e.g. to look for something hidden).

The verbs *beli* 'return' and *tama* 'enter' are very similar verbs (both agentive and intransitive, both indicating motion and direction, etc.) Yet only one of them (*beli*) can be made applicative. In a syntactic account, applicative verb formation would have to be fully productive. That this is not the case suggests that applicative verb formation is not a syntactic but a lexical derivation.

As a final indication of the lexical derivational status of the applicative morpheme, consider the data in (1) above. According to these data, applicative formation is a category changing process, which suggests that it is lexical. Furthermore, the PI-analysis predicts that "applicative constructions should not be possible whenever the verb that hosts the P Incorporation is not a Case assigner" (Baker 1988:252). As the data given in (1) show, many Kambera applicative verbs are derived from a non-Case-assigning base, such as an intransitive verb or a noun. This is another indication that these verbs are not the result of *syntactic* derivation (PI) but are *lexically* derived.

5. *Conclusions*

The conclusions that can be drawn on the basis of the data discussed in this paper are as follows. Although the syntactic explanation for the valency change in applicative constructions is an elegant and restrictive account of the derivation of these verbs, it does not account for the Kambera facts.

The facts concerning relativization, wh-movement etc. of both the direct and the indirect objects of applicative constructions, are evidence that both of these object NPs are symmetrical in structural properties; more particularly,

[21] The semantic difference is comparable to English: 'load dirt into the truck' (*truck* is oblique) and 'load the truck with dirt' (*truck* is not oblique); and the objects of verbs prefixed with *be-* in Germanic languages.

[22] Note, however, that these are data elicited from one person, and have not yet been checked with the intuitions of other people.

the indirect object NP is not embedded in a PP as the PI-analysis supposes. An explanation for this may be that Kambera NPs are often adjuncts, while the pronominal clitics are the verbal arguments.

Kambera applicative verbs are not syntactically derived and the PI-analysis does not account for the Kambera facts. Structural and semantic evidence suggests that the applicative morpheme has a lexical derivational status.

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