

# THE NATA APPLIED DOUBLE OBJECT CONSTRUCTION: IMPLICATIONS FOR APPLICATIVE AND (A)SYMMETRICAL TYPOLOGIES\*

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## 1. Introduction

This paper examines double object constructions in Nata, a Bantu language spoken in Tanzania. The paper has two goals. First, I provide evidence that calls into question two existing assumptions: a) that a Bantu language is either "symmetrical" or "asymmetrical" (e.g. Bresnan and Moshi 1990) and b) that a language's symmetrical or asymmetrical status, particularly with respect to patterns of passivization and object-marking, is a function of the structure of its applicative construction (McGinnis 2001, Pykkänen 2002). The second goal is to propose a preliminary structure for the Nata applied double object construction (aDOC).<sup>1</sup> Specifically, I aim to account for the ability of the benefactive object (BEN) to passivize and be object-marked on the one hand, and the inability of the theme object (THEME) to perform these operations, on the other.<sup>2</sup>

The first goal is motivated by the following observations. The Nata applicative morpheme is "high", combining individuals and events (Pykkänen 2002). However, unlike some previous results (McGinnis 2001, 2008; cf. Jeong 2006), this fact does not correlate with "symmetrical" behaviour of the two objects: it is impossible to passivize the theme or object-mark the theme alone, a mark of "asymmetry".<sup>3</sup> Thus, high applicative structure does not necessarily

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<sup>1</sup> Nata also has DOCs formed from a small class of inherently ditransitive verbs such as *-h-* 'give'. These verbs select two objects without the addition of the applicative morpheme. In Nata, this class behaves slightly differently from the aDOC in that it seems to display freer word order of the benefactive and theme objects. Because of this important difference, inherent ditransitives are set aside.

<sup>2</sup> Because I restrict the current data to aDOCs involving a benefactive and a theme, I will use these terms instead of the less specific terms "indirect object" and "direct object".

<sup>3</sup> The current use of the term "symmetry" is intended to be non-technical. The following definition suffices to capture the intended meaning of the term as it is used here and in the body of literature to be referenced in this paper: "Objects A and B are behaving symmetrically if, for a given situation, a characteristic exhibited by Object A is also exhibited by Object B." The non-technical use of "(a)symmetry" is distinguished from its use as a defining feature of a language, as in "symmetrical object language" (e.g. Bresnan and Moshi 1990). In the literature, a "symmetrical object language" is a language characterized by a set of purportedly co-occurring properties, some of which refer to the



when the theme is animate), word order reversal can lead to a reversal of semantic roles (compare (6) and (7)).

- |     |  |                               |                               |
|-----|--|-------------------------------|-------------------------------|
| (4) | Masáto a-ka-yór-er-a<br>Masato SM1-PST-buy-APPL-fv<br>'Masato bought the teacher a gift'   | u-mu-aarimú<br>ppf-C1-teacher | ε-γέ-tuho<br>ppf-C7-gift      |
| (5) | #Masáto a-ka-yór-er-a<br>Masato SM1-PST-buy-APPL-fv<br>'#Masato bought a gift the teacher' | ε-γέ-tuho<br>ppf-C7-gift      | u-mu-aarimú<br>ppf-C1-teacher |
| (6) | η-ka-réet-er-a<br>1sgSM-PST-bring-APPL-fv<br>'I brought the lion a dog'                    | á-0-aka<br>ppf-C9-lion        | a-0-seesé<br>ppf-C9-dog       |
| (7) | η-ka-réet-er-a<br>1sgSM-PST-bring-APPL-fv<br>'I brought the dog a lion'                    | a-0-seesé<br>ppf-C9-dog       | á-0-aka<br>ppf-C9-lion        |

## 1.2 Word order reversal in the Nata aDOC

In some Bantu languages, such as Haya (Hyman and Duranti 1982), objects can appear in THEME-BEN order, with semantic role being apparently determined by animacy: the animate object is interpreted as the benefactive, regardless of linear order. (Ambiguity can result if both objects are animate [Hyman and Duranti 1982:225].) In fact, in particular contexts, interpretation by animacy can also be found in Nata (though this appears to be limited to cases of unequal animacy where there is less danger of misinterpretation). (8) and (9) demonstrate possible word order reversals.

It is not known exactly what circumstances license word order reversal in Nata. An investigation into this is left for future research, with the suggestion that information-structure, and perhaps other factors, play a role in what appears to be a pragmatically-conditioned operation. The particularly important role of contextual factors is well-illustrated by the following contrast: (4) and (5) were elicited without context and demonstrate a ban on word order reversal, while the virtually identical pair elicited with context ((8a) and (8b)) permit reversal. For present purposes, the point is that word order reversal is robustly attested and will need to be considered when proposing a structure for the Nata aDOC (see Section 4).

*Context:* It is the birthday of Sumuni, one of the teachers in the Linguistics department. Many of the students have bought him a gift. Before the party, I say to my friend: "Masato bought the teacher a book".

- (8) a. Masáto a-ka-γór-er-a u-mu-aarimú ε-γί-taβo  
 Masato SM1-PST-buy-APPL-fv ppf-C1-teacher ppf-C7-book  
 'Masato bought the teacher a book'
- b. Masáto a-ka-γór-er-a ε-γί-taβo u-mu-aarimú  
 Masato SM1-PST-buy-APPL-fv ppf-C7-book ppf-C1-teacher  
 'Masato bought the teacher a book'

*Context:* Joash and I have discovered a book entitled "How to teach anybody anything". We both agree it is the best book we have ever read, and every teacher should read it. We agree that any time one of us meets a teacher, we will buy that person the book. I run into Joash one day and say "Hey, I bought a teacher the book!"

- (9) a. η-ka-γór-er-a u-mw-aarimá ε-γί-taβo  
 1sgSM-PST-buy-APPL-fv ppf-C1-teacher ppf-C7-book  
 'I bought a teacher the book'
- b. η-ka-γór-er-a ε-γί-taβo u-mw-aarimá  
 1sgSM-PST-buy-APPL-fv ppf-C7-book ppf-C1-teacher  
 'I bought a teacher the book'

In Section 2, which draws on the "high"/"low" applicative typology of Pylkkänen (2002), I discuss the semantic function and corresponding structural position of the APPL morpheme. In Section 3, I show how Nata has qualities of both "symmetry" and "asymmetry". In Section 4, I note that the asymmetric properties of Nata co-exist with high applicative structure and I amend McGinnis' (2001) analysis to account for this fact. I then outline a derivation for the canonical order of the Nata aDOC and provide some remarks on non-canonical order. Section 5 concludes.

## 2. Argument Structure of APPL

In Section 1, I showed that APPL introduces the benefactive argument in a BEN-THEME aDOC. Pylkkänen (2002) claims that there are two ways in which this introduction can be accomplished. One possibility is that the APPL morpheme relates an individual to the event denoted by the VP; consequently, this APPL head is located above VP and is labeled "high". The other possibility is that the APPL morpheme relates two individuals in a possessor-possessee relationship, the benefactive and the theme. This type of APPL morpheme is located within VP and labeled "low". Pylkkänen provides three diagnostics that can be used to determine whether a particular applicative construction is high or low. These are applied to Nata below.

## 2.1 Diagnostic 1: Transitivity Restrictions

Pylkkänen (2002:23) states that "only high applicative heads should be able to combine with unergatives. Since a low applicative head denotes a relation between the direct and indirect object, it cannot appear in a structure that lacks a direct object." (10) shows the APPL morpheme combining with an unergative verb, *-yaar-* 'run', in Nata, suggesting that *-er-* is a high applicative morpheme.

- (10) ni-ha-yáar-er-a                      Maria  
1sgSM-PST-run-APPL-fv              Maria  
'I ran for Mary'

## 2.2 Diagnostic 2: Verb Semantics

Pylkkänen's second diagnostic references the different meanings of low vs. high applicatives. In low applicatives, there is a possessor-possessee relationship, meaning that low applicative morphemes do not combine with verbs that cannot denote transfer-of-possession. On the other hand, high applicatives merely require that someone benefit in some way from the VP event, so the verbs that combine with a high applicative morpheme are not restricted in the same way (Pylkkänen 2002:23). Consistent with the predictions for high applicatives, (11) and (12) demonstrate the APPL morpheme attaching to verbs that do not denote transfer of possession.

- (11) η-ka-rε-εr-a                      Waasato      a-0-aswe  
1sgSM-PST-eat-APPL-fv      Waasato      ppf-C9-fish  
'I ate the fish for Waasato'
- (12) η-ka-yéy-εr-a                      Waasato      0-ríi-béyu  
1sgSM-PST-carry-APPL-fv      Waasato      ppf-C5-bag  
'I carried the bag for Waasato'

## 2.3 Diagnostic 3: Depictive Secondary Predication

According to Pylkkänen's first two diagnostics, and assuming her two-way division of applicatives is correct, Nata has high applicatives—at least for the unergative and non-transfer-of-possession verbs required by the first two diagnostics. Because transfer-of-possession verbs (which are necessarily transitive) cannot be used in either test, the first two diagnostics have nothing to reveal about such verbs in any language. It is not the case that one can generalize the structure of all of a language's applicative constructions from the behaviour of its unergative and static verbs. After all, Pylkkänen herself claims that some languages, such as Japanese, demonstrate both low and high applicative constructions (2002:15). This is an important point, since the data I have collected contains mainly "transfer-of-possession" verbs (such as *-yor-* 'buy' and *-reet-* 'bring'). Therefore, the present analysis relies heavily on

Pykkänen's third diagnostic, which claims to tease apart high and low applicative constructions even with transfer-of-possession verbs (2002:31).

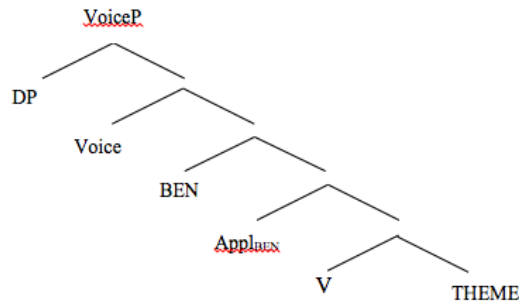
According to Pykkänen, in depictive secondary predication constructions, an adjective attributes a property to one of the arguments of the verb and "the state described by the adjective holds during the event described by the verb" (2002:27). (These are sentences such as *John ate the meat raw* in English [2002:26].) To derive this property of depictive adjectives compositionally, she argues that depictive phrases are composed of an adjective and a depictive head that links the state denoted by the adjective to an event (2002:28). The resulting type  $\langle e, \langle s, t \rangle \rangle$  phrase is predicted to be able to combine via predicate modification to other arguments of type  $\langle e, \langle s, t \rangle \rangle$ . In Pykkänen's analysis, these include high applied arguments and exclude low applied arguments (2002:31). Thus, a third diagnostic is as follows:

Depictive secondary predication: "If a language has an English type depictive secondary predicate, the depictive can modify an applied argument only if the applied argument is high." (Pykkänen 2002:31)

- (13) Masato a-ka-ret-er-a Nyaangi a-0-aswe anaangire  
 Masato SM1-PST-bring-APPL-fv Nyaangi ppf-C9-fish tired  
 'Masato brought Nyaangi<sub>i</sub> the fish when she<sub>i</sub> was tired'  
 LIT: Masato brought Nyaangi<sub>i</sub> the fish tired<sub>i</sub>

(13) demonstrates that Nata transfer-of-possession applicatives pass this test. Assuming Pykkänen's analysis is correct and applies universally (to languages with the relevant construction), this confirms that even Nata transfer-of-possession applicatives are high. A tree showing Pykkänen's high applicative structure is given in Fig. 1. In this structure, the benefactive c-commands the theme and not vice versa. In this capacity, the structure in Fig. 1 is consistent with established claims regarding the structure of DOCs cross-linguistically (Barss and Lasnik 1986, Marantz 1993). (Note that the structure is intended to simultaneously represent the semantics and (presumably underlying) syntax of such constructions [2002:30].)

Fig. 1: High Applicative (from Pykkänen [2002:19])



### 3. Object (A)symmetry

A large literature is devoted to uniformly explaining the co-occurrence of properties associated with "symmetrical" and "asymmetrical" object languages (Gary and Keenan 1977, Perlmutter and Postal 1983, Baker 1988, Kiparsky 1988, Bresnan and Moshi 1990, Alsina 1996, McGinnis 2001). As noted in footnote 3, the "symmetrical" behaviour of objects refers to cases where both objects in a DOC behave the same with regard to a particular operation, such as passivization or object-marking. The "asymmetrical" behaviour of objects refers to cases where only one object, the benefactive, is able to undergo such an operation. Importantly, it is claimed that such operations pattern together, i.e. a language with asymmetrical passivization will also have asymmetrical object-marking. A language is labeled "symmetrical" or "asymmetrical" according to how its objects behave in these and other processes<sup>4</sup> (e.g. Bresnan and Moshi 1990). For example, some authors, such as Riedel (2009) and Baker et al. (2012) (cf. Alsina 1996) associate the ability of either object to appear immediately adjacent to the verb with symmetrical object languages. Early explanations for the bundling of properties often involved inherent properties of a language's objects (Baker 1988, Bresnan and Moshi 1990). For example, Bresnan and Moshi (1990:172) propose the Asymmetrical Object Parameter, which has repercussions on what inherent specifications are permitted for each object within a given construction. According to these authors, the ability of an object to display "primary object properties" such as passivization follows from these specifications.

The current goal is not to classify Nata as "symmetrical" or "asymmetrical". Despite this, an examination of the language's behaviour with respect to these properties was undertaken in order to help reveal the relationship between the two objects and determine the extent to which previous analyses, such as Bresnan and Moshi's, could be extended to Nata. In (14), I apply Bresnan and Moshi's (1990) symmetry tests, as well as the verb-adjacency test (14a), to Nata. Table 1 summarizes the results.

- (14) a.     Either BEN or THEME can occur immediately adjacent to verb?  
          *Yes, in some circumstances:*  
          See (8a) vs. (8b), which illustrate both word orders, but compare  
          (4) vs. (5), which illustrate a restriction on THEME-BEN order.

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<sup>4</sup> To be precise, some properties associated with (a)symmetry do not, in themselves, visibly demonstrate (a)symmetrical behaviour in the non-technical sense. For example, Bresnan and Moshi (1990) claim that one of the properties of symmetrical object languages is the ability of two independently "symmetrical" properties to co-occur within one construction.

- b. Passivization of theme?  
*No:*  
 \*ε-yé-tuho yi-ka-yór-er-u u-mw-aarimú  
 ppf-C7-gift SM1-PST-buy-APPL-PASS ppf-C1-teacher  
 'The gift was bought for the teacher'
- c. Object-marking of theme alone?<sup>5</sup>  
*No:*  
 \*Masáto a-ya-ké-yor-er-a u-mw-aarimú  
 Masato SM1-PST-OM7-buy-APPL-fv ppf-C1-teacher  
 'Masato bought it for the teacher '
- d. Deletion of theme?  
*Yes:*  
 η-ka-ruy-er-a Joash  
 1sgSM-PST-cook-APPL-fv Joash  
 'I cooked for Joash'
- e. Co-occurrence of passivization and object-marking?  
*Yes:*  
 Masato a-ka-yé-yor-er-u  
 Masato SM1-PST-OM7-buy-APPL-PASS  
 'Masato was bought it'
- f. Co-occurrence of passivization and theme-deletion?  
*Yes:*  
 Sumuni a-ka-rúy-er-u  
 Sumuni SM1-PST-cook-APPL-PASS  
 Sumuni was cooked-for
- g. Co-occurrence of object-marking and theme deletion?  
*Yes:*  
 η-ka-mó-ruy-er-a  
 1sgSM-PST-OM1-cook-APPL-fv  
 'I cooked for him'

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<sup>5</sup> Otherwise put: Can a theme OM be the only OM in a verb complex?



Table 1: Symmetry tests, summary.

Property	Possible in Nata?	Language type prediction
Either object immediately adjacent to V?	Yes (pragmatically conditioned)	No prediction
Passivization of either object?	No	Asymm.
Object-marking of either object alone?	No	Asymm.
Deletion of either object?	Yes	Symm.
Co-occurrence of passivization and object-marking?	Yes	Symm.
Co-occurrence of object deletion and passivization?	Yes	Symm.
Co-occurrence of object deletion and object-marking?	Yes	Symm.

The symmetry tests reveal that Nata displays properties of both "symmetrical" and "asymmetrical" object languages, providing what seems to be a counterexample to the two-way typology.<sup>6</sup> Therefore, analyses such as that of Bresnan and Moshi (1990), wherein all the above properties follow from a "single parameter of variation" cannot, at least directly, be extended to Nata.

Since it is questionable whether these properties deserve a uniform explanation, for the remainder of the paper I will focus on the two properties that are arguably the most important: passivization and object-marking. These are the properties that are the most clearly characterizable as "symmetrical" (or not) and there is strong consensus among researchers that these two properties are central in defining a language as (a)symmetric. With respect to these properties, then, Nata demonstrates "asymmetric" behaviour of benefactive and theme. Only the benefactive can passivize and be object-marked alone.

#### 4. The Structure of the Nata aDOC

##### 4.1 (A)symmetry and Applicative Structure

Recently, structurally-based explanations in the minimalist program have been proposed to account for the bundling of (a)symmetrical properties (McGinnis 2001, Riedel 2009, Baker et al. 2012). Building on Pykkänen's (2002) high and low applicative structures, McGinnis (2001) argues that high APPL is a phase with an EPP-feature (Chomsky 1999). The one embedded object, the theme, can thus check this EPP feature and "escape" the phase. In this way, McGinnis derives symmetrical passivization and object-marking from high applicative structure. On the other hand, in low applicative constructions, *vP* is a

<sup>6</sup> Some earlier researchers predict such a finding, even questioning the very existence of symmetrical object languages (Rugemalira 1991).

phase with an EPP feature but low APPL is not. This means the benefactive can check phase-EPP features but, without a phasal escape hatch, locality constraints prevent the theme from doing so. This derives asymmetrical passivization and object-marking. McGinnis' analysis, then, relies crucially on the claim that high APPL is a phase, and predicts that high applicatives will demonstrate symmetrical behaviour of objects.

Although Nata ostensibly has high applicatives, it is *as*ymmetrical in exactly the processes that McGinnis predicts will be symmetrical: passivization and object-marking. This shows that high applicative structure is not necessarily correlated with the symmetrical behaviour of objects, an observation which has occasionally been noted by previous authors (e.g. McGinnis 2005, Jeong 2006). The consequence of this is that high APPL is not necessarily a phase in benefactive-theme aDOCs (which, in fact, mirrors a proposal made by McGinnis (2005) to capture a similar pattern in Haya locatives).

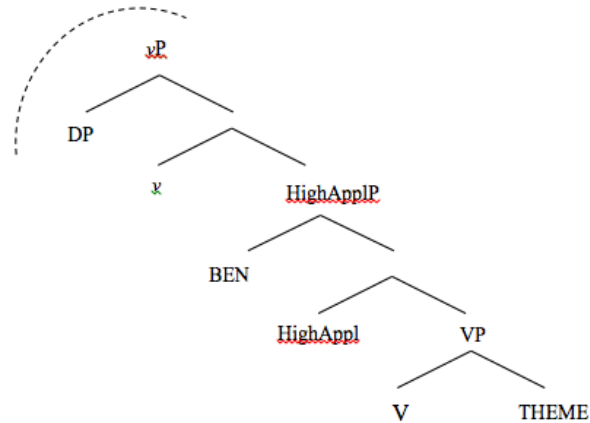
#### 4.2 Canonical Word Order: A Preliminary Analysis

Despite the fact that McGinnis' analysis does not correctly capture the Nata data, it does predict that passivization and object-marking will pattern together as a consequence of the objects' relative position in a structure. This is observed in the Nata data (see Table 1), suggesting a structural explanation is forthcoming. In fact, by reverting to a more basic assumption—that  $\nu$ P (and not high APPL) is the lowest phase (Chomsky 1999)—McGinnis' analysis can be made to capture the pattern displayed by Nata. The consequences of this are straightforward: the "privileged" behaviour of the benefactive is due to its higher position in the structure. In passivization, this object has access to the phase-EPP feature of  $\nu$ P. Locality constraints (e.g. Rizzi 1990), block the theme from such access. Object-marking of the theme is similarly blocked by the presence of the benefactive (whether object-marking is achieved via agreement or movement). Fig. 2 is McGinnis' version of Pylkkänen's tree, with the necessary alteration, namely, the removal of the high APPL phase boundary.<sup>7</sup> The alteration renders McGinnis' structure essentially identical to Pylkkänen's in Fig. 1.

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<sup>7</sup> In McGinnis (2001), high applicatives are referred to as "E-applicatives" and low applicatives are referred to as "I-applicatives".

Fig. 2: High applicative (E-applicative), with Appl phase removed (from McGinnis 2001:6)



In Fig. 3, I present a possible derivation of surface morpheme and word order in Nata. In Nata, the fv (final vowel) found in active sentences is in complementary distribution with *-u*, the passive morpheme. To account for this, I situate both in *v*. Successive cyclic head movement of the three predicate heads, APPL, V and fv/PASS, produces a complex predicate of the form V+APPL+fv/PASS. Once the predicate complex is established, the objects can be spoken in the order in which they appear (BEN-THEME).

Passivization is explained as resulting from the inability of the passive morpheme to assign case, which forces the raising of BEN. Theme passivization is prevented by locality constraints as described above.

I assume that OMs are generated in D (e.g. Dechaine and Wiltchko 2002) and raise to the predicate complex.<sup>8</sup> The closest OM to the verb (the benefactive) may raise to the predicate complex but locality constraints will prevent the lower (theme) OM from doing so, unless the BEN OM raises along with it. This ensures that the verb complex cannot bear a THEME OM without also bearing a BEN OM. Assuming all heads adjoin to the left during movement, this scenario also correctly predicts the attested order of OMs (OM<sup>THEME</sup> - OM<sup>BEN</sup>).

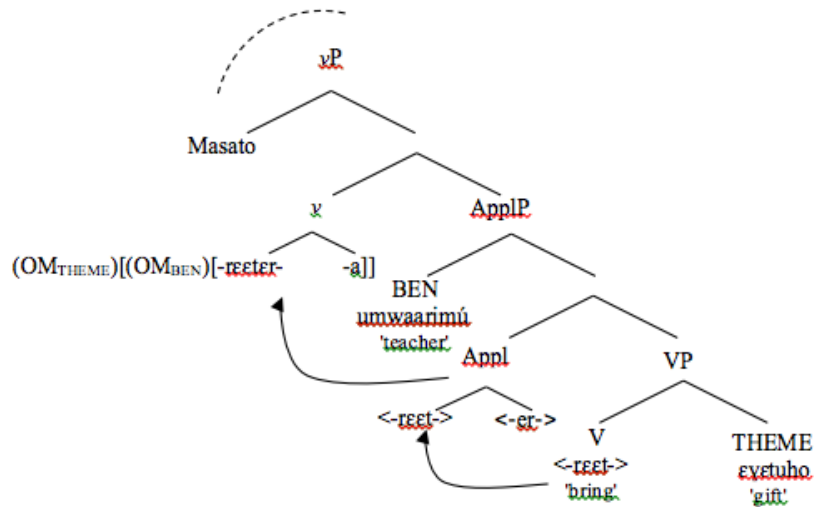
This description of the aDOC derivation makes the following additional prediction. In Nata, object-marking is associated with specificity and/or definiteness. Therefore, in contexts where the benefactive is definite and the

<sup>8</sup> or a relation such as *Agree*, which is restricted by similar locality constraints (Chomsky 2000). Though object-marking could be accomplished by a downwards probe instead of OM raising, the effect will be the same as the benefactive is always the closest goal. (The benefactive ends up as either the only OM in the verb complex, or the most deeply embedded.)

theme indefinite, we should expect the benefactive to be object-marked and the theme not to be. But in contexts where the benefactive is indefinite and the theme is definite, we should expect that that *neither* object will be object-marked because the benefactive does not require it and the theme will thus be "stuck" due to locality. This pattern is, in fact, what we find:

- (15)      η-ka-(mú)-yor-er-a                      u-mw-aarimú      ε-γί-ταβο  
 1sgSM-PST-(OM1)-buy-APPL-fv    ppf-C1-teacher    ppf-C7-book  
 'I bought the teacher a book'
- (16)      η-ka-γór-er-a                              u-mw-aarimá      ε-γί-ταβο  
 1sgSM-PST-buy-APPL-fv                      ppf-C1-teacher    ppf-C7-book  
 'I bought a teacher the book'

Fig. 3: Derivation of Canonical Word Order



### 4.3 Non-canonical Word Order

I showed in Section 1 that, under certain circumstances, it is possible to reverse the order of the objects without affecting their respective semantic roles. How do we account for these cases? Some preliminary remarks on non-canonical (THEME – BEN) order follow. I will show that non-canonical order is not base-generated but instead appears to be derived from canonical order.

If the theme were base-generated above the benefactive in non-canonical cases, we would expect the theme (and only the theme) to be able to passivize in

contexts where non-canonical order was licit. This is not what we find, however. (9b), repeated in (17) below, demonstrated a sentence with non-canonical word order (refer to the original example for context). (18) and (19), however, show that this sentence has the same passivization possibilities as a canonical sentence. That is, only BEN can passivize (18).

- (17) η-ka-γór-er-a                      ε-γί-ταβo                      u-mw-aarimú  
 1sgSM-PST-buy-APPL-fv            ppf-C7-book                    ppf-C1-teacher  
 'I bought a teacher the book'
- (18) u-mw-aarimá            a-ka-γór-er-u                      ε-γί-ταβo  
 ppf-C1-teacher            SM1-PST-buy-APPL-PASS            ppf-C7-book  
 'A teacher was bought the book'
- (19) \*ε-γί-ταβo                      γι-ka-γór-er-u                      u-mw-aarimú  
 ppf-C7-book                      SM7-PST-buy-APPL-PASS            ppf-C1-teacher  
 'The book was bought for a teacher'

As expected if passivization and object-marking bundle together, object-marking the theme alone is not possible with this word order, just as it was not possible in canonical order (compare (20) and (21)).

- (20) η-ka-γór-er-a                      ε-γί-ταβo                      u-mw-aarimú  
 1sgSM-PST-buy-APPL-fv            ppf-C7-book                    ppf-C1-teacher  
 'I bought the book for a teacher'
- (21) \*η-ga-ké-γor-er-a                      ε-γί-ταβo                      u-mw-aarimú  
 1sgSM-PST-OM7-buy-APPL-fv            ppf-C7-book                    ppf-C1-teacher  
 'I bought the book for a teacher'

These data suggest that the theme is not base-generated above the benefactive, as the theme never gains "privileged" access to operations such as passivization and object-marking. Instead, the benefactive alone retains the privileges of a higher object, suggesting BEN – THEME is the underlying word order and non-canonical word order is derived from this more primitive configuration.<sup>9</sup> It should be noted that this conclusion is the same one reached by Ngonyani and Githinji (2006) for Kikuyu, which also shows "symmetrical"

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<sup>9</sup> I leave to future work the type of movement involved in reversing the order of objects. Theme-raising or benefactive right-dislocation are some possibilities. However, note that future work will have to explain why in word order reversal, in contrast to passivization, locality constraints do not seem to block the theme from surfacing to the left of the benefactive. A promising avenue to pursue is that the movement involved in word order reversal is of a different type than that involved in passivization (e.g. PF-movement), a result of discourse-pragmatic factors. If this type of movement happens "late" in the derivation, this could also explain why (if word order reversal involves theme-raising), the theme cannot passivize *after* word order reversal.

behaviour in word order (though also, incidentally, in passivization and object-marking). A consequence of this analysis is that the so-called "symmetrical" nature of Nata word order is illusory. Non-canonical word order seems to be derived from—and is consistent with—an underlyingly asymmetric relationship between the two objects.

## 5. Conclusion

In this paper, I showed that Nata demonstrates properties of both "symmetrical" and "asymmetrical" object languages, which calls into question the two-way typology. Since Nata applicatives appear to be high, but passivization and object-marking are among its *asymmetric* properties, I also questioned the 1:1 mapping of high applicative structure to symmetrical passivization and object-marking (McGinnis 2001). I suggested that asymmetric passivization and object-marking are the result of the benefactive being located higher than the theme underlyingly and that, by not positing a High APPL phase, the observed asymmetries follow from locality constraints. I showed that, under some circumstances, a reversal of word order is possible without causing semantic roles to switch. Although it is not known what factors license word order reversal, the same patterns of passivization and object-marking held in THEME – BEN order, suggesting this word order is derived from underlying BEN – THEME order.

Future work will benefit from the use of a wider variety of applicative verbs and tests beyond the two I have focused upon here. It will be important to discover the motivation behind word order reversal and, equally, what prevents this from occurring all the time. Information-structure and economy are proposed to play an important role here: these will be the topics of work in the future. Finally, although the role of animacy was not discussed in detail in this paper, the Nata aDOC is affected by this hierarchy. This paper focused on structural motivations for asymmetrical behaviour, but future work examining the interaction of animacy, definiteness and information-structure will provide insight into how the inherent qualities of objects, and the objects' roles in discourse, motivate certain structures over others to begin with.

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