Comparing APPLs and Oranges: 
The Syntax of Shona Applicatives

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1. Introduction

In Shona (Zimbabwe: Bantu “Zone S”), the APPLICATIVE suffix \(-ir/-er\) increases the valency of the verb by introducing an APPLIED OBJECT (AO), as in (1) and (2).\(^2\)

(1) \(Ndàkábiká mànhàngà.\)
\(nd-aka-bik-a ma-nhanga\)
\(1\-PST\-cook\-FV CL6\-pumpkin\)
‘I cooked pumpkins.’

(2) \(Ndàkábikárá Shìngí mànhàngà.\)
\(nd-aka-bik-\text{-ir-a} S. ma-nhanga\)
\(1\-PST\-cook\-APPL\-FV S. CL6\-pumpkin\)
‘I cooked pumpkins for Shingi.’

In (1), the verb \(bík\) ‘cook’ is not suffixed with an applicative, and the predicate is monotransitive, the only object being a theme DP \(mànhàngà\) ‘pumpkins.’ In contrast, in (2) the applicative suffix \(-ir\) is added to the same verb, and the predicate is ditransitive, licensing a benefactive DP \(Shìngí\), as addition to the theme.

In addition to beneficiaries, applies objects may bear other thematic roles, such as location and goal. Examples of these are given in (3) and (4).

(3) \(Ndàkábikárá mànhàngà mùmbá.\)
\(nd-aka-bik-\text{-ir-a} ma-nhanga mu-mba\)
\(1\-PST\-cook\-APPL\-FV CL6\-pumpkin CL18\-house\)
‘I cooked pumpkins in the house.’

(4) \(Ndàkákándírù Shìngí bhórà.\)
\(nd-aka-kand-\text{-ir-a} S \Ø\-bhora\)
\(1\-PST\-throw\-APPL\-FV S CL5\-ball\)
‘I threw Shingi the ball.’

The goal of this paper is to describe and account for asymmetries between locative versus other applied objects in Shona. As will be explicated in greater detail, locative AOs exhibit different behaviour than other AOs with regards to word order and their behaviour in causative constructions. I

\(^{1}\) All data are from the author’s fieldwork with a native speaker of the Karanga dialect. Many thanks to Calisto Mudzingwa for his patience in sharing his language with me.

\(^{2}\) Alternations in the form of the applicative suffix are conditioned by vowel harmony (Beckman 1997).

\(^{3}\) Abbreviations: 1,2,3 = 1st, 2nd, 3rd person; AO = applied object; ACC(usative); APPL(licative); AUX(iliary verb); BEN(efactive); CAUS(ative); CL(ass)1-21; DO = direct object; FV = final vowel; HAB(ittual); LOC(ative); NOM(inative); OBJ(ect); POSS(essive); PST = past tense; SUBJ(ect).
argue that the asymmetries observed with applied objects can be accounted for in terms of accusative case checking.

This paper is structured as follows. In §2, I describe the asymmetries observed with different thematic categories of applied objects, and in §3, I present my analysis of said asymmetries. §4 concludes, with comments on the typological implications of my analysis.

2. Objects Asymmetries

2.1. Word Order and C-Command

Locative applied objects behave differently from other applied objects with respect to word order and c-command. Beneficiaries and goals are required to precede the direct object, whereas locative applied objects must follow it, as shown in (5) through (7).

(5) a. Ndàkábi kírá Shìngí kékè.
   nd-aka-bik-ir-a  S  Ø-keke
   1-PST-cook-APPL-FV S  CL5-cake
   ‘I baked Shingi a cake.’
   V-AO-DO

b. ?Ndàkábi kírá kékè Shìngí.
   ‘I baked Shingi for the cake’
   cannot mean: ‘I baked a cake for Shingi.’
   *V-DO-AO

(6) a. Ndàkákándírà Shìngí bhórà.
   nd-aka-kand-ir-a  S  Ø-bhora
   1-PST-throw-APPL-FV S  CL5-ball
   ‘I threw Shingi the ball.’
   V-AO-DO

b. ?Ndàkákándírà bhórà Shìngí.
   ‘I threw Shingi to the ball.’
   cannot mean: ‘I threw Shingi the ball.’
   *V-DO-AO

(7) a. Ndàkábi kírá mànǹgà mùmbá.
   nd-aka-bik-ir-a  ma-nhanga  mu-mba
   1-PST-cook-APPL-FV CL6-pumpkin CL18-house
   ‘I cooked pumpkins in the house.’
   V-DO-LocAO

b. *Ndàkábi kírá mùmbá mànǹgà.
   *V-LocAO-DO

In these examples, linear order reflects structural relations; the first object in the linear string c-commands the second. Thus, when the applied object precedes the direct object, it is structurally superior, but when it follows it (as is the case with locative applied objects), the direct object is superior. The c-command relations between applied objects and direct objects are demonstrated with variable binding data.3

(8) a. Shìngí ìkábi kírá mukómánà wógàwógà kùdyà kwàkè.
   S  aka-bik-ir-a mu-komanawogawoga ku-dya kwa-ke
   S  PST-cook-APPL-FV CL1-boy every CL15-meal 3-POSS
   ‘Shingi cooked every,boy his, dinner.’
   (BenAO binds DO)

3 Other tests of c-command, such as quantifier scope and superiority, are less reliable than the variable binding tests, due to extraneous factors such as (covert) quantifier raising and wh-in situ.
b. Shingi àkábíkírá ñé kùdyà kwámu-kómáná wógáwògà.
   S  aka-bik-ir-a iye ku-dya kwa-mu-komana wogawoga
   PST-cook-APPL-FV 3SG CL15-meal POSS-CL1-boy every
‘Shingi cooked for him every boy’s dinner.’ (e.g. cooked on behalf of)
(DO cannot bind BenAO)

(9) a. Ndákábíkírá kùdyà kwámu-kómáná wógáwògà kùmbá kwáké.
   nd-aka-bik-ir-a ku-dya kwa-mu-komana wogawoga ku-mba kwa-ke
   1-PST-cook-APPL-FV CL15-meal POSS-CL1-boy every CL17-house POSS-3
‘I cooked every boy’s dinner at his house.’
(DO binds LocAO)

b. Ndákábíkírá kùdyà kwáké kùmbá kwámu-kómáná wógáwògà.
   nd-aka-bik-ir-a ku-dya kwa-ke ku-mba kwa-mu-komana wogawoga
   1-PST-cook-APPL-FV CL15-meal POSS-3 CL17-house POSS-CL1-boy every
‘I cooked his dinner at every boy’s house.’
(LocAO cannot bind DO)

In (8), it is observed that, when the applied object is a beneficiary, it c-commands the direct object, but not vice versa. Conversely, in (9), when the applied object is a location, the direct object c-commands the applied object, but not vice versa.

2.2. Co-occurrence Restrictions on Applied Objects and Causees

Like the applicative –ir, causative –is increases the valency of the verb by adding an additional argument, a causee, to the predicate.4

(10) a. Shingi àkábikà mànhàngà
   S. aka-bik-a ma-nhanga
   S. PST-cook-APPL CL6-pumpkin
‘Shingi cooked the pumpkins’

b. Shingi àkábikísá Mùfáró mànhàngà.
   S. aka-bik-is-a M. ma-nhanga
   S. PST-cook-CAUS-FV M. CL6-pumpkin
‘Shingi made Mufaro cook the pumpkins.’

Because both the applicative and the causative extensions add an extra to the predicate, we might predict that when the two co-occur, two extra arguments, an applied object and a causee, would be introduced. In fact, this prediction is borne out only for locative applied objects.

(11) Ndákábikísirá Shingí mànhàngà múmbá.
   nd-aka-bik-is-ir-a S. ma-nhanga mu-mba
   1-PST-cook-CAUS-APPL-FV S CL6-pumpkin CL18-house
‘I made Shingi cook the pumpkins in the house.’

In (11), both the applicative and the causative extensions appear on the verb and, as expected, both an applied object, locative múmbá ‘in the house,’ and a causee, Shingí, are introduced. Contrast (11) with (12), in which the applicative introduces a beneficiary applied object:

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4 In addition to the productive –is causative extension, causative predicates can be formed via suppletion with a small set of roots (Brauner 1995: 56). It is yet unclear whether the suffixal and suppletive causatives exhibit syntactic and/or semantic differences.
(12a) *Ndàkábikísírá Shìngí Mùfáró kékè.
nd-aka-bik-is-ir-a S.  M.  Ø-keke
1-PST-cook-CAUS-APPL-FV S.  M.  CL5-cake
intended: ‘I made Shingi bake Mufaro a cake.’
or: ‘I made Mufaro bake Shingi a cake.’

(12b) *Ndàkábikísírá Shìngí kékè Mùfáró.
nd-aka-bik-is-ir-a S.  Ø-keke  M.
1-PST-cook-CAUS-APPL-FV S.  CL5-cake  M.
‘I made Shingi bake a cake for Mufaro.’

(12c) Ndàkábikísírá Mùfáró kékè.
nd-aka-bik-is-ir-a M.  Ø-keke
1-PST-cook-CAUS-APPL-FV M.  CL5-cake
‘I made someone bake Mufaro a cake.’
cannot mean: ‘I made Mufaro bake a cake for someone.’

(12a) and (12b) demonstrate that, unlike locative applied objects, benefactive applied objects cannot co-occur with a causee, regardless of word order. This generalization holds for goal applied objects, as well. The example in (12c), in which the causee is omitted, is the only grammatical option for combining an applicative and a causative. In sum, applied objects and causees cannot co-occur, unless the applied object is locative.

2.3. Summary of Object Asymmetries

I have shown that there are two ways in which locative applied objects pattern differently than other applied objects. The results are summarized in (13).

(13)

<table>
<thead>
<tr>
<th></th>
<th>Locative AOs</th>
<th>Other AOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>precede / c-command DO</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>can co-occur with causee</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

3. Accounting for AO Asymmetries

In this section, I present an analysis of the asymmetries observed between locative and other applied objects. In a nutshell, my proposal is that, in the general case, applied objects check accusative case, but locative applied objects cannot check accusative case.

I walk through the analysis in the following steps. First, in §3.1, I detail my assumptions regarding accusative case checking, and then in §3.2, I present arguments that (non-locative) applied objects check accusative case. In §3.3, I argue that locative applied objects are assigned locative case, and as such, are ineligible for accusative case checking. Finally, in §3.4, I demonstrate how my analysis can account for the asymmetry observed in §2.2, that locative but not other applied objects can co-occur with a causee.

3.1. Structural Case

Abstract case is a theoretical construct that allows us to understand the distribution of nominals in a clause. Following Chomsky (1981, 1986), I assume that there are two different types of case: structural case, and non-structural (e.g. lexical and/or inherent) case. Structural case distinguishes between the main grammatical relations in the clause, the subject and the object. Non-structural case,

5There is no morphological realization of structural case in Shona. The so-called “subject” and “object” agreement morphology on the verb does not straightforwardly map to nominative and accusative case, but rather to information structural categories of topic and focus (Bliss and Storoshenko 2009).
on the other hand, may be idiosyncratically assigned by certain lexical heads (e.g. verbs or prepositions) or may be inherently associated with particular theta positions. Following Woolford (2006), I refer to the former as LEXICAL CASE, and the latter as INHERENT CASE. I assume that for a nominal to be licensed, it must receive structural, lexical, or inherent case.

Regarding structural case checking, I adopt the basic premises of the Minimalist Program (Chomsky 1995, 2001). Under this framework, all movement is feature-driven; a probe bearing an uninterpretable feature triggers movement of a goal bearing a matching interpretable feature for purposes of feature-checking. With respect to case features, the probe seeks the closest nominal without case, and values that nominal’s case feature in a local (Specifier-Head) relationship. For example, let us assume that T checks nominative case (Chomsky 1995). In a typical active clause, the external argument is the closest nominal to T, and can therefore move to Spec, TP for nominative case checking. This is schematized in (14).6

6 I have adopted Adger’s (2003) formalism of representing moved constituents with angled brackets < >. However, for ease of understanding, I also use arrows to indicate what has moved where.

Following Adger (2003), I assume that accusative case is checked in v. In languages like English, accusative case is checked at a distance, and does not require overt movement of the direct object for case-checking. However, let us assume that in Shona, accusative case checking requires a local relationship between the probe and the goal. In a typical transitive clause (without an applicative), the direct object moves to spec, vP to check accusative case, as shown in (15).

In addition to case-driven movement of the subject and object, I assume that the verb in Shona undergoes overt V-to-T movement in order to account for the S-V-O word order. V-to-T movement has been independently motivated for Shona as well as closely related Bantu languages, such as Sesotho and Nguni (Demuth and Harford 1999; Sabel and Zeller 2006).

Taken together, the three types of movement can be schematized as in (16) for the clause Shìngí àkábíkà mànhàngà ‘Shingi cooked pumpkins.’7

7 General constraints on movement ensure that V first adjoins with v, and then v+V adjoins to T. I assume this to be an accurate characterization of V-to-T movement, but in the schematization in (16), I have not shown this intermediate step, for reasons of simplicity.
As shown in (16), the three types of movement result in a surface string with SVO word order.

3.2. (Non-Locative) Applied Objects Check Accusative Case

Following Pylkkänen (2008), I assume that applicatives occupy a functional head between v and V, licensing an AO in its specifier position. Thus, when an applicative is added to the derivation, the applied object it introduces intervenes between probe (v) and the direct object. As such, the applied object is the closest DP that can check accusative case. Because the AO is the closest goal to the probe, it moves to Spec, vP to check accusative case. This is shown in (17).

In the tree in (17), the AO checks accusative case, and the DO remains in its VP-internal position. Following Baker (1996) (and others), I assume that in double object constructions, the direct object is assigned inherent case by virtue of its theta-position. Inherent case, in this context, is a last resort, a way of assigning case to the direct object when it cannot check structural case.

3.3. Locative AOs Do Not Check Accusative Case

Let us turn now to the locative applied objects. Like other AOs, the locative AO intervenes between the accusative case probe (v) and the direct object. However, I propose that, unlike other AOs, the locative AO is ineligible for accusative case checking because it is assigned lexical case.

Lexical case can be assigned by particular lexical heads (such as verbs or prepositions) to internal arguments (Woolford 2006). I propose that, in Shona, the noun class prefixes that are used with locative applied objects function as prepositions to assign lexical case to the applied object.

Of the 21 noun class prefixes in Shona, three are specifically locational: pa- (class 16), ku- (17), and mu- (18). The locative class prefixes are unique amongst the class prefixes in their requirement to co-occur with other (non-locative) prefixes.
‘Shingi bought fruit at the market.’

‘The baboons sat in the trees.’

In (18) and (19), the locative class prefix precedes another class prefix. Based on data such as these, Brauner (1995: 27) refers to pa-, ku-, and mu- as PRE PREFIXES. Less transparent are the examples we have seen thus far with the locative applied object mumbá ‘in the house.’ In fact, mbá ‘house’ belongs to Class 9, which is marked with a zero prefix. Accordingly, locative noun phrases such as mumbá can also be viewed as being doubly marked, by the locative mu- prefix and the null class 9 prefix.

The fact that the locative prefixes must co-occur with other class prefixes suggests that the two do not form a natural class. I assume that, in the general case, the noun class prefixes are merged within the DP. The locative prefixes, on the other hand, appear to be merged higher, and as such, they are in the position to assign lexical case to the NP, as depicted in (21).

Because the locative AO is assigned lexical (locative) case, it is ineligible for accusative case checking. Furthermore, due to its ineligibility, it does not block the direct object from moving to Spec, vP to check accusative case. The result of this movement is the observed V-DO-LocAO word order discussed in §2.1.

In (22), the direct object moves from its VP-internal position to a position above the locative AO. Additionally, as in (16), the subject moves to Spec, TP, and V-to-T movement occurs. The resulting
word order is the observed S-V-DO-LocAO (e.g. Shingi àkábíkírà mànhàngà múmbà, ‘Shingi cooked pumpkins in the house’).

3.4. Explaining the AO+Causee Asymmetry

Recall from §2.2 that when the applicative and the causative co-occur, the causee is necessarily omitted, unless the applied object is locative.

(23) a. Ndàkábíkísírá Shìngí mànhàngà.
    nd-aka-bik-is-ir-a S ma-nhanga
    ‘I made someone cook pumpkins for Shingi.’

b. *Ndàkábíkísírá Shìngí Mùfáró mànhàngà.
    ‘I made Shingi cook Mufaro pumpkins.’

(24) Ndàkábíkísírá Shìngí mànhàngà múmbà.
    nd-aka-bik-is-ir-a S ma-nhanga mu-0-mba
    ‘I made Shingi cook pumpkins in the house.’

I assume that, like applicatives, causatives are functional heads that introduce an argument in Specifier position. Further, because the causative suffix is closer to the verb root than the applicative suffix, and following Pylkkänen’s (2008) analysis of Chichewa causatives, I assume that the causative head is merged below the applicative, as in (25).

(25) vP
    Subject
    v
    v’
    ApplP
    v
    AO
    Appl
    Appl’
    CausP
    Caus
    Caus’
    VP
    V
    DO

The argument introduced in the causative phrase (the causee) requires case, and the closest probe is v. When there is an applicative, the applied object it introduces intervenes between the causee and v, potentially blocking the causee from moving to spec, vP to check accusative case. The proposed analysis of case-checking outlined in the preceding sections predicts all but locative applied objects to block the causee from checking accusative case. When the applied object checks accusative case, the

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8 As far as I can tell, there is no reason to believe that the causee can receive either lexical or inherent case. Unlike the locative applicative, no lexical item(s) (such as ‘causative’ class markers or prepositional elements) appear with causees to assign lexical case. Further, Spec, CausP is not a theta-position (Pylkkänen 2008), and as such, inherent case cannot be assigned in this position. Because it receives neither lexical nor inherent case, I assume the causee must check structural case.
causee cannot get case from \( v \). Without case, the causee is not licensed, and cannot be expressed overtly.⁹

Now consider sentences like (24), which have both a locative applied object and a causee. In §3.3, I proposed that locative applied objects are assigned lexical case by the locative class prefixes. Because they are assigned lexical case, the locative applied objects are ineligible for accusative case-checking, and do not block the causee from moving to Spec, \( vP \) to check accusative case. This is diagrammed in (26).

One residual puzzle with this derivation is the linear ordering of the applied object and the direct object. The derivation in (26) predicts that the locative applied object should precede the direct object, but in fact, the opposite word order is shown in (24). Although further investigation is required, a preliminary hypothesis is the linear order in (24) is due to extra-syntactic constraints, perhaps related to information structure or the like. Unlike the definitively ungrammatical word orders discussed in §2.1, the opposite word order for (24), V-AO-DO, is marginally acceptable:

\[
\text{(27) } \text{?Ndàkábíkísírá } \text{Shìngí } \text{mùmbà. } \text{mànighthouse} \\
\text{1-PST-cook-CAUS-APPL-FV } \text{S } \text{CL18-CL9-house } \text{CL6-pumpkin} \\
\text{‘I made Shingi cook pumpkins in the house.’}
\]

That this word order is not definitively ungrammatical suggests that linearization in these examples may not be strictly the result of structural relations. I leave this as a question for future research.

### 4. Conclusion

In summary, I have presented an analysis of applicatives in Shona that accounts for asymmetries in the types of applied objects under a model of case-checking. I have argued that applied objects check accusative case in \( v \), but locative applied objects are ineligible for case checking because they are assigned lexical (locative) case by the locative noun class prefixes.

To conclude, I would like to comment on the typological implications of my proposal, with respect to the widely discussed distinction in Bantu between symmetrical and asymmetrical languages. Symmetrical languages are those in which the applied object patterns syntactically like a direct object,

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⁹ At this point, it is yet unclear whether or if a null element (such as \( pro \)) occupies Spec, CausP. In future research, it would be useful to determine whether the implied causee in sentences such as (26a) can have a definite interpretation or not. If it can, this may indicate that a null \( pro \) occupies Spec, CausP.
whereas asymmetrical languages are those in which the applied object is syntactically distinct from the direct object (Bresnan and Moshi 1990; Alsina and Mchombo 1993).

Under the typical diagnostics, Shona is described as a symmetrical language, because both the applied object and the direct object can passivize and cliticize to the verb. However, under the analysis developed here, Shona is an asymmetrical language, insofar as either but not both the applied object and the direct object can check structural case on a single head, \( v \). If this analysis is correct, then the apparent symmetry in Shona cannot be attributed to case, but it must be related to other factors. Indeed, passivization in Shona has been shown to be a type of A’-movement, involving topicalization (Bliss and Storoshenko 2008). Further, I hypothesize that cliticization is related to focus (see Ndayiragije 1999 for a similar analysis for Kirundi, a related Bantu language). Thus, symmetry in Shona is not case-related, but rather due to information structure.

Extending this to other Bantu languages, I predict that apparent symmetry in Bantu is not attributable to case but other factors, such as information structure. This proposal is desirable on a larger cross-linguistic scale, because Bantu languages are notable exceptions to universal tendencies against symmetry (e.g. the Person-Case Constraint, Bonet 1991). If Bantu symmetry is found to be related to information structure, then Bantu is no longer exceptional in this regard.

References


