

THE MORPHOSYNTAX OF COMPLEX VERBAL EXPRESSIONS IN THE HORN
OF AFRICA

by

TOMOYUKI YABE

A dissertation submitted to the Graduate Faculty in Linguistics in partial
fulfillment of the requirements for the degree of Doctor in Philosophy,
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Abstract

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Adviser: Professor Marcel den Dikken

The present dissertation is a study of the morphosyntax of complex verbal expressions in Amharic, Afar and Oromo. The complex verbal expressions discussed in these languages are morphological transitive, causative and applicative expressions. These expressions involve a morpheme or morphemes that mark the derivation of the expressions. The complex verbal expressions in these languages also display interesting morphological variations. These variations are delivered by the expected and unexpected distributions of the derivational morphemes. The main focus of this dissertation is to investigate such unexpected distributional patterns of the derivational morphemes involved in the complex verbal expressions in these languages. This dissertation studies and analyzes the morphologies of these expressions from a perspective based on a theory of morphology, Distributed Morphology. I adopt two basic ideas from the theory: (i) the phonological realization of a morpheme is after spell-out; (ii) the selection of a phonological exponent for a functional element is determined by the morpho-syntactic environment. This dissertation claims that the derivational morphemes that appear in the morphological transitive/causative and

applicative constructions are functional elements: v^* in the morphological transitive/causative constructions and p in the applicative constructions. The presence of morphological variations of these constructions are delivered by the fact that their derivational morphemes have a set of different phonological exponents. The selection of exponents for these morphemes is determined in the morpho-syntactic environment in which the derivational morphemes are placed.

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5	Conclusion	137
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List of Abbreviations

	-
1,2,3	- person
Acc	- accusative
Appl	- applicative
Asp	- aspect
Caus	- causative
Def	- definite
DO	- direct object
F	- feminine
M	- masculine
Nom	- nominative
Ob/O	- object
Pl	- plural
Pst	- past
Psv	- passive
Prs	- present
Prt	- particle
S	- singular
Sub	- subject
Trs	- transitive
Uerg	- unergative
Unacc	- unaccusative

Chapter 1

Introduction

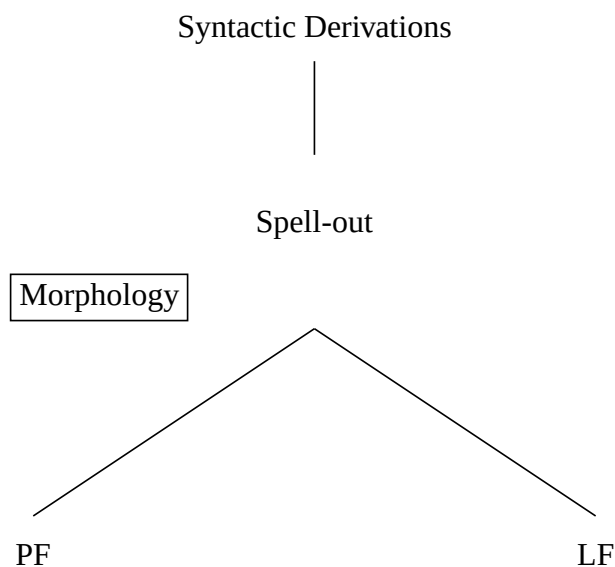
1.1 The languages and their verbal expressions under discussion in the dissertation

The present dissertation is a study of the morphosyntax of complex verbal expressions in languages that are spoken in the Horn of Africa, a region that would roughly cover Djibouti, Ethiopia, Eritria and Somalia. The languages discussed in this dissertation belong to either the Ethiopian Semitic (Ethio-Semitic) or Cushitic group. The complex verbal expressions discussed in these languages are transitive, causative (cf. Chapter 2), and applicative expressions (cf. Chapter 4). These expressions that I discuss often involve a morpheme or morphemes that mark the derivation of the expressions. The dissertation studies and analyzes the morphologies of these expressions that appear or do not appear in these expressions and their related syntactic properties from a perspective based on a theory of morphology, Distributed Morphology, that argues for the *Late Insertion* of phonological contents into a sentence. The morphology is fed accordingly to the output of the syntactic derivation.

1.2 Theoretical framework

The dissertation assumes the structure of the grammar that is proposed by Distributed Morphology (cf. Halle and Marantz 1993, Marantz 1997, Harley and Noyer 1998 and related works). The Morphology interprets the output of syntactic derivations: the phonological realizations of words and morphemes await *spell-out*, the completion of the syntactic composition. Syntactic derivations are derived by abstract functional features and Roots, category neutral and open class vocabulary items. These elements do not have phonological content during the syntactic derivation. It is only after spell-out that they receive phonological content. This notion is called *Late Insertion* and the design of grammar is depicted as in (1).

(1) The Grammar



The abstract features can be organized into a bundle and the bundle functions as a terminal node of a functional head in the syntax. For example, the plural feature for nominal roots, [+pl], can be part of a bundle that functions as the terminal node for the Number projection in the DP syntax.

A functional morpheme can be realized with a different phonological exponent depending on the morpho-syntactic environment in which the functional morpheme is placed. The English Number morpheme can be phonologically realized variously depending on the noun root it is merged with. An approach based on Distributed Morphology would explain that, after spell-out, an appropriate phonetic exponent is selected from the set of candidate exponents for the plural morpheme in English, e.g., *-s*, *-en*, $\emptyset$ etc. The selection of an exponent is made according to its syntactic environment. For the case of the English Number morpheme with [+plural], the selection of a phonological exponent is determined by the root it embeds, as depicted in (2).

(2) Spell-out of English Plural morpheme

...

Number[+pl] $\leftrightarrow$ *-s*/ ___ ($\sqrt{\text{BOOK}}$ -Pl, $\sqrt{\text{CAT}}$ -Pl ...)

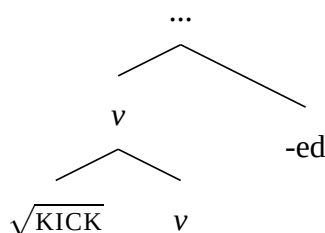
Number[+pl] $\leftrightarrow$ *-en*/ ___ ($\sqrt{\text{OX}}$ -Pl ...)

Number[+pl] $\leftrightarrow$ $\emptyset$ / ___ ($\sqrt{\text{SHEEP}}$ -Pl, $\sqrt{\text{FISH}}$ -Pl ...)

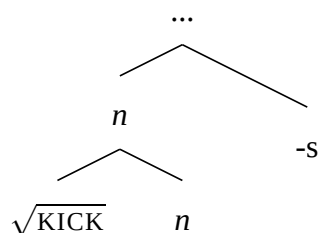
...

Distributed Morphology holds that Roots are category neutral. Roots are category-defined in the syntax by merging with a category-setting functional head, *v*, *n*, *p*, and etc. For example, an English Root, $\sqrt{\text{KICK}}$ gets its category determined by a category-setting functional head that it merges with in syntax, as in (3).

(3) a. $\sqrt{\text{KICK}}$ as a verb



b. $\sqrt{\text{KICK}}$ as a noun



When it is merged with *n*, it becomes a nominal expression. When it merges with *v*, it becomes a verbal expression.

1.3 Overview of the dissertation

1.3.1 Chapter 2

In Chapter 2, the distributions of derivational morphemes in the transitive and causative expressions from Ethio-Semitic Amharic and East Highland Cushitic Afar and Oromo are investigated and analyzed with respect to the thematic structure of the verbal stem to which the derivational morphemes are affixed.

In the two languages from Cushitic, Afar and Oromo, a suffix, *-s*, occurs as a transitive and a causative morpheme in the verbal complex. However, the distributions of *-s* as a transitive morpheme have a restricted pattern. It does not occur with a certain type of transitive verbs (cf. the b-examples in 4b&5b,d).

(4) Afar (Hayward 1976a: 323-324)

- a. hakiim idaltu ur-(u)s-eh yen
doctor old man got.well-Trs Pst-Sub.3MS
'The doctor had cured the old man'
- b. humar xaagid sel-e
'umar matter finish-Pst.3MS
'Umar finished the buisiness'

(5) Oromo

- a. tulluu-n bišaan damf-(i)s-e
Tulluu-Nom water boil-Trs-Pst.3MS
'Tulluu boiled the water' (Baye Yimam 1986: 129)
- b. terfaa-n muka gog-s-e
Terfa-Nom wood dry-Trs-Pst.3MS
'Terfa dried the wood'(Lloret 1987: 141)

- c. terfaa-n aannan dug-e
Terfa-Nom milk drink-Pst.3MS
'Terfa drank the milk' (Baye Yimam 1986: 486)
- d. terfaa-n fiig-e
Terfa-Nom run-Pst.3MS
'Terfa ran' (Dubinsky et al. 1988: 486)

However, when the causative *-s* is applied, the transitive *-s* gets realized throughout, as shown in (6).

(6) a. Afar

anu humar xaagid sel-*s*(ii)*s*-e
'I umar matter finish-Trs-Caus-Pst.1S
'I caused Umar to finished the buisiness'

b. Oromo

terfaa-n gamteesaa aannan dug-*s*(ii)*s*-e
Terfa-Nom Gamtesa milk drink-Trs-Cs-Pst.3MS
'Terfa made Gamtesa drink the milk' (Dubinsky et al. 1988: 486)

c. Oromo

terfaa-n gamtessa fiig-*s*(i)*s*-e
Terfa-Nom Gamteessaa run-Trs-Cs-Pst.3MS
'Terfa made Gamtesa run' (Dubinsky et al. 1988: 486)

I will give an account for this phenomenon based on the aforementioned ideas from Distributed Morphology that (i) the phonological realizations of roots and morphemes occur only after the formation of syntactic compositions is complete and (ii) a functional morpheme can be realized with a different phonological exponent depending on the morpho-syntactic environment in which the functional morpheme is placed.

Based on the fact that *-s* also appears with denominal and adjectival expressions, I will identify the transitive/causative realizations of *-s* as a realization of a functional element, *v**, and claim that *v* in Afar and Oromo can be realized as either *-s* or $\emptyset$,

in different morpho-syntactic environments. The morpho-syntactic environment for *v* can be shaped differently based on two factors: (i) the agentive nature of the event that a verb root denotes and (ii) *v*'s structural approximation to its Root. The transitive expressions in Afar and Oromo can have their *v* either phonologically realized as *-s* or null based on their morpho-syntactic environments (cf.4&5).

Amharic has a transitivizer morpheme, *a-*, and a causative morpheme *as-*. Based on the idea that Amharic has been linguistically influenced by its adjacent Cushitic languages and Ethio-Semitic utilizes *a-* as a transitivizer, I will segment *as-* as transitive *a-* and causative *s-*. It turns out that the distributional patterns of *a-* and *s-* are strikingly similar to those of *-s* in Cushitic. I will apply a similar set of exponent rules to the Amharic derivational morphology.

1.3.2 Chapter 3

Chapter 3 is a discussion on the object agreement phenomena in Amharic. The object agreement morpheme in the verbal complex of Amharic can cross-reference either a direct object or an indirect object. However, in some triadic constructions, the presence of an indirect object blocks the control of object agreement by a direct object. In some triadic constructions, an indirect object is cross-referenced by an agreement suffix that is amalgamated with a prepositional element, i.e., [P-Ob.Ag]. I will explore the similarities and differences among the different object agreement phenomena in Amharic. Also the relation between accusative case marking and object agreement of a direct object will be investigated. This chapter functions as a preface for Chapter 4, in which I will discuss applicative constructions in Amharic, because the obligatory control of object agreement by the applied object will play an important role in my analysis of applicative constructions in Amharic.

1.3.3 Chapter 4

The subject of Chapter 4 is the morphological variations of the applicative constructions in Amharic. In Amharic, there are various types of triadic constructions that seem to involve the process of applicativization, i.e., the obligatory control of object agreement in the verbal complex by the indirect object (cf. 7), and these constructions are differentiated by the distributions of prepositional elements as shown in (7).

- (7) a. almaz **ba**-mätrəgiya-w_i bet-oč-u-n_j tərräg-äčč-**bb**-ät_i/*_j
 Almaz **P**-broom-Def_i house-Pl-Def-Acc cleaned-Sub.3FS-**p**-3MS_i/*_j
 ‘Esther cleaned the houses with the broom’
- b. almaz ∅-mätrəgiya-w-ən_i bet-u-n_j tərräg-äčč-**bb**-ät_i/*_j
 Almaz **P**-broom-Def-Acc_i house-Def-Acc_j cleaned-Sub.3FS-**p**-3MS_i/*_j
 ‘Esther cleaned the houses with the broom’
- c. aster **lä**-dawit_i dorow-wa_i-n sätä-äčč-∅-əw_i/*at_j
 Esther **P**-David- hen-Def-Acc gave-Sub.3FS-**p**-Ob.3MS/*Ob.3FS
 ‘Esther gave David the hen’
- d. lebä-očč-u ∅-mulu-n_i borsa-w-ən_j
 thief-Pl-Det **P**-Mulu-Acc wallet-Def-Acc
 qämm-u-∅-at_i/*ät_j
 robbed-Sub.3Pl-**p**-Ob.3FS/*3MS
 ‘the thieves robbed Mulu of the wallet’

Based on the presence of applicative constructions that contain two prepositional elements (cf. 7a), I will claim that the process of applicativization is derived by two processes: (i) the remerge of the functional preposition, *p*, that originates in the prepositional phrase that contains a lexical preposition, *P*, that selects the applied object, and (ii) the movement the PP that contains the applied object to the specifier position of the remerged *p*.

However, some applicative constructions only phonologically realize the functional prepositional in the structure (cf. 7b), some constructions only the lexical one (cf. 7b) and some realize neither (cf. 7d). I will claim that these morphological variations of

the applicative constructions in Amharic are derived by the overt/covert phonological realizations of the two prepositions.

The applicative constructions that do not realize a prepositional element in the verbal complex always have an interpretation of possession between the theme and applied object (cf. 7c&d). In the applicative constructions that realize a preposition, there is no such possession requirement. I will claim that there is a structural difference between the two types of applicative constructions: the applicative constructions that have a required possession interpretation have both the theme and applied objects originating inside PP to form a possession relation, but in the applicative constructions without the requirement, only the applied object originates in PP. The *p* of the former type merges with the theme object before it remerges with the verbal domain. Thus *p* hosts two specifier positions during the derivation of the former type. In the structure of the latter type of applicative constructions, such a configuration is formed just once in the verbal domain. *p* being a function element, it can have a different phonological exponent based on morpho-syntactic environment. I will claim that the covert/overt realization of *p* is determined by the number of specifiers *p* hosts in the structure.

The lexical prepositions can also be either covert or overt in applicative constructions in Amharic. There is complementary distributions between the accusative case and a lexical preposition. I interpret this distributional pattern in such a way that when there is no case feature to check for the applied object inside PP, it checks its case feature against *v*. Thus, the lack of a case feature on P is related to its covert realization in the Amharic applicative constructions.

Functional elements are involved in the formation of the complex verbal expressions: *v* in the transitive/causative and *p* in the applicative constructions, and they are realized with a different exponent based on the morpho-syntactic environment. Thus the dissertation concludes that the presence of morphological variations of the complex

verbal expressions are delivered because their functional elements can receive various phonological exponents based on the morpho-syntactic environment in which they are placed.

Chapter 2

Morphological Transitives and Causatives in the Horn of Africa

This chapter is on morphological transitivization and causativization in Amharic and its two neighboring East Highland Cushitic languages, Afar and Oromo. In Amharic the transitivization of unaccusative verb stems is accompanied by an application of a verbal prefix **a-** and the causativization of any verb stem is accompanied by an application of **as-**. In the two Cushitic languages, both derivations are accompanied by a suffix, **-s**. I will attempt to identify the morpho-syntactic natures of these verbal morphemes and try to describe the distributional patterns of these morphemes based on ideas from Distributed Morphology. *Late Insertion*, the idea that the phonological realization of vocabulary items awaits the completion of syntactic derivation, will be an important concept for my investigation of the morphological distributions of the derivational morphemes. v^* that introduces an external argument can be merged directly with a root or with a composite of [... v^* ... [... Root ...]]. The former occurrence of v^* can be realized as a transitive morpheme and the latter as a causative element. The morpho-syntactic environment can be shaped differently around v^* with respect to the distance from its root and its relation to another v^* in the structure, and accordingly the phonological realization can be various.

The Amharic **as-** causative is segmented into the Amharic transitive morpheme, **a-**, and the Cushitic transitive/causative **-s**. Although Amharic is considered to be a Semitic language, there are many morpho-syntactic properties in its verbal domain that close investigations indicate are related to those of neighboring Cushitic languages. Based on the fact that **-s-** as a derivational morpheme is absent in an older Ethiopian Semitic language, Ge'ez, I will pursue the idea that Amharic borrowed a suffix **-s** as a realization of a causative element. I will assume Kroch's (2005) ideas on language change, language change as induced by language contact. Amharic acquired its causative **as-** by adding Cushitic **-s** to its transitive **a-** through language contact. It has been pointed out by Leslau (1945) that, although **-s** is a loaned element from Cushitic into Amharic, it is placed on the opposite side of the verb stem, i.e., [...V...-s...] in Cushitic and [...s-...V...] in Amharic. I will show that this difference is a consequence of the fact that the same derivational suffix is placed in different morpho-syntactic environments in Amharic and Cushitic: there is a head movement of the verbs in Amharic while the verbs in East Cushitic remain in-situ. Due to the presence/absence of verb movement, the same verbal suffix **-s** ends up at different locations in the verbal complex.

2.1 The morphological transitive and causative expressions in Amharic

In Amharic a verbal prefix, **a-**, accompanies the transitivization of unaccusative verb stems and a prefix, **as-**, the causativization of any verb stems. In this section, I will show the basic distributions of the prefixes, **a-** and **as-**, with respect to the transitivity of the stems to which each verbal prefixes are allowed to attach.

2.1.1 The distributions of the verbal prefix, *a-*

Leslau (1968: 71) described the verbal prefix, **a-**, as a transitivizing element. "[It] is used mainly used with intransitive verbs. Its function is to change the intransitive

verbs into a transitive one.” All of his examples of intransitive stems with which Leslau tries to demonstrate his point seem to be unaccusative verbs. Within an approach with a more refined transitivity typology, Mengistu Amberber (1997) observes that *a-* applies productively only to unaccusative verb stems while it is not usually found prefixed to transitive or unergative verb stems.¹ These points are illustrated in (8-13).

(8) Unaccusative

- a. qəbe-w qällät-ä
butter-Def melted-Sub.3MS
‘The butter melted’
- b. dawit qəbe-w-ən *a*-qällät-ä-w
David butter-Def-Acc *a*-melted-Sub.3MS-Ob.3MS
‘David melted the butter’

- (9)
- a. wəha-w fälla-Ø
water-Def boiled-Sub.3MS
‘The water boiled’
 - b. aster wəha-w-ən *a*-fälla-čč-əw
Esther water-Def-Acc *a*-boiled-Sub.3FS-Ob.3MS
‘Esther boiled the water’

(10) Unergative

- a. aster čäffär-äčč
Esther danced-Sub.3FS
‘Esther danced’
- b. *dawit aster-ən *a*-čäffär-ä-at
David Esther-Acc *a*-danced-Sub.3MS-Ob.3FS
*‘David danced Esther’

1

There are some cases of transitive or unergative verbs that seem to accept application of the transitivizer morpheme, *a-*. See Mengistu Amberber (1997), in particular, for the application of *a-* to the so-called ingestive transitive verbs (e.g., *bäla* ‘eat’, *a-bäla* ‘feed’). However, I would like to concentrate on grammatically productive applications of *a-* and *as-*.

- (11) a. aster roṭ-äčč
 Esther ran-Sub.3FS
 ‘Esther ran’
- b. *dawit aster-ən **a**-roṭ-ä-at
 David Esther-Acc **a**-ran-Sub.3MS-Ob.3FS
 *‘David ran Esther’

(12) Transitive

- a. *dawit bira-w-ən **a**-täṭṭa-∅
 David beer-Def-Acc **a**-drank-Sub.3MS
 ‘David drank the beer’

- (13) a. *aster dawit-ən **a**-mäṭṭa-čč-əw
 Esther David-Acc **a**-hit-Sub.3FS-Ob.3MS
 ‘Esther hit David’

2.1.2 The distributions of the verbal prefix, **as**-

Unlike the distributions of the **a**- prefix, those of a verbal prefix, **as**-, do not discriminate the transitivity structure of the stem. Mengistu Amberber (1997) describes **as**-. ‘[I]t is not sensitive to the Event type [transitivity] of the Root [verb stem].’ It is applicable to stems of all transitivity types’

(14) Unaccusative

- a. qəbe-w qällät-ä
 butter-Def melted-Sub.3MS.
 ‘The butter melted’
- b. aster dawit-ən qəbe-w-ən **as**-qällät-čč-əw
 Esther David-Acc butter-Def-Acc **as**-melted-Sub.3FS-Ob.3MS
 ‘Esther made David melt the butter’

- (15) a. wəha-w fälla-∅
 water-Def boiled-Sub.3MS
 ‘The water boiled’

- b. dawit aster-ən wəha-w-ən **as**-fälla-∅-at
 David Esthe-Acc water-Def-Acc **as**-boiled-Sub.3FS-Ob.3FS
 ‘David made Esther boil the water’

(16) Unergative

- a. aster čäffär-äčč
 Esther danced-Sub.3FS
 ‘Esther danced’
- b. dawit aster-ən **as**-čäffär-ä-at
 David Esther-Acc **as**-danced-Sub.3MS-Ob.3FS
 ‘David made Esther dance’

- (17) a. aster roṭä-äčč
 Esther ran-Sub.3FS
 ‘Esther ran’
- b. dawit aster-ən **as**-roṭä-at
 David Esther-Acc **as**-ran-Sub.3MS-Ob.3FS
 ‘David made Esther run’

(18) Transitive

- a. aster bira-w-ən ṭätta-čč-w
 Esther beer-Def-Acc drank-Sub.3MS-Ob.3MS
 ‘Esther drank the beer’
- b. dawit aster-ən bira-w-ən **as**-ṭätta-∅-at
 David Esther-Acc beer-Def-Acc **as**-drank-Sub.3MS-Ob.3FS
 ‘David made Esther drink the beer’
- c. aster dawit-ən mätta-čč-əw
 Esther David-Acc hit-Sub.3FS-Ob.3MS
 ‘Esther kicked David’
- d. aster dawit-ən k^was-u-n **as**-mätta-čč-əw
 Esther David-Acc ball-Def-Acc **as**-hit-Sub.3FS-Ob.3MS
 ‘Esther made David kick the ball’

2.2 The interpretations of the *a*-V and the *as*-V expressions

The changes in the thematic structure that are accompanied by the addition of both *a*- and *as*- are both the addition of an external argument. However, there is a difference between the interpretations of the resultant structures. The external argument that is added by the addition of *a*- is the direct agent of the event that is denoted by the stem to which the prefix is attached. On the other hand, the external argument that is introduced by *as*- is only introduced as the outside causer of the event but never as the agent of the event itself (cf.19).

- (19) a. aster qəbe-w-n *a*-qällät-äčč-əw
 Esther butter-the-Acc *a*-melted-Sub.3FS-Ob.3MS
 √‘Esther melted the butter’
 *‘Esther made (someone) melt the butter’
- b. aster qəbe-w-n *as*-qällät-äčč-əw
 Esther butter-the-Acc *as*-melted-Sub.3FS-Ob.3MS
 *‘Esther melted the butter’
 √‘Esther made (someone) melt the butter’

as-causative constructions that do not show the agent argument of the causativized event, as the one in (19b), can be interpreted ambiguously: the agent argument of the caused event can be interpreted as passivized or not. Thus, expressions like the one in (19b) can be understood as the causative of either active or passive transitives, as shown in (20). The causativized event of the *as*-expressions as the one in (20) also can be interpreted as unaccusative (cf. 2.7.8).

- (20) aster qəbe-w-n *as*-qällät-äčč-əw
 Esther butter-the-Acc *as*-melt-Sub.3FS-Ob.3MS

- ‘Esther had the butter melted (by someone)’
 ‘Esther had (someone) melt the butter’
 ‘Esther made the butter melt’

However, in any case, it still holds that the external argument introduced along with the prefix **as-** cannot be directly involved in the melting event which the verb stem denotes in (19b&20). From these observations, we safely conclude that the descriptions of the distributions of these morpheme from the previous works are in fact on the right track. The **a-** prefix accompanies transitivization of unaccusative stems and the **as-** prefix causativization of stems of any transitivity. Let us summarize as in (21).

- (21) a. **a-** is a transitive element
 b. **as-** is a causative element

Girmaye Berhane (1992) and Bezza Tesfaw (1997) show some data that possibly are problematic for the descriptions in (21). Girmaye Berhane (1992) and Bezza Tesfaw (1997) claim that the causativized verb stem of the **as-**causative expressions is always passivized and, thus, is never rendered as an active transitive. Their claim is based on the marginality of sentences like the one in (22a) in which the two objects are both marked with the accusative prefix, *-n*, while its thematically equivalent construction in which the causee is introduced inside a *by*-phrase is perfectly acceptable, as shown in (22b).

- (22) a. ??aster dawit-ən girma-n **as**-mättä-čč-əw
 Esther David-Acc Girma-Acc **as**-kicked-Sub.3FS-Ob.3MS
 ‘Esther made David kick Girma’
 b. aster girma-n ba-dawit **as**-mättä-čč-əw
 Esther Girma-Acc ba-David **as**-kicked-Sub.3FS-Ob.3MS
 ‘Esther had Girma be kicked by David’

However, the marginality of the expression in (22a) does not seem to be caused by the transitivity of the causativized clause. Compare the constructions in (22a) & (23).

If the lower object is an inanimate object, an **as**-construction with two accusatively marked objects is perfectly fine. Thus, the marginality should be linked to the fact that there are two [+animate] objects in the thematic structure of the causativized event.

- (23) aster dawit-n kwas-u-n **as**-mättä-čč-əw
 Esther David-Acc ball-Def-Acc **as**-kicked-Sub.3FS-Ob.3MS
 ‘Esther made Dawit kick the ball’

2.2.1 The causative of *derived* transitive: *[**as**-**a**-V_{UNACC}]

Traditionally, in the context of the descriptive grammar of Amharic, the two prefixes are described as independent units: **a**- as a transitivity marker and **as**- as a causativizer (cf. Leslau 1968, Mengistu Amberber 1997) just as I have also done as in (21). However, there is a fact that is puzzling for such an *independent* view on the two morphemes. It is the **as**-causative expressions formed on a *derived* transitive expression, a transitive expression that is morphologically *derived* based on an unaccusative stem by the application of the **a**-prefix, as in the b-examples of (14&15), repeated here as in (24).

- (24) The **as**-causative of *derived* transitives
- a. aster dawit-ən qəbe-w-ən **as**-qällät-čč-əw
 Esther David-Acc butter-Def-Acc **as**-melted-Sub.3FS-Ob.3MS
 ‘Esther made David melt the butter’
 - b. dawit aster-ən wəha-w-ən **as**-fälla-Ø-at
 David Esther-Acc water-Def-Acc **as**-boiled-Sub.3FS-Ob.3FS
 ‘David made Esther boil the water’

What is puzzling from an independent **a**- and **as**- perspective is the morphological structure of the verbal complex of expressions as in (24). Unaccusative stems are realized with a prefix, **a**-, when they are used as transitive, i.e., [**a**-V_{Unacc}] (cf. 8b, 9b, 25b, 26b). Nonetheless, when they are further causativized by an application of **as**-, they no longer show the transitive **a**- morpheme, as shown in (25c&26c).

- (25) a. qällät-ä
melted-Sub.3MS
'X melted_{Unacc}'
- b. **a**-qällät-ä
Trs-melted-Sub.3MS
'X melted_{Trs} Y'
- c. **as**-(**a**-)qällät-ä
Caus-(**a**-)melted-Sub.3MS
'X made Y melt Z'
- (26) a. fälla-∅
boiled-Sub.3MS
'X boiled_{Unacc}'
- b. **a**-fälla-∅
Trs-boiled-Sub.3MS
'X boiled_{Trs} Y'
- c. **as**-(**a**-)fälla-∅
Caus-(**a**-)boiled-Sub.3MS
'X made Y boil Z'

For this unexpected disappearance of a prefix, **a**-, Mengistu Amberber (1997) introduces a morphological rule that says that, in the Amharic verbal complex, only one verbal prefix is allowed to be phonologically realized.

There is, however, another way to approach this distributional pattern of the prefixes. That is to claim that **as**- is segmented as **a-s**, the transitive **a**- and an **-s**- that is a causative element on its own (cf. 27). Thus, the **as**-causative expressions of the *derived* transitive are derived incrementally, as in (28&29).

- (27) **a-s**-V_{stem}
Trs-Caus-Verb

- (28) a. qällät-ä
melted-Sub.3MS
'X melted_{Unacc}'

- b. **a**-qällät-ä
Trs-melted-Sub.3MS
'X melted_{Trs} Y'
- c. **a-s**-qällät-ä
Trs-Caus-melted-Sub.3MS
'X made Y melt Z'
- (29) a. fälla-∅
boiled-Sub.3MS
'X boiled_{Unacc}'
- b. **a**-fälla-∅
Trs-boiled-Sub.3MS
'X boiled_{Trs} Y'
- c. **a-s**-fälla-∅
Trs-Caus-boiled-Sub.3MS
'X made Y boil Z'

From the perspective of the incremental morphological approach, the transitive **a**-prefix does not disappear. It remains to form a morphological complex, **a-s**-, with the causative affix, **-s**-. **a-s**- as a whole is prefixed to the verb stem.

- (30) a. **a**- is a transitive element
- b. **-s**- is a causative element

However, a question can be raised for this segmental approach. That is: why does not **-s**- by itself occur as a causative element. It does not appear as a verbal morpheme at all in Amharic. But in the neighboring Cushitic languages it does. Here, **-s**- is frequently utilized as a verbal morpheme. I will turn to the Cushitic derivational suffix **-s** in the next section.

A related set of problematic data is the **as**-causative constructions of *underived* transitive or unergative. The *underived* transitive expressions are the ones not *derived*

from unaccusative stems. The causative derivation of these expressions is a single derivational process. However, if **as-** is a composite of two derivational morphemes, we are forced to say that there are two morphemes, **a-** and **-s-**, that are applied for a single derivational process. The occurrence of transitive **a-** is unexpected, because there is no transitivization process involved and these transitive and unergative stems do not themselves realize a transitive element. The problem, the apparently superfluous appearance of transitive **a-**, is depicted as in (31) with a question mark in the gloss to identify its mysterious occurrence.

- (31) a. **ṭäṭṭa-∅**
 drank-Sub.3MS
 ‘X drank Y’
- b. **a-s-ṭäṭṭa-∅**
 ?-Caus-drank-Sub.3MS
 ‘X made Y drink Z’
- c. **cäffär-ä**
 danced-Sub.3MS
 ‘X dance’
- d. **a-s-cäffär-ä**
 ?-Caus-dance-Sub.3MS
 ‘X made Y dance’

Another question comes from the **as-**causative expressions whose causativized event is interpreted as unaccusative (cf. 32). If the causativized event is not transitive, where does the transitive **a-** come from (32)?

- (32) aster qəbe-w-n **as-qällät-äčč-əw**
 Esther butter-the-Acc **as-melt-Sub.3FS-Ob.3MS**
 ‘Esther made the butter melt’

On the other hand, for an *independent* approach that considers **as-** as a causative element (cf. 21), the causative of unaccusative expressions as the one in (32) are not a

problem.

For the time being, I will set these problematic facts for a segmental approach aside and look into the plausibility of the **a-s-** approach from comparative and diachronic perspectives. Once the segmental approach is implemented, these problematic data are dealt with and given solutions to (cf. §2.7.8).

2.3 Comparative and Diachronic Perspectives

Despite the fact that **-s-** by itself does not occur as a derivational morpheme in the verbal domain of Amharic, claiming it as a causative morpheme seems to get plausible from comparative and diachronic perspective. In many languages from Amharic's adjacent language groups, East and Central Cushitic, a causative morpheme is realized as **-s**, as shown in (33&34). And Amharic is considered by some linguists (cf. Leslau 1945, Bender and Hailu Fulass 1978 and related works) to have had heavy influence from the Cushitic grammar and lexicon.

(33) Central Cushitic: Agaw languages (Appleyard 1986: 3-5)

I. Billin

- a. sax -is... 'cause to take'
- b. ded -is... 'cause to open'
- c. ganj -is... 'cause to sleep'

II. Xamir

- a. qan -is... 'cause to love'
- b. ku -is... 'cause to kill'
- c. anq^w -əs... 'cause to kiss'

(34) East Highland Cushitic:²

²In East Highland Cushitic, a suffix, **-s**, is utilized as a transitivizer and causativizer

I. Afar

- a. fax-e 'X boiled'
- b. fax-is-e 'X boiled Y'
- c. fax-is-iis-e 'X made Y boil Z'

II. Oromo

- a. danf-e 'X boiled'
- b. danf-is-e 'X boiled Y'
- c. danf-is-iis-e 'X made Y boil Z'

Many researchers have emphasized Amharic's close ties to the Cushtic family. One of the strongest Cushitic hypotheses is Bender and Hailu Fulass's (1978) Creole hypothesis, which speculates that Amharic has a Creole origin with a Semitic superstratum and a Cushitic substratum. Leslau (1945) notes the Cushitic influence on the formation of the *double* causative constructions of Ethio-Semitic, whose causative morpheme can be taken to be a composite of two elements, just as *a-s-* in Amharic. Leslau (1945) bases on his observations of the morphological causative constructions in Tigre, another Ethio-Semitic language whose morphological causative constructions can also be taken to suggest Cushitic influences. Leslau (1945:71) notes that:

The formation of the double prefix of the causative was without doubts influenced by Cushitic, which normally forms a double causative from nearly every verb. Note, however, that in Cushitic the element of the causative is suffixed and not prefixed.

Leaving the prefix-suffix puzzle for the time being, Leslau's note that the formation of the double causative of Ethio-Semitic is an influence from Cushitic gets support when we compare it to its counterparts in Ge'ez. Ge'ez or Classical Ethiopic is considered to be one of the oldest Ethio-Semitic languages that has been recorded. In this

language, morphological transitivization and causativization is done by the application of the same morpheme, **'a-**.

(35) Ge'ez: Unaccusative → Transitive (Dillmann 1899:148-150)

- | | | |
|--|---|---|
| a. fləha
boiled
'X boiled _{unacc} ' | → | b. 'a -fləha
Trs-boiled
'X boiled Y' |
|--|---|---|

(36) Ge'ez: Transitive → Causative (Dillmann 1899:148-150)

- | | | |
|------------------------------------|---|---|
| a. qtala
killed
'X killed Y' | → | b. 'a -qtala
Caus-killed
'X made Y kill Z' |
|------------------------------------|---|---|

Assuming that, in Older Ethio-Semitic languages, the [**'a**-V] expressions are ambiguous in the sense that it can be interpreted as a derived transitive or a causative expression, we can hypothesize that the presence of the **a-** and **as-** prefixes in Amharic is a result of the adoption of an extra element, **-s-**, in the causative version of the [**'a**-V] expression. We have already seen that **-s-** is frequently used as a causative element in Amharic's adjacent Cushitic languages (cf. 33&34).

- | | |
|---|---|
| (37) a. Ge'ez | b. Amharic |
| $ \begin{array}{l} [\mathbf{'a}\text{-V}] \rightarrow \text{Transitive} \\ \searrow \\ \text{Causative} \end{array} $ | $ \begin{array}{l} [\mathbf{a}\text{-V}] \rightarrow \text{Transitive} \\ \\ [\mathbf{a}\text{-s-V}] \rightarrow \text{Causative} \end{array} $ |

Kroch (2005) hypothesizes that a change in grammar can be due to language contact. Kroch develops the “errors-in-acquisition” perspective that claims that a change in a language can be initiated by a mistake made by speakers who acquire the language as a second language.

Following the speculation made by Bender and Hailu Fulass (1978) that Amharic originates from a Creole genesis, we can assume that there was a time in the linguistic history of Ethio-Semitic languages, a significant number of the Cushitic speaking population was acquiring an Ethio-Semitic language where the [*a*-V] expressions were ambiguous just as they are in Ge'ez. This ambiguous usage was somehow intolerable for the Cushitic speakers. They started realizing an extra element that was available in their first language grammar, Cushitic, a realization of a causative morpheme, -s-, in the causative expressions in order to disambiguate the transitive and causative expressions in the Ethio-Semitic language they spoke. This second language speakers' mistake eventually stabilized.

2.4 Close comparisons between Amharic and East Cushitic

After making comparative and diachronic assumptions between the derivational morphologies of Amharic and Cushitic, some observation of the Cushitic verbal morphology will be due. Fortunately, the verbal morphologies of the Cushitic languages have been studied by some linguists. The works by Richard Hayward are the first works that closely study morphological transitivization and causativization in Afar (cf. especially Hayward 1976a Parker and Hayward 1985) and Oromo (cf. Hayward 1976b). Hayward's account of Afar and Oromo causatives was followed up by some works by other linguists (cf. Owens 1985, Lloret 1987, Dubinsky et al. 1988). In this section, I will provide an overview of the basic morpho-syntactic affairs of the East Highland Cushitic morphological causative and transitive constructions. In Afar and Oromo, transitivization of unaccusative stems and causativization are both accompanied by the application of a suffix, -s (cf. 34).

We will look at these transitive and causative expressions. The observations that the

previous works on the Afar and Oromo derivational morphology have made strikingly resemble what we observed in the derivational morphology of Amharic.

2.4.1 East Cushitic Transitivity

As the *a-* verbal prefix appears with the transitivity of unaccusative stems in Amharic, a prefix, *-s*, in the two East Cushitic languages accompanies the transitivity of unaccusative stems, as shown in (38-39).³

(38) Afar (Hayward 1976a: 323-324)

- a. lee fax-te
water boiled-Sub.3MS
'The water boiled'
- b. awká lee fax-(i)ss-e
girl water boil-Trs-Sub.3FS
'The girl boiled the water'
- c. idalti ur-eh yen
old man got.well.Sub.3MS Pst.3MS
'The old man had got well'
- d. hakiim idaltu ur-(u)s-eh yen
doctor old man got.well-Trs-Sub.3MS Pst.3MS
'The doctor had cured the old man'

(39) Oromo

- a. bišaan-i damf-e
water-Nom boil-Sub.3MS
'The water boiled' (Baye Yimam 1986: 129)

3

Some occurrences of *-s* in the Afar structures in (38) are geminated. Hayward (1976a) does extensive studies on the phonological issues of the derived verbal expressions in Afar and Lloret (1987) on those in Oromo. Following Hayward (1976a), (1976b) and Lloret (1987), I also consider the occurrences of vowels between the stem and derivational suffixes as an epenthetic phonological element which I present inside parentheses. In Afar, there is vowel harmony (rounded/unrounded) between the vocalic features of the stem and the epenthetic vowels.

- b. tulluu-n bišaan damf-(i)s-e
Tulluu-Nom water boil-Trs-Sub.3MS
'Tulluu boiled the water' (Baye Yimam 1986: 129)
- c. muk-ni gog-e
wood-Nom dry-Pst.3MS
'The wood dried'(Lloret 1987: 141)
- d. terfaa-n muka gog-s-e
Terfa-Nom wood dry-Trs-Sub.3MS
'Terfa dried the wood'(Lloret 1987: 141)

2.4.2 East Cushitic Causativization

The *derived* transitive expressions that we have just seen are causativized by the application of another suffixation of *-s*, as in (40&41). This part is totally identical in Amharic. Leslau's (1945) prefix/suffix placement puzzle aside, it is also the application of *-s-* that accompanies the causativization of *derived* transitives in Amharic.

(40) Afar (Hayward 1976a: 323-324)

- a. anu awká lee fax-s-(ii)s-e
I girl water boil-Trs-Caus-Sub.1S
'I got the girl to boil the water'
- b. idalto xakiim idaltu ur-s-(u)ss-eh ten
old woman doctor old man get-well-Trs-Caus-Sub.3FS Pst.3FS
'The old woman had got the doctor to cure the old man'

(41) Oromo

- a. tulluu-n fayyiisaa bišaan damf-(i)s-(ii)s-e
Tulluu-Nom Fayysaa water boil-Trs-CS-Sub.3MS
'Tulluu made Fayysaa boil the water' (Baye Yimam 1986: 129)
- b. terfaa-n toltuu muka gog-s-(ii)s-e
Terfa-Nom Toltuu wood dry-**Trs-Cs**-Sub.3MS
'Terfa made Toltuu dry the wood' (Lloret 1987: 144)

What is even more interesting is that, in Afar and Oromo, the causativization of *underived* transitive or unergative stems is accompanied by application of two *-s*'s (42&43). There are two appearances of a derivational morpheme, two *-s* suffixes, for a single causativization process. This situation seems to find a parallel in Amharic. There is also an appearance of a superfluous derivational morpheme in the causative of *underived* transitives and unergatives in Amharic. It is the unexpected appearance of transitive *a-*. In Cushitic, we have just seen that *-s* can occur as a transitive element. The extra one can be a transitive element in constructions as in (42&43).

(42) Afar (Hayward 1976a: 323-324)

- a. ħumar xaagid sel-e
'umar matter finish-Sub.3MS
'Umar finished the business'
- b. anu ħumar xaagid sel-s-(ii)s-e
'I umar matter finish-Trs-Caus-Sub.1S
'I caused Umar to finish the business'
- c. a saaku anu xan nak-e
this day I milk drink-Sub.3MS
'I drank milk today'
- d. a saaku osan xan yo nak-s-(ii)s-en
this day I milk me drink-Trs-Caus-Sub.3Pl
'They made me drink milk today'

(43) Oromo

- a. terfaa-n aannan dug-e
Terfa-Nom milk drink-Sub.3MS
'Terfa drank the milk' (Baye Yimam 1986: 486)
- b. terfaa-n gamteesaa aannan dug-s-(ii)s-e
Terfa-Nom Gamtesa milk drink-Trs-Caus-Sub.3MS
'Terfa made Gamtesa drink the milk' (Dubinsky et al. 1988: 486)
- c. terfaa-n fiig-e
Terfa-Nom run-Pst.3MS

‘Terfa ran’ (Dubinsky et al. 1988: 486)

- d. terfaa-n gamtessa fiig-**s**-(i)**s**-e
 Terfa-Nom Gamteessaa run-Trs-Caus-Sub.3MS
 ‘Terfa made Gamtesa run’ (Dubinsky et al. 1988: 486)

2.5 The Puzzle

The distributional patterns of the **-s** suffixes in transitive and causative expressions have been a topic for all linguists who have worked on the verbal morphology of the two East Cushitic languages. All of them included observations of the distributional patterns based on the transitivity of the stem to which **-s** is affixed. We have observed that there is a mismatch between the number of the **-s** suffixes and the change in the thematic structures in the causative constructions of *underived* transitive and unergative verbs (cf. 42&43). Hayward is the first to identify this mismatch in Afar (cf. Hayward 1976a) and Oromo (cf. Hayward 1976b). I will summarize the mismatch in this section. It turns out that the same type of mismatch is also observed in the Amharic morphological causative constructions. We will also juxtapose the equivalent structures from Amharic and the two East Cushitic languages in this section.

2.5.1 Hayward’s Puzzle

Firstly, we can morphologically differentiate two types of transitive expressions. One type is the transitive and unergative expressions that do not appear with a suffix, **-s**, and another is the transitive expressions that are accompanied with **-s**. The latter is the type of transitive expressions that we termed as *derived*, in the sense that they are morphologically *derived* from the unaccusative stems (cf. the a- & c- examples of 38&39). The former are *underived* transitive or unergative expressions in the sense that they are not derived from an unaccusative stem (cf. the a- & c- examples of 42&43).

When we compare the formation of the causative expressions of the two morphological types of transitive stems, we run into an interesting situation. The transitivization of unaccusative stems realizes a suffix, *-s* and the causativization of the *derived* transitive expression realizes another *-s*. There is a distribution of *-s* per derivation in the thematic structure. Each addition of an external argument during the derivation of a transitive from an unaccusative stem and the causative of *derived* transitives is accompanied by the addition of *-s* in the verbal complexes. However, this coordination breaks down in the causative of *underived* transitives and unergatives. There is a mismatch between the number of the derivations and the number of the morphemes in the structure. The addition of a causer, the external argument of causation, seems to be accompanied by two applications of *-s*. The contrast is depicted in the chart in (44).

(44)	<u>Transitive/Unergative</u> $V_{\text{Trs/Uerg}}$ $\downarrow$ $V_{\text{Trs/Uerg}}\text{-s-s}$ One Derivation: $\downarrow$ Two Morphemes: -s-s	<u>Unaccusative</u> V_{Unacc} $\downarrow$ $V_{\text{Unacc}}\text{-s}$ $\downarrow$ $V_{\text{Unacc}}\text{-s-s}$ Two Derivations: $\downarrow\downarrow$ Two Morphemes: -s-s
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Hayward (1976b) describes the distributions of *-s* in terms of the number of agentive noun phrases present in the resultant structures after the application(s) of *-s* in their verbal complex: “the numbers of *s* affixes introduced will correspond to the number of agentive noun phrases appearing in the [structure].” Hayward’s description captures the basic distributional nature of the suffix; it is related to the addition of an agent noun phrase.

2.5.2 Amharic and Cushitic puzzles compared

The generalization I have just depicted as in (44) is applicable also for the morphological causative of Amharic. A mismatch appears exactly in the same environment: the causative of *underived* transitives or unergatives, shown as in (cf. 46).

(45) The causative of *derived* transitive

- | | | |
|--|---|--|
| a. a -fälla-∅
Trs-boiled-Sub.3MS
‘X boiled Y’ | → | b. a-s -fälla-∅
Trs-Caus-boiled-Sub.3MS
‘X made Y boil Z’ |
|--|---|--|

(46) The causative of *underived* transitive

- | | | |
|--|---|--|
| a. mätta-∅
hit-Sub.3MS
‘X hit Y’ | → | b. a-s -mätta-∅
Trs-Caus-hit-Sub.3MS
‘X made Y hit Z’ |
|--|---|--|

Thus, Amharic and the two Cushitic languages shares the same puzzles. The unexpected occurrences of Cushitic **-s** and Amharic **a-** occur in exactly the same environments.

(47)	<u>Transitive/Unergative</u> $V_{\text{Trs/Uerg}}$ $\downarrow$ a-s-$V_{\text{Trs/Uerg}}$ One Derivation: $\downarrow$ Two Morphemes: a-s- <u>Unaccusative</u> V_{Unacc} $\downarrow$ a-V_{Unacc} $\downarrow$ a-s-V_{Unacc} Two Derivations: $\downarrow\downarrow$ Two Morphemes: a-s-
------	--

2.6 The limit of Hayward (1976b)’s approach

Hayward’s description seems to capture the basic pattern of the distributions of the derivational morpheme in the Cushitic languages and Amharic. However, it is not

designed to capture the complete picture. It does relate the number of the *-s* suffixes to the number of agentive nouns present, but not vice versa. That is to say Hayward's description would not have anything to say about the presence of an agent noun phrase that is not accompanied by the affixation of *-s* or *a-*. Such agents are the agents in the structures of *underived* transitives and unergatives.

They are schematically represented (cf. the circled agents in the d- & f- structures of 48&49) along with the structures that have the expected morphological appearances.

(48) Afar and Oromo

a.	water			boil...	(Unacc)
b.	<u>Agent</u>	water		boil- <u>s</u> ...	(Derived Trs)
c.	<u>Agent</u>	<u>Agent</u>	water	boil- <u>s</u> - <u>s</u> ...	(Cs of 48b)
d.	<u>Agent</u>	milk		drink...	(Underived Trs)
e.	<u>Agent</u>	<u>Agent</u>	milk	drink- <u>s</u> - <u>s</u> ...	(Cs of 48d)
f.	<u>Agent</u>			run...	(Unerg)
g.	<u>Agent</u>	<u>Agent</u>		run- <u>s</u> - <u>s</u> ...	(Cs of 48f)

(49) Amharic

a.	water			boil...	(Unacc)
b.	<u>Agent</u>	water		<u>a</u> -boil...	(Derived Trs)
c.	<u>Agent</u>	<u>Agent</u>	water	<u>a</u> - <u>s</u> -boil...	(Cs of 49b)
d.	<u>Agent</u>	milk		drink...	(Underived Trs)
e.	<u>Agent</u>	<u>Agent</u>	milk	<u>a</u> - <u>s</u> -drink...	(Cs of 49d)
f.	<u>Agent</u>			run...	(Unerg)
g.	<u>Agent</u>	<u>Agent</u>		<u>a</u> - <u>s</u> -run...	(Cs of 49f)

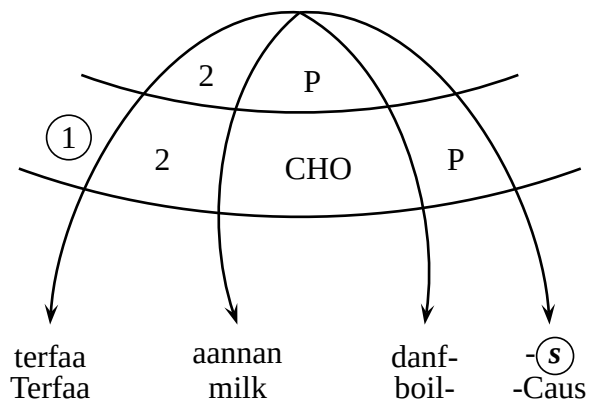
2.6.1 Dubinsky et al. (1988)

Dubinsky et al. (1988) also attempts to give an account for the distributional pattern of the *-s* transitive/causative suffix in Oromo. Their approach is based on Relational

Grammar. Instead of following Hayward (1976b)'s point of view that there is a correlation between the number of thematic agents and the number of -s suffixes in the structure of transitive/causative construction, they claim that: "the correlation is really between -s morphemes and grammatical subjects ... "

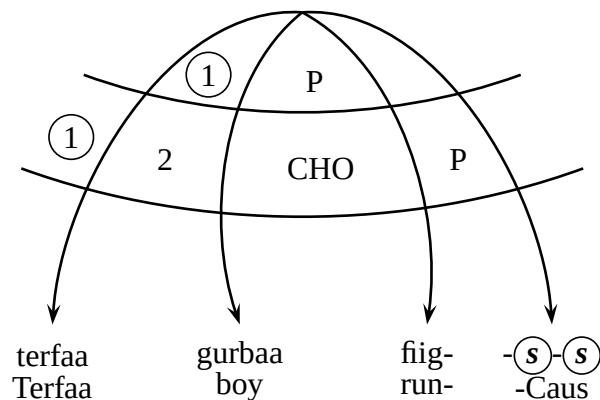
Dubinsky et al. (1988) considers transitivity and causativization to be a process of union construction in the sense of Davies and Rosen (1988). The suffix, -s, is a realization of a predicate that derives the causative process. In their approach, -s is not only the realization of the causative predicate, a set of two -s suffixes can also be realized as the Caus predicate. They claim that the number of -s realized for the causative predicate corresponds to the grammatical subjects that are present in the resultant expression. Consider their arch for the transitivity in (50).

(50) Transitivity

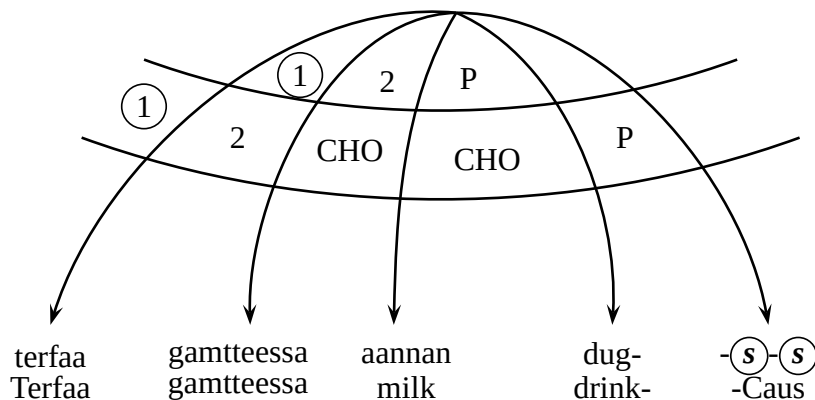


In the transitivity process of unaccusative stems, the Caus predicate element is phonologically realized as -s. This is because there is only one grammatical subject present in the resultant construction. A numeral, 1, represents a grammatical subject in their arches. Now consider their arches for the causativization processes applied for underived transitive and unergative stems given in (51).

(51) a. Causativization of underived Unergative



b. Causativization of underived Transitive



In the causative constructions of underived transitive and unergative stems, there are two occurrences of the suffix *-s* observed. For Dubinsky et al. (1988), this is because there are two grammatical subjects in the resultant constructions (cf. the two occurrences of ① in the arches in 51).

Their approach does describe the distributional pattern of transitivization and the causativization of underived causative expressions as given in the arches. It is also free from a problem like Hayward's agent vis-à-vis the *-s* suffix approach since the agent of underived transitive structures are not introduced into the structure by the Caus predicate. Therefore, no *-s* is realized.

In the transitive and causative formations of the two East Cushitic languages, the

morpheme that accompanies the derivations is always realized as *-s*. However, in Amharic, the transitive element and the causative element are realized differently: transitive as *a-* and causative as *s-*. Dubinsky et al. (1988) takes the predicates that deliver transitivization and causativization to be identical elements. Also the number of *-s* suffixes present in the resultant structure is related to the number of grammatical subjects in the structure in the approach suggested by Dubinsky et al. (1988). The processes of transitivization and causativization are not differentiated in their approach at all. In order to give an account for the facts that (i) there is a morphological difference between the transitive and causative morphemes, and (ii) these morphemes are placed in a specific morphological order, i.e., *a-s-* but not **s-a-*, they need extra rules in their theory.

Dubinsky et al. (1988) is only concerned with the morphological issues of the Oromo transitive and causatives. However, for my analysis, I have added the morphological issues from the Amharic transitive/causative derivation on the list of explananda. Since there are striking similarities among the morphological issues of the transitive/causative constructions of Amharic and the two East Cushitic languages and there are good chances for Amharic to share a Cushitic grammar, it is desirable for a theory to be able to account for the morphological issues of Amharic and the Cushitic languages all together.

The theory advanced for the morphological issues of the Amharic and East Cushitic transitive/causative constructions in this chapter shares some theoretical approaches with both Hayward (1976b) and Dubinsky et al. (1988). À la Hayward, I propose that there is a syntactic relation between the derivational morphemes that appear in the derived constructions and the external argument; however, à la Dubinsky et al. (1988), the morphological realizations of these morphemes are determined by the morpho-syntactic environment in which these morphemes are placed.

2.7 A Distributed Morphology approach: assumptions and claims

In this section, I will make some theoretical claims and assumptions that will be fundamental for my analyses proposed for the morphological affairs of the morphological transitive and causative constructions in Amharic and East Cushitic languages. I will assume two basic tenets of Distributive Morphology: (i) *Late Insertion*, the phonological realization of vocabulary items awaits the completion of syntactic derivation and (ii) the idea that the same functional element can have different phonological exponents in different morpho-syntactic environments. Based on denominal and deadjectival data in the languages, I will identify the derivational morphemes in Amharic and East Cushitic languages under discussion as different phonological realizations of the same element, namely the functional element in the verbal domain that introduces an external argument, v^* (cf. Chomsky 2001). I also claim that v^* verbalizes a root placed under it. Thus, in a structure where there are occurrences of two derivational morphemes, there are two v^* over the root. It is the structural variations of the layer of v^* and Root that induce the different phonological realizations of v^* .

2.7.1 The syntactic identity of *a-* and *-s*

The very first question we should perhaps ask is: what is the syntactic identification of the derivational morphemes, Amharic *a-* and Cushitic *-s*? We have seen that *a-* and *-s* are realized as a transitivizer. Interestingly, they also appear with denominal or deadjectival verbal expressions as in (52-54).

(52) Afar (Hayward 1976a: 343-344)

- | | | |
|------------------|---|---|
| a. meysi
fear | → | b. meysi-s...
fear-s...
'X to frighten Y' |
|------------------|---|---|

- | | | |
|------------------|---|--|
| c. migah
name | → | d. migah-(i)s...
name-s...
'X to name Y' |
|------------------|---|--|

(53) Oromo (Temesgen Neggasa 1995: 16)

- | | | |
|-----------------|---|--|
| a. malaa
pus | → | b. malaa-(i)s...
pus-s...
'X to discharge pus' |
| c. guda
big | → | d. guda-(i)s...
big-s...
'X to enlarge Y' |

(54) Amharic (Abraham Demo 1964)

- | | | |
|--------------------------------|---|---|
| a. g ^w ənč
cheek | → | b. a-g ^w ännäč...
a-cheek...
'X to give Y a cheek full of ...' |
|--------------------------------|---|---|

One important point for us to remark upon these expressions is that the denominal and deadjectival verbs that appear with **a-** in Amharic and **-s** in East Cushitic are interpreted only as a transitive expression even when an unaccusative interpretation seems to be quite natural to be read off from (52-54), e.g., 'to fear', 'to become big', 'to ooze pus' etc. Judging from the fact that the verbal morphemes **a-** and **-s** appear with denominal and deadjectival expressions, as in (52-54), and they also appear with transitivity, it is natural for us to treat them as phonological realizations of an verbalizing element that introduces an external argument, namely, v^* (cf. Chomsky 2001).

(55) Amharic **a-** and Cushitic **-s** are a phonological realization of v^*

A question follows immediately after the claim in (55): is the causative occurrence of **-s** in Afar, Amharic and Oromo also a phonological realization of v^* ?

2.7.2 v^* and Causativization

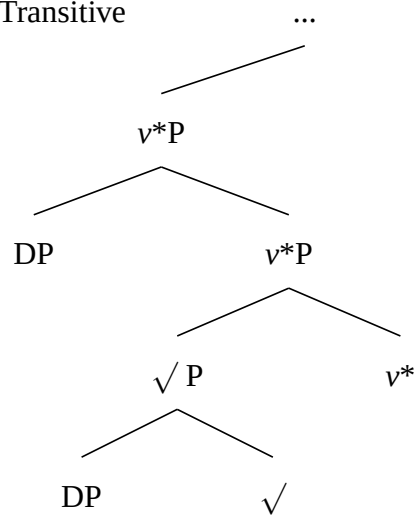
This chapter pursues an approach in which the question is answered positively based on a morphological phenomenon in Afar and Oromo: namely there are incremental applications of the same morpheme, *-s*, for the stepwise derivations of the transitive of unaccusatives and the causative of *derived* transitives (cf. 56). The morphological phenomenon is not an isolated one in East Cushitic. Bhatt and Embick (2004) also mentions a similar morphological phenomenon from Kashmiri. Kashmiri has parallel morphological derivations to those of Afar and Oromo. They are juxtaposed in (56) (56c is from Hook and Koul 1984 in Bhatt and Embick 2004).

(56) Incremental Derivations

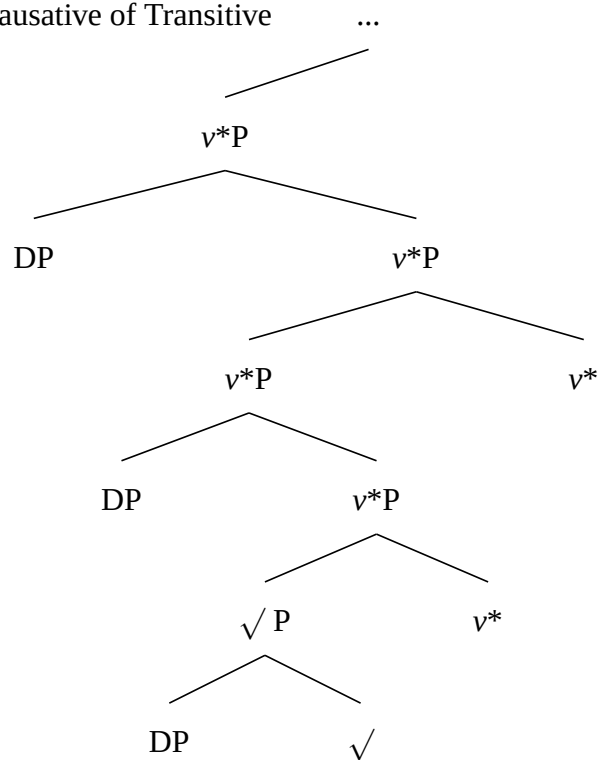
- | | | | | | | |
|----|-------------------------|---|-------------------------|---|--------------------------------|------------|
| a. | fax... | → | fax-(ii)s... | → | fax- s -(ii)s... | (Afar) |
| b. | danf... | → | danf-(i)s... | → | danf-(i) s -(ii)s... | (Oromo) |
| c. | grak | → | grak- Ina:v | → | grak- Ina:v-Ina:v | (Kashmiri) |
| | X boil _{Unacc} | | X boil _{Trs} Y | | X made Y boil _{Trs} Z | |

Based on the presence of this type of verbal morphology in Afar, Oromo and Kashmiri, I claim a syntactic structure as in (57b) for the causative of transitives in which a layer of two v^* 's selects a Root. It is given along with the structure of a transitive construction as in (57a).

(57) a. Transitive



b. Causative of Transitive



Besides the straightforward account it delivers for the morphological identity between the transitive and causative morphemes in Afar, Oromo and Kashmiri (cf. 56), the present approach also gives an account for the difference between the two verbal derivations, transitivity and causativization, that are accompanied by the same morpheme that introduces an external argument. The two derivations both add v^* to a

structure. However, the two are minimally different in that the v^* that is added for the transitivization is the one that merges locally to its Root (cf. 57a) while the causativizing v^* merges away from its Root or is separated from it by the local v^* (cf. 57b). This approach explains that their shared function, external argument introduction, is due to their categorial identity: being v^* . They are only different with respect to what they select syntactically. The transitive v^* selects a Root. The causative v^* selects another v^* and a Root. They are the same syntactic element at different syntactic locations.

2.7.3 The allomorphs

The next set of questions I will tackle is those regarding the causative of *underived* transitives and unergatives where a morphological composite of two derivational morphemes, **a-s** in Amharic and **-s-s** in Cushitic, seems to be applied while there is only one derivation in the argument structure, namely causativization, as depicted in (58).

- (58)
- | | | | |
|----------------|---|------------------------|-----------|
| a. nak... | → | b. nak-s-(ii)s... | (Afar) |
| ‘A to drink B’ | | ‘A to make B drink C’ | |
| c. dug... | → | d. dug-s-(ii)s... | (Oromo) |
| ‘A to drink B’ | | ‘A to make B drink C’ | |
| e. fiig... | → | f. fiig-s-(ii)s... | (Oromo) |
| ‘A to run’ | | ‘A to make B run’ | |
| g. ṭäṭa... | → | h. a-s -ṭäṭa... | (Amharic) |
| ‘A to drink B’ | | ‘A to make B drink C’ | |
| i. roṭä... | → | j. a-s -roṭä... | (Amharic) |
| ‘A to run’ | | ‘A to make B run’ | |

Let us assume the hypothesis that the external argument of all verbs is introduced by v^* (cf. Chomsky 1995, Chapter 4 et passim). Then, it has to be the case that v^* is present even in agentive verbal structures where **a-** or **-s** is not observed in the verbal complex, as in the left-hand side examples in (58). Instead of being realized as **a-** or **-s** as in the structure of *derived* transitives, i.e., [**a**-V_{Unacc}...] or [V_{Unacc}-**s**...] , the transitive v^* in these structures are phonetically null, i.e., [$\emptyset$ -V_{Unacc}...] or [V_{Unacc}- $\emptyset$...]. Then we are led to assume that the transitivizer v^* in Amharic and the two East Cushitic languages has two allomorphs: **-s** or $\emptyset$ in East Cushitic; **a-** or $\emptyset$ in Amharic. With this allomorphy approach, we can have a possible perspective on the presence of a composite of two derivational morphemes, **a-s-** and **-s-s**, in the verbal complex of the causative structures in question (cf. the right-hand side examples in 58); the transitive v^* that remains null in the left-hand examples gets in the right-hand examples realized as **a-** in Amharic and **-s** in Cushitic, and form a morphological complex with the causative **-s** as **a-s-** in Amharic and **-s-s** in Cushitic. This is depicted in (59).

- | | | | |
|--|---|---|-----------|
| (59) a. nak- $\emptyset$...
drink-Trs...
'A to drink B' | → | b. nak- s -(ii) s ...
drink-Trs-Caus...
'A to make B drink C' | (Afar) |
| c. dug- $\emptyset$...
drink-Trs...
'A to drink B' | → | d. dug- s -(ii) s ...
drink-Trs-Caus...
'A to make B drink C' | (Oromo) |
| e. $\emptyset$ -täṭa-...
Trs-drink

'A to drink B' | → | f. a-s -täṭa-...
Trs-Caus-drink

'A to make B drink C' | (Amharic) |

Based on this line of thinking, I claim that v^* in Afar and Oromo can be phonetically realized either as **-s** or $\emptyset$. In Amharic, it is realized three ways: it is **-s-** as causative; as

transitive, it is either **a-** or $\emptyset$.

- (60) a. v^* in Afar and Oromo: **-s** or $\emptyset$
 b. v^* in Amharic: **a-**, **-s-** or $\emptyset$

In the next section, I will build a complete set of morpho-syntactic analyses of the different phonological realizations of v^* in the morphological transitive and causative constructions in Amharic, Afar and Oromo based on the sets of allomorphs in (60), the syntactic structures in (57) and some ideas from Distributed Morphology regarding the phonological realizations of abstract or functional morphemes.

2.7.4 The selection of exponents of v^*

Let us adopt a basic idea from Distributed Morphology, *Late Insertion*: phonological content for a morpheme or a word is inserted after syntax. The phonological spell-out, or vocabulary insertion of v^* , along with those of all other morphemes and words, awaits the completion of syntactic composition. We will also adopt the idea from Embick (2003) and Bhatt and Embick (2004) that a functional element, v , may have different phonological exponents depending on the morpho-syntactic environments around it (for similar approaches for the various phonological realizations of v^* in other languages, see Embick 1996 on Hupa, Miyagawa 1998 on Japanese, Lidz 1998 on Kannada). Thus, from a Distributed Morphology perspective, allomorphs are members of a set of different phonological exponents realized for the same morpheme.

The selection of an exponent for a morpheme is determined by its morpho-syntactic environment. For example, the same morpheme, α , can be realized with Exponent1 in Syntactic Environments A and B while it is realized with Exponent2 in Environment C.

For the case of v^* , I claim that its morpho-syntactic environment can be shaped differently based on the two factors in (61) in a syntactic environment as in (62).

- (61) i. whether it is selected by another v^* or not (cf. 62i)
 ii. its structural proximity to its Root (cf. 62ii): v 's proximity to its Root is either local, directly selecting its Root, or not local, being separated by another v^* from its Root. Let us call the former *inner* and the latter *outer*.

	... X	$[_{v^*P} v^*$	$[_{v^*P} v^*$	... Root ...
(62) (i) Selected by:		X	v^*	
(ii) To its Root:		<i>outer</i>	<i>inner</i>	

Form this perspective, the derivational morphemes that introduce an external argument in Amharic, Afar and Oromo are all realizations of v^* . They can be realized with different phonological exponents depending on their different morpho-syntactic environments. Therefore, Hayward's puzzle that there is an apparent morpho-syntax mismatch observed in the morphological transitive and causative constructions in Amharic and East Cushitic, the mismatch between the number of agent arguments and the number of derivational morphemes is not really a mismatch. It is an illusion on the surface that is caused by the fact that $\emptyset$ can be selected for v^* in a certain structural environment. In the following section, we will see how different structural environments created by the structural factors in (62) induce the selections of the different phonological exponents in each language.

2.7.5 The selection of exponents of v^* as a causativizer

The causative occurrence of v^* in all three languages seems to be always realized as *-s*. We have seen that the derivations of *derived* transitives from unaccusative stems and the causative of such *derived* transitives in turn involve the incremental applications of *-s* in the Cushitic languages and *a-* and *-s* in Amharic. Thus, we know that the causative v^* in the constructions built on this type of transitive structures is realized as *-s* uniformly, as

shown with a circle around them in (63). It is not immediately obvious exactly which occurrence of the *-s* suffix is actually the realization of the causative element. I will assume that the linear order reflects the merge order in Oromo.⁴

(63) v^* in the causative of *derived* transitives

<u>The Base</u>		<u>The Causative</u>	
a. Stem _{Unacc} -s	→	b. Stem _{Unacc} -s-(s)	(Afar and Oromo)
c. <i>a</i> -Stem _{Unacc}	→	d. <i>a</i> -(s)-Stem _{Unacc}	(Amharic)

As for the causative of *underived* transitives and unergatives, we have already claimed that a string of two derivational morphemes that appears in such causative constructions is a complex of Trs and Caus. For Amharic, the transitive and causative occurrences of v^* are morphologically differentiated. Thus, we can simply say that the causative v^* is realized as *-s-* also in the causative of underived transitive and unergative stems. In Afar and Oromo, one of the two occurrences of the *-s* suffix is the causative occurrence of v^* and, again, assume, just as for the *derived* causative, that the *-s* suffix that is attached outside is the causative occurrence. Thus, also for the causative of underived transitives and unergatives, I claim the causative occurrence of v^* is realized as *-s* in the three languages as in (64).

(64) v^* in the causative of *underived* transitives and unergative

<u>The Base</u>		<u>The Causative</u>	
a. Stem	→	b. Stem-s-(s)	(Afar and Oromo)
c. Stem	→	d. <i>a</i> -(s)-Stem	(Amharic)

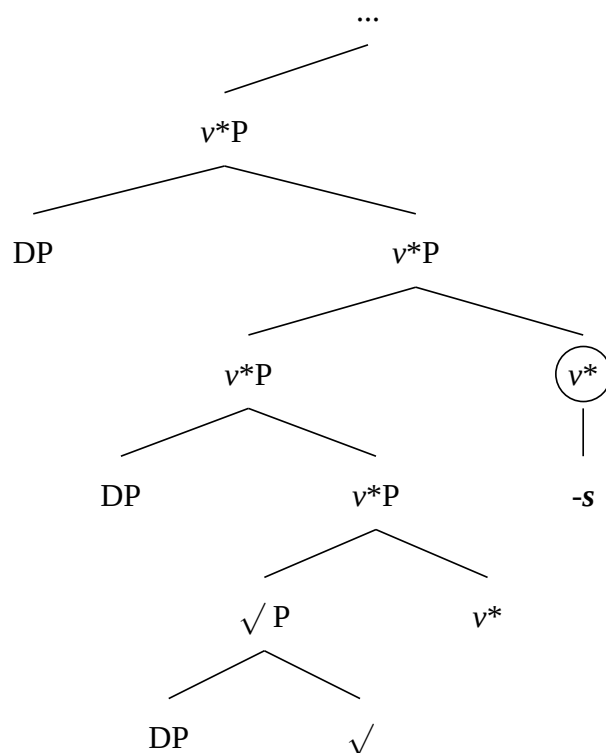
The causative v^* is realized as *-s* in both morphological types of causative structures. Thus, we can say that the causative occurrence of v^* is *always* realized as *-s* in the

4

For issues of morpheme order see §2.9

morphological transitive and causative constructions in Amharic, Afar and Oromo. We can generalize the realization rule for the causative v^* by using the morpho-syntactic structural factor in (62ii), i.e., v 's structural proximity to its Root (65). Since the process of causativization, as opposed to that of transitivity, seems to always apply to a verbalized element, we can say that the causative v^* is the *outer* v^* .

(65) The Outer: $v^* \leftrightarrow -s$



(65) means that the causative occurrence of v^* is the *outer* occurrence of v^* , outer in the sense that it is separated from its Root or not local to its Root. In Amharic, and Afar and Oromo, v^* that occurs in the *outer* position is always spelled out as *-s*.

2.7.6 The selection of exponents of v^* as a transitivizer

The next question is the determination of a phonological exponent for v^* that occurs as a transitivizer. We have adopted the idea that subjects of all transitive verbs, no

matter whether they are morphologically *derived* or *underived*, are always introduced into the argument structure with the aid of v^* . This means that v^* is present in the argument structure of all transitive verbs. However, in Amharic, Afar and Oromo, a phonological realization of v^* , **a-** and **-s**, occurs only with a certain type of transitive verbs, namely, morphologically *derived* transitives. This means that, with *underived* transitive or unergative stems, it is not phonologically realized. Instead, $\emptyset$ is selected. The two types are shown as schematic structures in (66).

(66) Transitive Markers

- | | |
|----------------------------------|--|
| a. <u>The Boil Type</u> | b. <u>The Drink Type</u> |
| stem _{Unacc} - s | stem _{Trs/Unerg} -(*s / $\sqrt{\emptyset}$) (Afar and Oromo) |
| a -stem _{Unacc} | (*a / $\sqrt{\emptyset}$)-stem _{Trs/Unerg} (Amharic) |

The same type of differentiation is also made between the two English words *destroy* and *grow*. It is a pair of English verbs that Chomsky (1970) discusses. Marantz (1997) builds a perspective on the discussion that a Root can come with a specification for agentivity. '[T]he agent of *destroy* is somewhat implied by the root' while the agent of *grow* is not. Consider the difference between the nominalization facts of the two expressions in (67&68).

- (67) a. that John destroys the city
 b. John's destruction of the city
 c. the city's destruction
- (68) a. that John grows tomatoes
 b. *John's growth of tomatoes
 c. the tomatoes' growth

Both the agent and patient arguments of *destroy* can become the genitive possessor of its nominalized counterpart, *destruction*, while only the patient argument of intran-

sitive *grow* can be the possessor of nominalized *growth*. This is because the agent of *destroy* is implied by its root even before the process of verbalization of the root. On the other hand, the agent of *grow* is not implied by the root. Assuming the process of nominalization to be a direct syntactic process applied to a root, the nominalized expression of a root, $\sqrt{\text{DESTROY}}$, would include agent implication while that of $\sqrt{\text{GROW}}$ would not. The difference between the two expressions is reflected in the fact that the agent subject of *destroy*, which is also an implied agent of its root before the verbalization, can be realized as the possessor of the nominal expression (cf. 67) while the agent subject of *grow*, which is not an implied agent of its root before verbalization, cannot be the possessor of its nominal version, *growth* (cf. 68).

I take a similar implication by roots, the requirement of having an external argument, to be also the factor in our languages that differentiate the two types of transitive verbs as in (66). I will refer to roots with such an implication as an *ext-argument root*. With this said, we are now in a position to describe the determination of a phonological exponent for v^* as a transitivizer as in (69).

(69) The Inner:

- a. $v^* \leftrightarrow \emptyset/$ with a ext-argument root

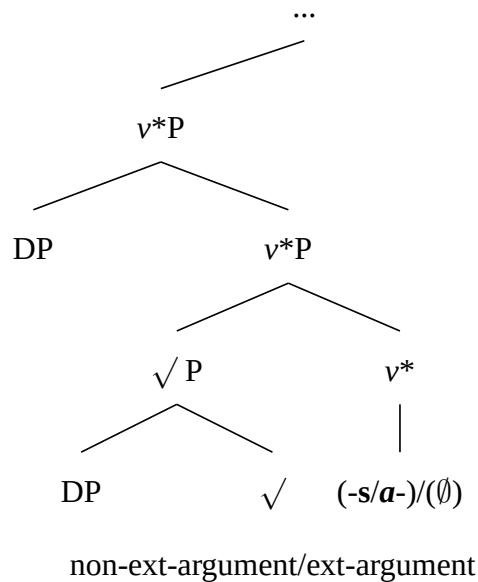
5

- b. i. $v^* \leftrightarrow -s/$ with a non-ext-argument root (Afar and Oromo)

- ii. $v^* \leftrightarrow a-/$ with a non-ext-argument root (Amharic)

5

It has been suggested by Robert Fiengo (p.c.) that if the type of transitive verbal expressions that do not appear with *-s* is considered to be decomposed as $v^*-\sqrt{}$, I would not need to claim that there is v^* that is null. However, this view is not available under the assumption that I subscribe to: all transitive verbal expressions are verbalized from a root by the aid of v^* . Also, if it is the case that there is no transitive element merged with the type of transitives that do not show *-s*, the appearance of the transitivizing element in the causative constructions (cf. 59) would not be accounted for.



Recall that there is another environment in which transitivizer v^* is realized as **a-** in Amharic and **-s** in East Cushitic, independently from the rules in (69). It is the transitive v^* that co-occurs with the occurrence of the causative v^* in the causative of *underived* transitive and unergative structures. We have just described that the v^* of the *underived* transitives and unergatives that is the v^* of an root requires an external argument and it always remains null (cf. 69b). Thus, the occurrence of the causative v^* seems to be the sole reason for the phonetic realization of the transitive v^* as **-s**, and this apparently overwrites the rule in (69a). This phenomenon can be related to the structural relationship between the two v^* 's. We can formalize the present case of the spell-out of the v^* as in (70).

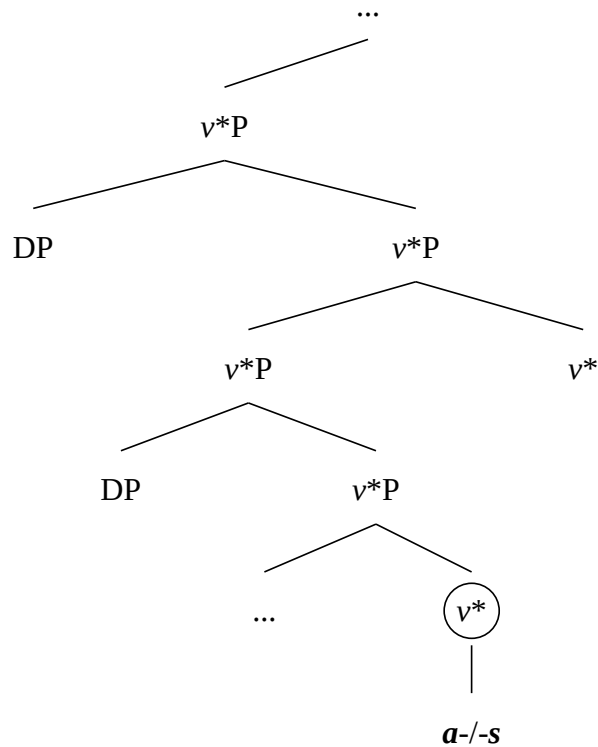
(70) The Inner:

- i. $v^* \leftrightarrow \text{-s/}$ selected by v^* (Afar and Oromo)⁶

6

Marcel den Dikken points out (p.c.) that there are no data in the discussion that suggest that an analysis of the morphological transitive/causative these languages has to be post-syntactic. I agree with him on the point. For example, an analysis for the phonological realizations of the transitive occurrence of v^* does not have to be post-syntactic. The distinction between the different realizations of the v^* can be present in syntax. For example, the different realizations of the inner v^* can be related to the outer v^* 's

- ii. $v^* \leftrightarrow \mathbf{a-}/$ selected by v^* (Amharic)



Simply adding (69) and (70), we will get a complete set of exponent rules for the selections of a phonological exponent for the transitive v^* in Amharic, Afar and Oromo as in (71).

(71) The Inner:

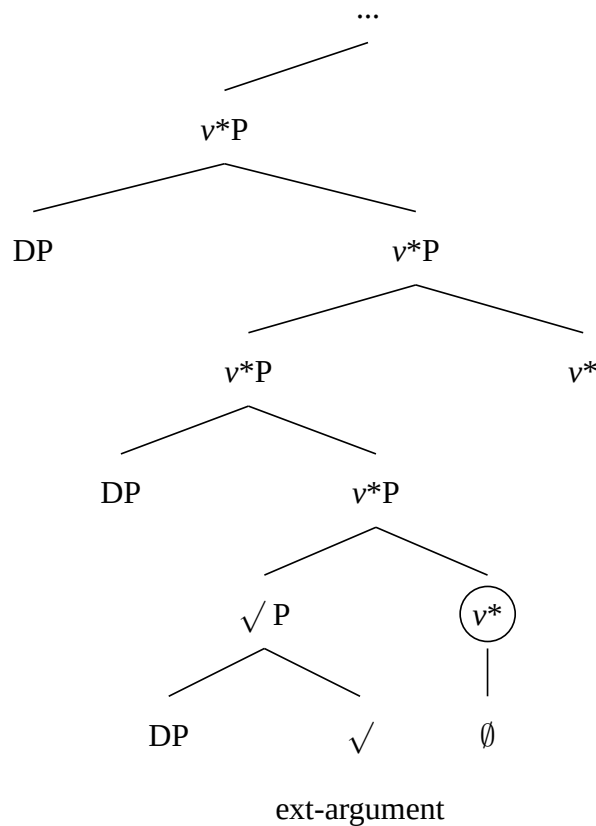
- a. $v^* \leftrightarrow \emptyset/$ with an ext-argument root
- b.
 - i. $v^* \leftrightarrow \mathbf{-s}/$ with a non-ext-argument Root (Afar and Oromo)
 - ii. $v^* \leftrightarrow \mathbf{-a-}/$ with a non-ext-argument Root (Amharic)
- c.
 - i. $v^* \leftrightarrow \mathbf{-s}/$ selected by v^* (Afar and Oromo)
 - ii. $v^* \leftrightarrow \mathbf{a-}/$ selected by v^* (Amharic)

proper government over the inner v^* in a similar way how null complementisers has been claimed to be licensed by the proper government by a verb.

The organization of the rules in (71) indicates that there are two structural environments that induce the selection of *-s*. There is a disjunctive condition for the selection of *-s* for v^* . There also has to be a hierarchy between the two rules, (69a) and (70) or (71a&c). The latter has to overwrite the former in the verbal complex of the causative of *underived* transitive and unergative structures. The story is complicated. There is, however, an alternate way to capture the morphological situation without having the two exponent rules for *-s* and the rule hierarchy. (71) can be revised as in (72).

(72) The Inner:

- a. i. $v^* \leftrightarrow -s$ (Afar and Oromo)
- ii. $v^* \leftrightarrow \mathbf{a-}$ (Amharic)
- b. $v^* \leftrightarrow -\emptyset$ with an ext-argument root and not selected by v^*



The reformulation in (72) indicates that the selection of $\emptyset$ is induced only in one marked morpho-syntactic environment. (72) takes **a-** in Amharic and **-s** as the unmarked or default exponent for v^* in the East Cushitic languages. Also, there is no need of a hierarchy between rules. With (72), we can avoid the undesired complication.

2.7.7 The phonological spell-out of v^* in Oromo and solving the puzzle

Combining the exponent rule for the *outer* v^* in (65) and the ones for the *inner* in (72) together, we can describe the determination of a phonological exponent of v^* in East Cushitic and Amharic entirely as in (73&74).

(73) East Cushitic

The Inner:

$v^* \leftrightarrow \text{-s}$

$v^* \leftrightarrow \emptyset$ / with an ext-argument root and not selected by v^*

The Outer:

$v^* \leftrightarrow \text{-s}$

(74) Amharic

The Inner:

$v^* \leftrightarrow \text{a-}$

$v^* \leftrightarrow \emptyset$ / with an ext-argument root and not selected by v^*

The Outer:

$v^* \leftrightarrow \text{-s}$

The total pictures given in (73-74) confirm that the reformulation of the rules in (72) is on the right track. The *outer* v^* is uniformly realized as **-s**. It is a realization of the default exponent, **-s**, of v^* . If the exponent rule for the outer v^* is added to the

set of the rules in (71), the situation only gets more complicated. There would be three different conditions for the realization of *-s* altogether in Cushitic.

Now, with the rules in (73-74), let us go back to the puzzle: the apparent mismatch between the number of processes that add an external argument to the argument structure and the number of morphemes that are introduced by such processes. From a perspective based on the set of exponent rules in (73-74), the puzzle is nonexistent. When there is an external argument in the argument structure, there is always an element introducing the external argument: *v**. Thus, even in the problematic cases for Hayward's observation as in (8d&f), the transitive *v** in the structures of underived transitive and unergative, where there seems to be no accompanying external-argument-marking element, *-s*, there actually is *v**. However, it is not pronounced due to its morpho-syntactic environment. The presence of the transitive *v** seems to be confirmed because the same element is phonetically realized when it is causativized by another application of *-s* in the verbal complex. It is realized as *-s* along with the causative *v**, the outer *v**. Thus, the apparent puzzle is just a consequence of the fact that the argument-introducing *v** in these languages can be either null or realized as *a-* in Amharic and *-s* in Cushitic based on its different morpho-syntactic environments. The puzzle disappears.

2.7.8 A problem: the *as*-causative with an unaccusative expression

There is one crucial question that remains to be answered for the segmenting approach I have suggested in this chapter for the Amharic *as*-causative expressions. It is regarding the *as*-causative expressions whose causativized event is interpreted as unaccusative such as the one in (32) (repeated in 75).

- (75) aster qəbe-w-ən *as*-qällät-äčč-əw
 Esther butter-Def-Acc *as*-melt-Sub.3FS-Ob.3MS
 'Esther made the butter melt'

The problem of this type of **as**-causative expressions for my segmenting approach is that it is not clear why the transitive **a**- is present in the morphological structure while the causativized expression is not transitive. On the other hand, for the unsegmenting **as**- approach, it is not a problem. The causative element itself can be realized as **as**- and the lack of v^* is not an issue. My analysis is forced to say it is a phonological realization of something else than v^* . Based on the idea that all verbal expressions have a verbalizing functional element v , I can still assume that the **a**- in the morphological complex, **as**-, is a realization of v , but not v^* that necessarily introduces an external argument.

The morpho-syntactic study conducted in this chapter concentrates on the distributions of v that introduces an external argument: v^* . However, in this context, my analysis has to include one phonological realization of v that does not introduce an external argument. In Amharic, v is not realized with unaccusative expressions (cf. 76). Based on the set of data, we can formalized a set of phonological realization rules for v in Amharic as in (77).

(76) Unaccusative

- a. qəbe-w qällät-ä
butter-Def melted-Sub.3MS
'The butter melted'
- b. wəha-w fälla-∅
water-Def boiled-Sub.3MS
'The water boiled'

(77) Amharic

$v \leftrightarrow \mathbf{a-}$ / selected by v^*

$v \leftrightarrow -\emptyset/$ (default)

At present, I do not have Cushitic data that would allow me to determine whether the Cushitic [V-s-s] expressions can also be interpreted as the causative of unaccusative.

However, I hope to explore these issues of the causative of unaccusatives in my future research along with the morpho-syntactic study of *v* in general, i.e., *v* with or without the introduction of an external argument, in the languages I have covered in this chapter.

2.8 Diachronic and Comparative Perspectives

The approach this chapter proposes offers a uniform account for the distributions of the relevant derivational morphemes in Amharic, Afar and Oromo. This is apt especially since I have assumed a language contact hypothesis whereby the causative element *-s-* has been adopted into the grammar of an Ethio-Semitic language that came to be known as Amharic today. The question is: how could this have happened?

There is a possible socio-political background for the strong influence of the Cushitic languages on an Ethio-Semitic. Starting from as early as the mid-fourth century, military expeditions from the Semitic-speaking Aksum Empire, located in the northern region of Ethiopia, are reaching the Cushitic speaking region in the south. This region later became the Amharic speaking area. Around the turn of the tenth century A.D., the Zagwe dynasty (in Ge'ez, *ze-Agwe* means 'of-Agaw'; Agaw is the name for one of the Cushitic language groups that is still spoken in Ethiopia today) overthrew the local Aksum power. Bender and Hailu Fulass (1978) speculates that during the period until the rise of the Zagwe dynasty, there was a linguistic situation in which the official language of the Aksum Empire was spoken as a lingua-franca by the speakers of different Cushitic languages who composed of the majority of the population of the southern part of the Aksumite Empire.

We have seen that in an older Ethio-Semitic language, Ge'ez, the [*'a*-V] morphological expressions can be ambiguously interpreted as the derived transitive or the causative (cf. 35&36).

For native speakers of Cushitic languages, like Afar and Oromo, it could have been very difficult or even less tolerable to have the same morphological structure for two different meanings because in their native tongues, the derivations of transitive from unaccusative verbs and causatives are morphologically differentiated, i.e., [V-s] and [V-s-s]. It is not unthinkable that these speakers avoided this ambiguous situation by adding the causative morpheme, -s, from their native languages. This is the Cushitic speakers' error in their acquisition of a Ethio-Semitic language, which initiated the change in the causative morphology of Amharic (cf. 'errors-in-acquisition': Kroch 2005). The -s brought into Amharic seems to have more of a chance to be an occurrence of the causative v^* , because the combination of V and one morpheme is always a derived transitive construction in the Cushitic languages like Afar and Oromo. Thus, it is natural for Cushitic speakers to analyze the Ethio-Semitic [α -V] expressions as a derived transitive but not as a causative expression. Thus, the causative expressions are altered, or hyper-corrected, by addition of their Cushitic element as [α -s-V]. This second language speakers' error eventually is stabilized in grammar of Amharic.

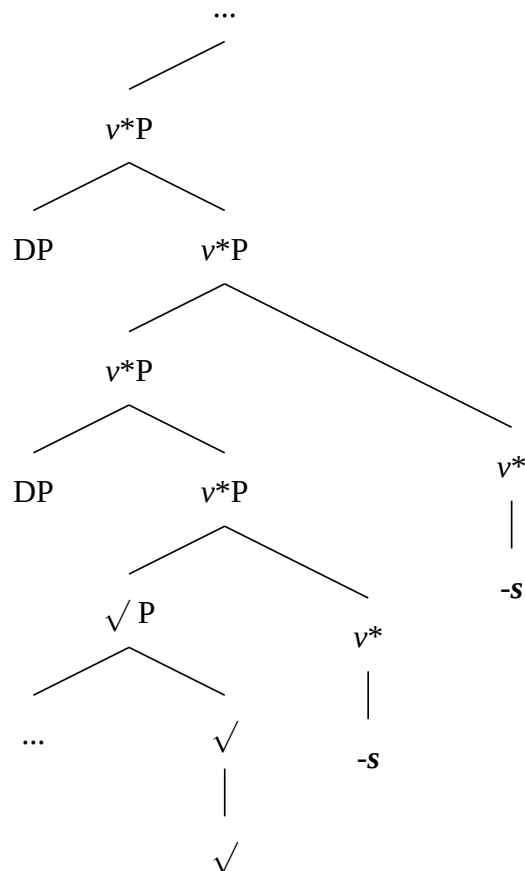
2.9 Leslau's Puzzle: the Morpheme Order Difference

The distributional patterns of the derivational morphemes themselves are accounted for by my analysis. However, there are differences between the morphologies of the derived verbal expressions of Amharic and the two East Cushitic languages. To begin with, the -s- causative element that is shared by Amharic and East Cushitic has been claimed to the identical morphological realization of v^* . Nonetheless, there is a robust difference between the elements in Amharic and Cushitic. It is the puzzle that Leslau (1945) has noted. The causative -s- is suffixal in Cushitic while it is affixed to the verb stem in Amharic as depicted in (78).

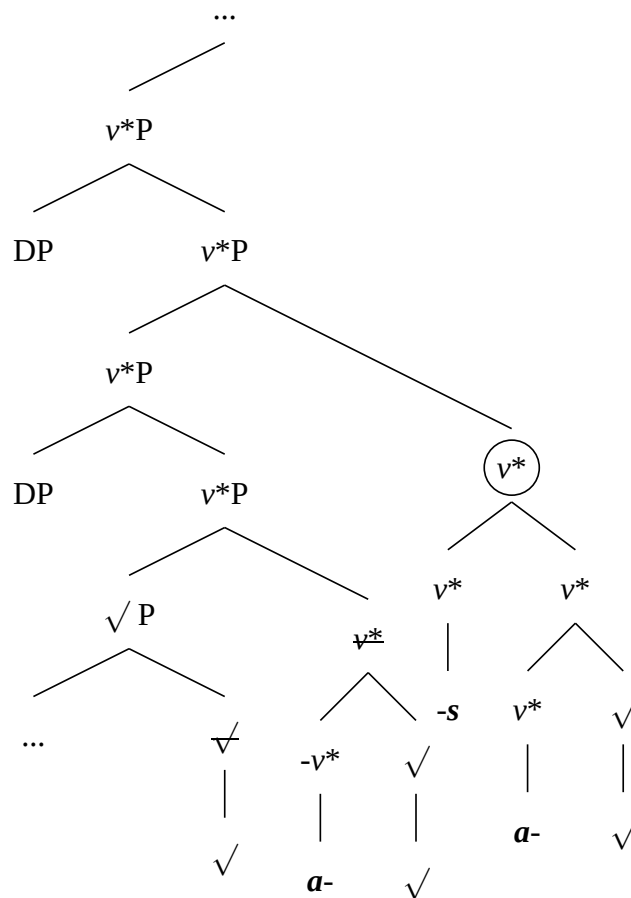
- (78) a. V-**s**(Trs)-**s**(Cs) (Cushitic)
 b. **a**(Trs)-**s**(Cs)-V (Amharic)

How does this happen while causative **-s** is claimed to be the same element? The placement of causative **-s** is not the only difference in the verbal morphologies of Amharic and East Cushitic. The whole complex of derivational suffixes is on the left-hand side of the verbal stem in Amharic while it is placed on the right-hand side in Cushitic. This difference can be a consequence of the fact that the verb root does not move in Cushitic while it does in Amharic, as given with tree structures in (79).

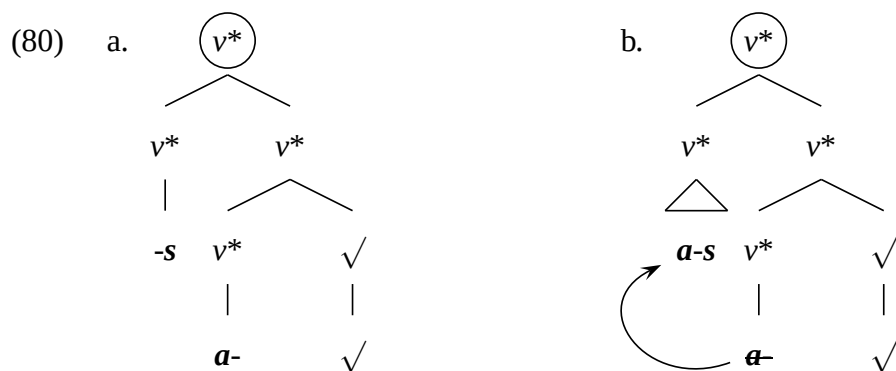
- (79) a. East Highland Cushitic



b. Amharic



The presence of verb root movement would give us the desired order between the verb root and the composite of the derivational morphemes for Amharic (79a). However, the head movement itself cannot derive the exact morpheme order in Amharic where the causative morpheme is placed between the transitive head and the verbal root, i.e., [a-s-V]. Thus, from our perspective, there should be an extra operation that causes reordering of the transitive and causative morphemes as in (cf. 80).



How does this operation happen? Before answering the question, one aspect that we can observe is that, in this morphological structure, the causative *-s* morpheme can be taken to be *suffixal* with respect to the transitive morpheme, i.e., [*a*←*s*...]. This observation should remind us of Leslau's puzzle, in which the causative *-s-* is suffixal in Cushitic while it is prefixal in Amharic. Actually, this point can give us a perspective on the different morphological orders between Amharic and East Cushitic based on a diachronic account.

We have assumed that the *-s* causative morpheme has been adopted from Cushitic to Amharic. In the Cushitic languages, this morpheme is suffixal. Its suffixality might have been retained even after it was transmitted to Ethio-Semitic. The suffixality of *-s* is supported in the morphological environment of the Cushitic verbal domain where verb stems do not move as in (79a). However, in the new context, the verbal domain of an Ethio-Semitic language, it cannot be supported because the verb moves to the right edge as in (79b). The suffixal *-s* causative morpheme would not find its morphological host. It is rescued by an extra operation as in (80). To say that Cushitic *-s* is suffixal means that an exponent, *-s*, for *v** is suffixal from a Distributed Morphology perspective. Under *Late Insertion*, morphemes and roots before spell-out do not have a phonological content. As a result, the suffixality of *-s* is also introduced into the structure after spell-out. It follows that the operation that needs to take place between *-s* and *a-* in Amharic is an operation after syntax, a type of operation known as Morphological Merger (cf. Marantz (1988))

With this approach, we have a possible answer to Leslau's puzzle. The answer is that the causative *-s* is suffixal both in East Cushitic and Amharic. It is prefixal with respect to the verb stem but it is suffixal to the element that is on the left side, namely transitive *a-*. The different placement of it is due to the fact that *-s* is morphologically hosted by the [*V-s_{Trs}*] complex in Cushitic while it is hosted by the transitive element,

a- as [**a-s-V**] in Amharic.

2.10 Alternative approaches for the Amharic *as-* causative elements

The segmenting approach proposed for the *as-* causative expression in this chapter was based on the fact that the presence of **a-** is not accepted in the morphological structure for the causative of *derived* transitive expressions as in (81b) and diachronic observations based between the transitive and causative constructions in Cushitic and Ethio-Semitic languages.

- (81) a. **a-** V_{stem}
Trs-V
- b. **as-(*a-)** V_{stem}
Caus-Trs-V

From the perspective given by an approach that does not segment *as-* as **a-s-** the morphological structure in (81b) is not expected while for my segment perspective (81b) is not problematic.

However, with the idea that a v^* can include a null phonological realization, an approach with non-segmented causative *as-* can claim that the transitive occurrence of v^* is realized as $\emptyset$ with the causative *as-*.⁷ Thus, putting diachronic arguments on the side, with non-segmented *as-*, a possible set of phonological realization rules for the Amharic transitive/causative expressions can be formalized as in (82).

(82) Amharic

The Inner:

7

I thank David Embick (p.c.) for reminding me of this point and suggesting that I evaluate different possible combinations of exponents for the realization of v^* for the Amharic *as-* morphological causatives from a purely synchronic perspective.

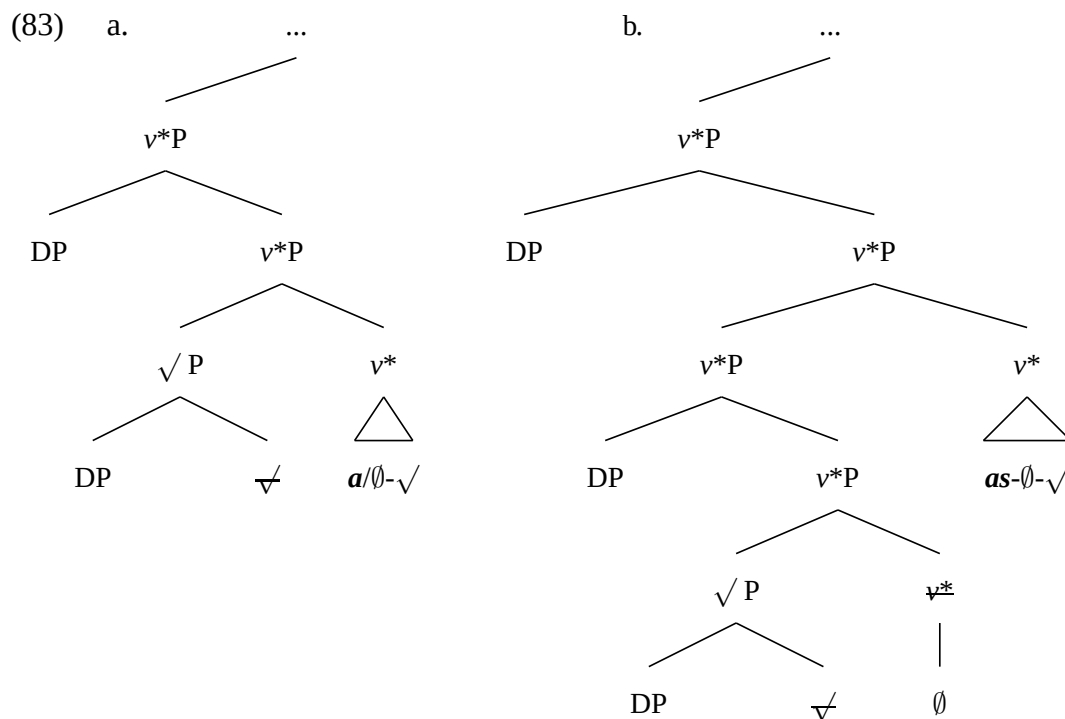
$v^* \leftrightarrow \mathbf{a-}$ with an ext-argument root and not selected by v^*

$v^* \leftrightarrow \emptyset$

The Outer:

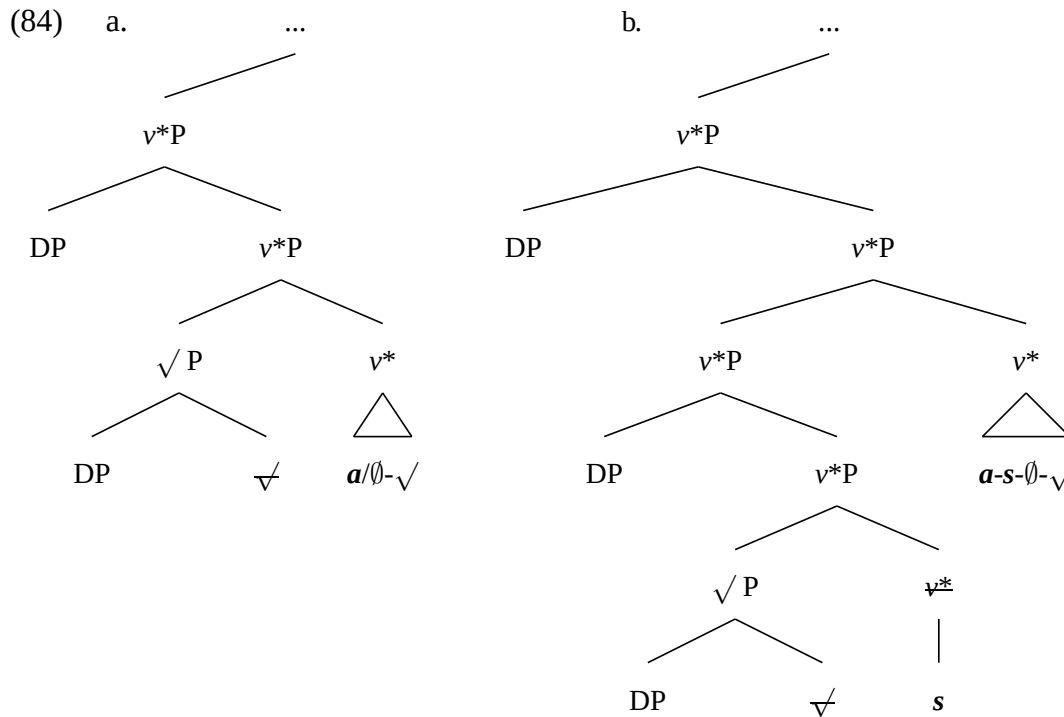
$v^* \leftrightarrow \mathbf{as-}$

One aspect about this approach that is advantageous is that the morpheme order is derived straightforwardly by the movement of the verb root itself (cf. 83).



The structures of transitives and causatives are given in (83). In each structure the desired morpheme orders are derived by the verb movement.

Yet another logical possibility exist: that is to interpret the morphological segment, **a-s-V**, as faithfully to the expected morpheme order, Caus-Trs-V. With this approach, the tree structure of the morphological transitive end causative expressions can be formed as in (84).



The set of phonological realization rules can be formulated as in based on the **a**(=Caus)-**s**(=Trs)-V perspective as in (85).

(85) Amharic

The Inner:

$v^* \leftrightarrow \mathbf{a-}$ with an ext-argument root

$v^* \leftrightarrow \emptyset/$ with a non-ext-argument root

$v^* \leftrightarrow \mathbf{s-}$ selected by v^*

The Outer:

$v^* \leftrightarrow \mathbf{a-}$

In (85), there are three rules for the realization of the inner v^* and the situation is more complex than the **as-** approach or the segmenting **a-s-** approach that is proposed in this chapter predict. Besides the three-way realization for the inner v^* , **a-** is listed both as Caus and Trs in (85).

With respect to the simplicity of the set of rules, the *as-* approach and the *a-s-* approaches are equal. However, there are data that possibly support the *as-* approach. That is the *as*-causative of unaccusative expressions (cf. 86).

- (86) aster qəbe-w-ən *as*-qällät-äčč-əw
 Esther butter-Def-Acc *as*-melt-Sub.3FS-Ob.3MS
 ‘Esther made the butter melt’

It is a problematic case for the segmenting *a-s-* approach because the *a-* of *a-s-* could not be found as *v* that introduces an external argument, *v**, in the structure. Instead, I assume that in the *as*-causative of unaccusative expressions, the *v* that does not introduce an external argument is realized as *a-*. On the other hand, for the unsegmenting *as-* approach, it is not a problem. The causative element itself can be realized as *as-* and the lack of *v** is not an issue.

Thus from a perspective based only on the synchrony of the Amharic morphological transitive and causative expressions, the *as-* approach is sufficient. However once the diachronic situation is added to the discussion, the segmenting approach can explain more. For example, we have observed that in an older Ethio-Semitic language, Ge‘ez, the [*a*-V] expressions occur as morphological transitive or causative expressions. Assuming that Amharic has been influenced heavily by Cushitic languages and *-s* is a Cushitic element, it would mean that Amharic only augmented its morphological causative as [*as*-V] leaving the transitive [*a*-V] as it is.

However, synchronically speaking, it still holds that the formulation of exponent rules that includes *as-* as an exponent for the outer or causativizer *v** for the Amharic morphological expressions serves better. I would interpret this situation as follows. The set of realization rules formulated by the unsegmented *as-* approach (cf. 82) might capture the morphological affairs of the Amharic morphological transitive and causative. However, historically, it should have gone through the stage at which the morphologi-

cal affairs of these expressions should be depicted by the set of rules proposed by the segmenting **a-s** approach.

We have observed that the **as-** approach delivers the expected morpheme order without an extra morphological operation after syntax (cf. 83) that is unlike the **a-s-** approach (cf. 79&80): the right order, **a-s-**, has to be derived by the reordering of the two element. Based on this difference between the two approaches, we can speculate that the reordered unit, **a-s-**, seems to have reanalyzed as a singleton exponent for the outer or causative occurrence of v^* in the last stage.

2.11 Conclusion

This chapter developed an analysis of the derivational morphemes in Ethio-Semitic Amharic, East Highland Cushitic Afar and Oromo based on a perspective of Distributed Morphology. The derivational morphemes are the transitive **a-** and the causative **as-** of Amharic and the transitive/causative **-s** from Cushitic Afar and Oromo. Based on the lack of the $*[as-a-V]$ morphological structure in the causative of derived transitive expressions in Amharic, I have claimed that the Amharic causative **as-** morpheme is segmented as transitive **a-** plus causative **-s-**. The affix **-s-** does not occur by itself as a verbal morpheme in Amharic. However, in Cushitic languages, it is frequently utilized as a transitive/causative morpheme. I assumed that causative **-s** has been adopted into Amharic via language contact.

Close observation of the distributional patterns of these morpheme indicates that, in Amharic, Afar and Oromo, not all transitive expressions realize their transitive morpheme: *underived* transitive expressions do not. However, when the expressions are causativized by the application of **-s**, the transitive morpheme is also realized, i.e. $[V_{Trs}-s-s...]$. This is the mismatch Hayward (1976a) and (1976b) has observed. In

other words, it is the mismatch between the number of the derivations and the number of the derivational morphemes in the structure. Hayward (1976a)'s approach based on the correlation between the the number of the agent argument present in the structure and the number of the morpheme added to the verbal complex does not account for the lack of the transitive morpheme in the derived transitives. Dubinsky et al. (1988) approached the set of data from the Oromo causatives from a Relational Grammar perspective. For them the number of *-s* suffixes indicates the number grammatical subjects. Their approach only concerns morphological causatives in Oromo. However, once the structures from Amharic are added to the set of explananda, their approach faces a problem. This is because their approach does not differentiate the transitive and causative morphemes. In Amharic, however, a phonological difference between *a-* and *-s-* is made for the transitive and causative morphemes.

This chapter proposed an analysis based on Distributed Morphology, in which the same functional element can have different phonological exponents in different morpho-syntactic environments. My analysis shares a similar idea with Hayward (1976b) in that Cushitic *-s* and Amharic *a-* are phonological exponents of v^* that introduces an external argument, v^* . It also shares Dubinsky et al. (1988)'s idea that the phonological realization of v^* is determined by the structural environment. The morpho-syntactic environment for v^* can be differentiated based on the three factors: (i) whether it is selected by another v^* or not; (ii) its structural proximity to its Root, *outer*/causative or *inner*/transitive; (iii) directly selecting an ext-argument root. Based on these factors I gave Vocabulary Insertion rules for v^* in Amharic, Afar and Oromo: The *outer* v^* is *-s* and the *inner* v^* is *-s* in Cushitic and *a-* in Amharic unless it is $\emptyset$ when it selects an agentive root and is not selected by v^* . Although Cushitic causative *-s* is shared by Amharic, it is suffixal to the verb stem in Cushitic while it is prefixal in Amharic. I have related this to a difference in the distribution of V-movement between Amharic

and Cushitic: In Amharic the verb stem moves. The causative **-s** would not be morphologically supported in the resultant head composition, i.e. [**-s-a-V...**]. Thus, an extra morphological operation between the two morphemes saves the structure, i.e. [**a↔s-V**].

Chapter 3

Object Agreement

Amharic is a language that realizes an agreement morpheme in the verbal complex which agrees with the ϕ -features of an object noun. This chapter studies the different object agreement phenomena in Amharic. In Amharic, the ϕ features of a direct object or an indirect object can agree with an object agreement morpheme.

However, a direct object and an indirect object are not treated equally with respect to object agreement: there is a definiteness restriction on a direct object that forms an agreement relation with an agreement morpheme, while the indirect object that is accompanied by an agreement morpheme in the same manner does not have to be definite.¹ I analyze the definiteness restriction on the direct object with reference to its accusative case. I will illustrate that there are different types of object agreement structures for indirect objects. This chapter is a preface for the next chapter, in which the control of object agreement by an applied object will play an important role in my analysis of applicative constructions in Amharic.

¹

In Yabe (2001), I studied and analyzed the object agreement phenomena in Amharic and treated them in a uniform manner. I was not aware at that time of the difference between the control of object agreement by direct and indirect objects with respect to a definiteness restriction.

3.1 Object agreement and a direct object

The direct object of a transitive verb can form an agreement relation with an object agreement morpheme in the verbal complex if the object is definite (cf. 87) and marked with the accusative case morpheme *-n*, as in (88).

- (87) a. aster doro arräd-äčč(*-at)
 Esther hen butchered-Sub.3FS(-Ob.3FS)
 ‘Esther butchered a hen’
- b. aster astämari säddäb-äčč(*-at)
 Esther teacher insulted-Sub.3FS(-Ob.3FS)
 ‘Esther insulted a (female) teacher’
- (88) a. aster doro-wa-*(n) arräd-äčč-at
 Esther hen-Def-Acc butchered-Sub.3FS-Ob.3FS
 ‘Esther butchered the hen’
- b. aster yodit-*(ən) säddäb-äčč-at
 Esther Judith-Acc insulted-Sub.3FS-Ob.3FS
 ‘Esther insulted Judith’

It turns out that a definite direct object noun has to be marked with *-n* even when there is no object agreement in the verbal complex as in (89). Thus, the accusative *-n* obligatory appears with a definite direct object in Amharic. An indefinite direct object cannot appear with *-n*.

- (89) a. dawit doro-wa-*(n) gäza
 David hen-Def-Acc bought
 ‘David bought the hen’
- b. dawit and-it-wa-*(n) gäza
 David one-F-the-Acc he bought
 ‘David bought the one of them (Partitive)’
- c. dawit yodit-*(ən) säddäb-ä
 Dawit Judith-Acc insulted
 ‘David insulted Judith’

- d. dawit əswa-(*n) säddäb-ä
 Dawit her-Acc insulted
 'David insulted her'
- (90) a. *doro-n
 hen-Acc
 'a hen'
- b. *set-ən
 woman-Acc
 'a woman'
- c. *and-it-ən doro
 one-F-Acc hen
 one hen (Partitive)

Grammatical application of accusative *-n* is applied to proper nouns, pronouns or nouns that have a definite morpheme in (89). In Amharic, a partitive expression, that is 'one of them', can be derived by the combination of a numeral, *and*/'one' and a gender morpheme, *and-it* (cf. the *c-* and *d-* examples in 89) (cf. Baye Yimam 1996). Partitive expressions are often claimed to be semantically more specific or referential than simple indefinite nouns, and they are often syntactically treated in a way that is more similar to how definite nouns are treated in some languages (cf. Sportiche 1992 and Anagnostopoulou 1994). In Amharic, a partitive expression has to be suffixed with a definite morpheme in order to be adorned with accusative *-n* (cf. 90c). Thus the *-n* marking has a strict definiteness restriction in Amharic: it has to be proper nouns, pronouns or nouns with a definite article.

Thus there is a definite restriction for the *-n* marking on a direct object. At the same time, it is also the case that a definite noun that appears as a direct object in Amharic has to be marked with the accusative *-n* suffix (cf. 89). The control of object marker is restricted to a definite noun (cf. 87) and the definite noun has to be marked with *-n* (cf. 88).

I claim that there is a close involvement between accusative *-n* and the object agreement morpheme. I assume that the accusative case checker for direct objects is *v* and interpret the required realization of *-n* as follows the accusative case feature on a definite direct object has to be realized as *-n*. Only when *-n* is realized on a direct object, the ϕ -features of *v* can get realized as an object agreement morpheme in the verbal complex for a definite direct object as depicted as in (91).

$$(91) \quad [_S \dots \text{DO-Def-}*(n(=[\text{Acc}])) \dots [_v \dots \text{Agr}_{OB}(=[phi])]]$$

3.2 Object agreement and indirect objects

3.2.1 Object agreement and indirect objects: Type 1

In *give*-type dative (cf. 92) and *adverse* (cf. 93) expressions, their indirect object can form an agreement relation with the same object agreement morpheme that is realized for the direct object of transitive expressions (cf. §3.1).² The paradigms of the agreement morpheme that occurs for the indirect objects of these types of expressions and the direct object of transitive expressions are exactly the same. The paradigm is shown in (94).

- (92) a. dawit lä-aster_i doro-wa-n_j sätt-ä-at_i/*_j
 David lä-Esther hen-Def-Acc gave-Sub.3MS-Ob.3FS
 ‘David gave the hen to Esther’
- b. dawit lä-lejj-očč-u_i mäṣṣhaf-očč-u-n_j läggäs-ä-aččäw_i/*_j
 David lä-child-Pl-Def book-Pl-Def-Acc donated-Sub.3MS-Ob.3Pl
 ‘David donated the books to the children’

2

The triadic constructions are extensively studied with a perspective from the applicative syntax in the next chapter.

- c. (pro.3Pl) lä-dawit_i təleq-u-n šəlləmat_j səlläm-u-ät_i/*ät_j
 (they) lä-David big-Def-Acc prize gave-Sub.3Pl-Ob.3MS
 ‘(they) gave a big prize to David’
- (93) a. lebä-očč-u mulu-n_i borsa-w-ən_j qämm-u-at_i/*ät_j
 thief-Pl-Det Mulu-Acc wallet-Def-Acc robbed-Sub.3Pl-Ob.3FS/Ob.3MS
 ‘the thieves robbed Mulu of the wallet’ (Hailu Fulass 1974: 117, (9a))
- b. lebä-očč-u mulu-n_i borsa-w-ən_j sərräq-u-at_i/*ät_j
 thief-Pl-Det Mulu-Acc wallet-Def-Acc stole-Sub.3Pl-Ob.3FS/Ob.3MS
 ‘the thieves stole the wallet from Mulu’ (Hailu Fulass 1974: 117, (10a))
- c. lebä-očč-u mulu-n_i borsa-w-ən_j
 thief-Pl-Det Mulu-Acc wallet-Def-Acc
 nättäq-u-at_i/*ät_j
 snatched-Sub.3Pl-Ob.3FS/Ob.3MS
 ‘the thieves snatched the wallet from Mulu’ (Hailu Fulass 1974: 117, (11a))

(94) The Object Agreement

	<u>Singular</u>			<u>Plural</u>		
1	V-Sub- ññ	Ob.1S	‘me’	V-Sub- n	Ob.1Pl	‘us’
2	V-Sub- h/k	Ob.2MS	‘you(m)’	V-Sub- ačču	Ob.2Pl	‘you(pl)’
	V-Sub- š	Ob.2FS	‘you(f)’			
3	V-Sub- w/ät	Ob.3MS	‘him’	V-Sub- aččw	Ob.3Pl	‘them’
	V-Sub- at	Ob.3FS	‘her’			

The control of object agreement itself is never a requirement in these constructions. However, as the distributions of the indices indicate, in these expressions, the direct object cannot form an agreement relation with the agreement morpheme (cf. 92&93). Also, in the Amharic verbal complex, only one object agreement is allowed, as shown in (95).

- (95) a. dawit lä-aster_i doro-wa-n_j sätt-ä-at_i(*-at_j)
 David lä-Esther hen-Def-Acc gave-Sub.3MS-Ob.3FS(*-Ob.3FS)
 ‘David gave the hen to Esther’

- b. lebä-očč-u mulu-n_i borsa-w-ən_j
 thief-Pl-Det Mulu-Acc wallet-Def-Acc
 qämm-u-at_i(-*ät_j)
 robbed-Sub.3MPI-Ob.3FS(-Ob.3MS)
 ‘the thieves robbed Mulu of the wallet’ (Hailu Fulass 1974: 117, (9a))

The morphological causative of transitive expressions shows a similar agreement pattern. In the morphological causative expressions as the one in (96), it is always the causee, but not deep object, that forms a relation with an object agreement morpheme. Just as in the *give*-dative and the adverse expressions in (92&93), the deep object cannot be cross-referenced by the agreement morpheme in the presence of the causee. The multiple realization of object agreement is banned in morphological causatives as well (cf. 96).

- (96) dawit yonas-ən_i k^was-u-n_j **a-s**-mäta-(w_i/*_j)(-*w_j)
 David Jona-Acc ball-the-Acc Trs-Caus-hit-(Ob.3MS)(-*Ob.3MS)
 ‘David made Jonas kick the ball’

There is a difference between the object agreement phenomena in the causative and *give*-type dative constructions. The causee that is cross-referenced by object agreement has to be definite while, the goal argument does not. The presence of accusative *-n* on the causee should suggest that the definiteness restriction is applicable as I have claimed as in (91).

3.2.2 Sentential possession

Amharic is a language in which possession can be expressed with an existential expression with a possessor that is cross-referenced by an object agreement. In such possession constructions, as in (97), the possessor seems to be treated morphologically as an object argument. Let us first examine existential expressions that share the same verb root, *all*/‘exist’, with the possession expressions, as given in (97).

- (97) a. makina all-ä
 car exist-3MS
 ‘There is a car’
- b. makina-(w)očč all-u
 car-Pl exist-3Pl
 ‘There are cars’

The existential argument induces subject agreement on the existential expression, *allä* in (97). A possession expression can be built by adding an object to the existential expressions, as shown in (98).

- (98) a. dawit makina all-ä-w
 David car exist-3MS-3MS
 ‘David has a car’
- b. aster makina-(w)očč all-u-čč
 Esther car-Pl exist-3Pl-3FS
 ‘Esther has cars’

The possessor argument is cross-referenced by an object agreement while the possessum argument induces subject agreement. Judging from the fact that the same morpheme is cross-referencing the possessor of sentential possession expressions and the dative argument of *give*-dative expressions, I claim that the possessor argument of *allä* possession expressions is introduced in the structure as an object argument, perhaps a dative argument à la Freeze (1992).

3.2.3 Object agreement, indirect objects and a prepositional suffix:

Type 2

Other types of triadic constructions show a different agreement morphology from that of the *give*-type dative expressions we have just seen. In the verbal complex of these types of triadic constructions, there is an occurrence of a prepositional element, *-il-* or

-bb-, accompanying the agreement morpheme as we have seen in (94).³

In the context of the descriptive grammar of Amharic (cf. Leslau 1968, 1995 and related works), the morphemes **-bb-** and **-ll-** that we saw in the verbal complex of the *b-* and *c-* types of triadic constructions are called *prepositional suffixes* because of the their allomorphy relationship to the prepositional elements, i.e., they are minimally differentiated from their fully prepositional counterparts by the presence of a vowel, *ä*, and the gemination of the consonant: **lä-/ll-** and **bä-/bb-** (cf. Leslau 1968, Leslau 1995). Following the descriptive grammarians, let us call this type of constructions *P-suffix constructions*.

- (99) a. aster **bä**-mätrəgiya-w_i bet-u-n_j
 Esther **bä**-broom-Det house-Det-Acc
 ṭärräg-äčč(-**bb**-ät_i)/(-w_j)
 cleaned-Sub.3FS(-**bb**-Ob.3MS)/(-Ob.3MS)
 ‘Esther cleaned the house with the broom’
- b. **lä**-saba_i gänzäb-wa-n_j wässäd-ku(-**ll**-at_i)/(-ät_j)
 lä-Saba_i money-her-Acc took-Sub.1S(-**ll**-Ob.3FS)/(-Ob.3MS)
 ‘I took Saba her(Esther’s) money’ (Demeke 2003: 83)

In these types of triadic constructions, either the goal or the theme object can be in an agreement relation with an object agreement morpheme. The ban on the realization of multiple object agreements still applies.

The complex of a prepositional element and an object agreement morpheme in the verbal complex of the P-suffixal constructions is unbreakable. The prepositional element has to be suffixed with an object agreement morpheme that is in an agreement relation with the indirect object as depicted as in (100).

3

These types of triadic constructions are extensively studied as applicative constructions in the next chapter.

- (100) a. aster **bä**-mätrəgiya-w_i bet-u-n_j ɬärräg-äčč-**bb**-(^{*}ät_i)
 Esther **bä**-broom-Det house-Det-Acc cleaned-Sub.3FS-**bb**-Ob.3MS
 ‘Esther cleaned the house with the broom’
- b. **lä**-saba_i gänzäb-wa-n_j wässäd-ku-**ll**-(^{*}at_i)
 lä-Saba_i money-her-Acc took-Sub.1S-**ll**-Ob.3FS
 ‘I took Saba her(Esther’s) money’ (Demeke 2003: 83)

We can possibly divide triadic constructions into two types with respect to the presence of a prepositional element that is amalgamated with the object agreement and the ability to allow its clause-mate direct object to be cross-referenced by the object agreement.

3.2.4 The lack of the definiteness restriction

There are different types of triadic constructions with respect to object marking. There is also a similarity shared by the object agreement phenomena of all triadic expressions that we have seen. Unlike the case of the direct object, there is no definiteness restriction on the indirect object that is recalled by an object agreement morpheme, as shown in (101).

- (101) a. dawit lä-and-it set_i doro-wa-n sätt-ä-at_i
 David lä-one-F woman hen-Def-Acc gave-Sub.3MS-Ob.3FS
 ‘David gave the hen to one woman (from a group)’
- b. dawit lä-lejj-očč_i mäṣṣhaf-očč-u-n läggäs-ä-aččäw_i
 David lä-child-Pl book-Pl-Def-Acc donated-Sub.3MS-Ob.3Pl
 ‘David donated the books to children’
- c. (pro.3Pl) lä-astämari_i tələq-u šəlləmat səlläm-u-ät_i
 (they) lä-teacher big-Def prize gave-Sub.3Pl-Ob.3MS
 ‘(they) gave the big prize to a teacher’
- d. aster **bä**-mätrəgiya bet-u-n ɬärräg-äčč-**bb**-ät
 Esther **bä**-broom house-Det-Acc cleaned-Sub.3FS-**bb**-Ob.3MS
 ‘Esther cleaned the house with the broom’

- e. and saw makina all-ä-w
 David car exist-3MS-3MS
 ‘someone/(one person) has a car’

Let us compare the ungrammatical cases of transitive expressions that realize an object agreement morpheme for an indefinite direct object (cf. 87 is repeated as in 102).

- (102) a. aster doro arräd-äčč(*-at)
 Esther hen butchered-Sub.3FS(-Ob.3FS)
 ‘Esther butchered a hen’
 b. aster astamari säddäb-äčč(*-at)
 Esther teacher insulted-Sub.3FS(-Ob.3FS)
 ‘Esther insulted a (female) teacher’

Assuming that v is the accusative case checker for direct objects, I have assumed that the presence of a definiteness restriction for the control of object agreement by an object object is related to the accusative case realization which also has a definiteness restriction. The accusative *-n* is a realization of the accusative case feature that is valued by v and its realization is only allowed when there is a direct object is definite.

The control of object agreement by an indirect object does not manifest a definiteness restriction or the accusative *-n* suffix on the object with which it is in an agreement relation. An expected difference between the direct and indirect objects is that the direct object is accusatively case checked by v , while the indirect object that is selected by a preposition is not case checked against v ; it is case checked locally in the prepositional phrase in which it is contained. There is no relation between v and the indirect object. Thus, the agreement morpheme that is realized for the indirect object does not seem to be the ϕ -features of v . I claim that it is those of the prepositional element that appear in the verbal complex.

3.3 Summary

Let me summarize what we observed about the Amharic object agreement phenomena. A definiteness restriction is attested with a direct object that controls object agreement while it is not attested with the object control of by an indirect object. A definite nouns that appears as a direct object in Amharic has to be marked with the accusative *-n* suffix (cf. 89). The control of object agreement by a direct object is also restricted to definite ones that are marked with *-n* (cf. 87&88). Thus, I claim that there is a close involvement between these two facts. I assume that the accusative case checker for direct objects is v and interpret the required realization of *-n* as that the accusative case feature on a definite direct object has to be realized as *-n*. Only when *-n* is realized on a direct object, the ϕ -features of v can get realized as an object agreement morpheme in the verbal complex for a definite direct object.

There are two different morphological structures for the control of object agreement by indirect objects. An agreement morpheme is accompanied by a prepositional element in the verbal complex of certain types of triadic constructions, while with the *give*-type dative, adverse or sentential possession expressions there is no prepositional element realized with an agreement morpheme.

However, there is also the feature that is shared by all cases of the control of object agreement by indirect object. With or without a prepositional element in the verbal complex, the control of object agreement by indirect objects do not manifest a definiteness restriction or the accusative *-n* suffix. The issues of the object agreement control by indirect objects or non-theme arguments are extensively studied in the next chapter.

Chapter 4

Applicative Constructions in Amharic

In Chapter 3, we have observed that, in Amharic, there are triadic constructions that realize a prepositional element in their verbal complex. Triadic constructions with such a verbal morphological structure remind us of applicative constructions, especially when some theories for such constructions claim that there is a shift of a prepositional element into the verbal complex. This chapter is a study of applicative constructions in Amharic. The approach proposed for the formation of applicative constructions in this chapter claims that a prepositional phrase is involved in the formation of such constructions.

4.1 Applicative constructions

In applicative constructions, a non-theme object is accusative case marked and there is an extra morpheme appearing in the verbal morphological complex. Applicative constructions are often understood as deriving from a prepositional triadic construction. They are often given as a pair with their prepositional counterparts. Let us observe applicative/prepositional pairs from different language families. Ones from Bahasa

Indonesian and Bantu Chichiwa are given in (103&104).

(103) Bahasa Indonesia (Chung 1976)

- a. Mereka men-dapat suatu perkerdjaan **untuk** anak-ku
 they Trs-find a job **for** child-my
 ‘they found a job for my daughter’
- b. Mereka men-dapat-**kan** anak-ku suatu perkerdjaan
 they Trs-find-**Appl** child-my a job
 ‘they found my daughter a job’

(104) Chichiwa (Marantz 1984)

- a. Mbidzi zi-na-perek-a msampha **kwa** nkhandwe
 zebras Sp-Past-hand-Asp trap **to** fox
 ‘The zebras handed the trap to the fox’
- b. Mbidzi zi-na-perek-**er**-a nkhandwe msampha
 zebras Sp-Past-hand-**to**-Asp fox trap
 ‘The zebras handed the fax the trap’

A morphological parallelism can be observed among the pairs from the two languages and that of Amharic: the preposition that selects non-theme argument disappears while the argument is case marked with an accusative morpheme and there is an extra morpheme in the verbal complex.

4.1.1 Marantz’s generalization

Besides their morphological earmark in the verbal complex, applicative constructions are often observed to have their non-theme argument exhibit direct object-hood. Marantz (1984) listed the morphological and syntactic properties of applicative constructions. They are organized as Marantz’s Generalization by Baker (1988), as represented in (105).

(105) Marantz’s generalization:

An Applied Object:

- a. has a fixed position in the sentence
- b. is morphologically (<Acc>) Case marked
- c. is able to be passivized
- d. controls verbal agreement

The b- property is a morphological earmark that we have already observed. The a-, c- and d- properties are syntactic properties. Let us see applicative constructions from Chichewa, a Bantu language, in which the a-, c- and d- properties are illustrated. The data in (106-107) are adopted from Baker (1988): 247-248.

In applicative constructions from Chichewa, the applied object has a fixed position in the sentence. The position that is immediately postverbal is usually occupied by a direct object. In applicative constructions, the applied object preferentially appears in this position as in (106).

(106) The a-property: a fixed position

- a. amayi a-ku-umb-ir-a mwana mtsuko
 woman Sp-Pres-mold-Appl-Asp child waterpot
 ‘The woman is molding the waterpot for the child’
- b. amayi a-ku-umb-ir-a mtsuko mwana
 woman Sp-Pres-mold-Appl-Asp waterpot child
 ‘The woman is molding the waterpot for the child’

If an applicative construction is passivized, its applied object can be the subject of the construction as in (107b). In Chichewa, the theme cannot be passivized in the presence of the applied object as shown in (107c).

(107) The c-property: passivizability

- a. kalulu a-na-gul-ir-a mbidzi nsapato
 hare Sp-Pst-buy-Appl-Asp zebras shoes
 ‘The hare bought shoes for the zebras’

- b. mbidzi zi-na-gul-ir-idw-a nsapato (ndi kalulu)
zebras Sp-Pst-buy-for-Psv-Asp shoes (by hare)
'The zebras were bought shoes by the hare'
- c. *nsapano zi-na-gul-ir-idw-a mbidzi (ndi kalulu)
shoes Sp-Pst-buy-for-Psv-Asp zebras (by hare)
'Shoes were bought for the zebras by the hare'

In Chichewa, the applied object obligatorily controls object agreement. The theme object is blocked from doing so in the presence of the applied object as in (108).

(108) The d-property: control of object verbal agreement

- a. amayi a-ku-mu_i-umb-ir-a mtsuko mwana_i
woman Sp-Prs-OP-mold-Appl-Asp waterpot child
'The woman is molding the waterpot for the child'
- b. *amay_i a-na-u_i-umb-ir-a mwana mtsuko_i
woman Sp-Pst-OP-mold-Appl-Asp child waterpot
'The woman is molding the waterpot for the child'

In the Chichewa applicative constructions, the non-theme object receives syntactic features that are usually attributed to a direct object. When non-theme objects are observed to hold direct-object status the theme object is blocked from having these features. That is because Chichewa can accommodate only one object as a direct object in the structure. In this chapter, I consider a non-theme object that shows direct object status as an applied object and a triadic construction that has such a non-theme object as an applicative construction.

4.2 Data from Amharic: triples of triadic constructions

There are triples of triadic constructions in Amharic in which each construction is thematically equivalent to the other while they are different with respect to the distribution of a preposition and a verbal morpheme. Consider the triples in (109&110).

- (109) a. aster bet-u-n **bä**-mäṭrəgiya-w ṭärräg-äčč
 Esther house-Det-Acc **bä**-broom-Det cleaned-Sub.3FS
 ‘Esther cleaned the house with the broom’
- b. aster mäṭrəgiya-w-ən bet-u-n ṭärräg-äčč-**bb**-ät
 Esther broom-Det-Acc house-Det-Acc cleaned-Sub.3FS-**bb**-Ob.3MS
 ‘Esther cleaned the house with the broom’
- c. aster **bä**-mäṭrəgiya-w bet-u-n ṭärräg-äčč-**bb**-ät
 Esther **bä**-broom-Det house-Det-Acc cleaned-Sub.3FS-**bb**-Ob.3MS
 ‘Esther cleaned the house with the broom’
- (110) a. gänzäb-wa-n **lä**-aster wässäd-ku
 money-her-Acc **lä**-Saba took-Sub.1S
 ‘I took her(Esther’s) money for Saba’
- b. saba-ən gänzäb-wa-n wässäd-ku-**ll**-at
 Saba-Acc money-her-Acc took-Sub.1S-**ll**-Ob.3FS
 ‘I took Saba her(Esther’s) money’ (Demeke 2003: 84)
- c. **lä**-saba gänzäb-wa-n wässäd-ku-**ll**-at
 lä-Saba money-her-Acc took-Sub.1S-**ll**-Ob.3FS
 ‘I took Saba her(Esther’s) money’ (Demeke 2003: 83)

For the two sets of triadic expressions, in the *a*-examples, the non-theme argument is selected by a preposition, **bä** or **lä**. The *b*-examples have the non-theme argument marked with an accusative suffix, *-n*, along with the theme object in the construction, and interestingly there is an extra morpheme, **-bb-** or **-ll-**, that looks similar to the prepositions missing from the non-theme object, appearing in the verbal complex. In the *c*-examples, the same verbal morpheme appears in the verbal complex while there is also the preposition that selects the non-theme argument.

There are also triadic expressions that do not form a triple but a pair of equivalent expressions as show in (111&112).

- (111) a. dawit mäṣṣaf-u-n **lä**-aster mälläs-ä
 David book-Def-Acc **lä**-Esther returned-Sub.3MS
 ‘David returned the book to Esther’

- b. *dawit aster-ən məṣṣhaf-u-n mälläs-ä-**II**-at
David Esther-Acc book-Def-Acc returned-Sub.3MS-**II**-Ob.3FS
'David returned Esther the book'
- c. dawit **lä**-aster məṣṣhaf-u-n mälläs-ä-**II**-at
David **lä**-Esther book-Def-Acc returned-Sub.3MS-**II**-Ob.3FS
'David returned Esther the book'
- (112) a. dawit tarik-u-n **lä**-aster awära-∅
David story-Def-Acc **lä**-Esther told-Sub.3MS
'David told the story to Esther'
- b. *dawit aster-ən tarik-u-n awära-∅-**II**-at
David Esther-Acc story-Def-Acc returned-Sub.3MS-**II**-Ob.3FS
'David told Esther the story'
- c. dawit **lä**-aster tarik-u-n awära-∅-**II**-at
David **lä**-Esther story-Def-Acc returned-Sub.3MS-**II**-Ob.3FS
'David told Esther the story'

The non-theme argument cannot be marked with the accusative suffix, *-n*, with these expressions. Thus, the *b*-examples in which non-theme arguments are accusatively marked are bad if realized with these verbal expressions, as show in (111&112). Only the *a*-construction, a triadic with a prepositional non-theme argument, and the *c*-construction, in which there are a prepositional non-theme argument and a verbal morpheme, can be realized with these verbs.

4.3 Prepositional Suffixes

The *b*-examples are the type of constructions that we have seen in §3.2.3 of Chapter 2: P-suffix constructions. There is a prepositional element present in the verbal complex amalgamated with an object agreement morpheme. The verbal complex of the *c*-constructions show the same morphological structure. Therefore, in Amharic, there are two types of P-suffix triadic constructions. They are schematically presented as in

(113a&b) along with the non-P-suffix structure, the prepositional triadic construction in (113a).

- (113) a. *a*-examples: P-IO ... [_{V'} V ...]
 b. *b*-examples: P-IO_i ... [_{V'} V ... P-Suffix-OM_i ...]
 c. *c*-examples: IO_i-Acc ... [_{V'} V ... P-Suffix-OM_i ...]

The *b*- and *c*- structures are similar in that there is a prepositional suffix in the verbal complex but different in that the non-theme object is accusatively case marked with a suffix, *-n*, in the *b*-structure while in the *c*-structure, it is selected by a preposition.

4.3.1 The Amharic *b*-structure and Marantz's Generalization

The descriptions of the *b*-structure are reminiscent of applicative constructions. As we have seen before, the morphological earmarks, the accusative marking *-n* (105b) and the presence of an extra morpheme in the verbal complex, are attested in the Amharic *b*-structures. For the syntactic features, we can observe the *a*- and *d*-properties, the fixed position and the obligatory control of object agreement by the applied object, in the structure in (113b) but not the *c*-property, passivizability, as shown below (cf. 117). Thus, the Amharic structure in (113b) shows all but one of the features of Marantz's Generalization.

In the Amharic *b*-type triadic constructions, the non-theme argument that is adorned with an accusative case morpheme, *-n*, must precede the theme argument, as shown in (114).

(114) [✓]Word Order

aster <mätṛəgiya-w-ən> bet-u-n <*mätṛəgiya-w-ən>
 Esther (broom-Det-Acc) house-Det-Acc (broom-Det-Acc)
 ṭärräg-äčč-**bb**-ät
 cleaned-Sub.3FS-**bb**-Ob.3MS

‘Esther cleaned the house with the broom’

The P-suffix that is taken as an applicative morpheme is obligatorily suffixed with object agreement and the suffixed agreement has to be cross-referencing the applied non-theme object. Since there is only one object agreement allowed in the verbal complex of Amharic, the object agreement in the *b*-structure always has to be cross-referencing the applied object. This suffixation requirement is not fulfilled by an agreement that is cross-referencing the theme object.

Let us study the case of instrumental triadic construction. In the instrumental constructions, when there is no P-suffix and there is accusative case assignment to the theme object, the theme object can grammatically control the object agreement as in (115).

- (115) bet-u-n_i almaz **bä**-mätrəgiya-w ṭärräg-äčč-əw_i
 house-Def-Acc almaz **ba**-broom-Def cleaned-Sub.3FS-Ob.3MS
 ‘the house, Almaz cleaned with the broom’ (Getachew Haile 1970: 105)

As soon as the non-theme is accusative case assigned and a P-suffix appears in the verbal complex, the non-theme object obligatorily controls the object agreement, as shown in (116a). The object agreement cannot be cross-referencing the theme object (116b).

(116) ✓Object Agreement Control

- a. almaz **bä**-mätrəgiya-w_i bet-oč-u-n ṭärräg-äčč-**bb**-ät_i
 Almaz **bä**-broom-Def_i house-Pl-Def-Acc cleaned-Sub.3FS-**bb**-3MS_i
 ‘Almaz cleaned the houses with the broom’
- b. *almaz **bä**-mätrəgiya-w bet-oč-u-n_i ṭärräg-äčč-**bb**-aččäw_i
 Almaz **bä**-broom-Def house-Pl-Def-Acc_i cleaned-Sub.3FS-**bb**-3Pl_i
 ‘Almaz cleaned the houses with the broom’

With or without the object agreement, the passivization of the applied object is not allowed in the Amharic *b*-constructions.

(117) *Passive

*mätrəgiya-w bet-oč-u-n tä-ṭärräg-ä(-**bb**-ät)
 broom-Def house-Def-Acc Psv-cleaned-Sub.3FS(-**bb**-3MS)

Summing up the results from the check up of the *b*-constructions against the properties of applicative constructions listed in Marantz's generalization we get the list in (118).

(118) Marantz's generalization and the *b*-construction:
 An Applied Object:

- ✓ a. is morphologically (<ACC>) Case marked
- ✓ b. has a fixed position in the sentence
- * c. is able to be passivized
- ✓ d. controls verbal agreement

For some reason, passivization is not allowed in the *b*-constructions.¹ But everything else is attested in the *b*-constructions. It seems to be safe to claim that the *b*-type constructions in Amharic are an instantiation of an applicative construction.

4.3.2 The Amharic *c*-structure and Marantz's Generalization

We have just identified one of the two P-suffix constructions in Amharic as an applicative construction. A natural question at this point is whether the other P-suffix construction also is an applicative construction. Morphologically speaking, the *c*-type constructions do show a clue of being an applicative construction. They show the extra morpheme that we can consider an applicative morpheme on the verbal complex. The

¹

I will show later that some applicative constructions can be passivized in Amharic. They are applicative constructions with when a possession interpretation between the theme and applied objects.

same morpheme is present in the *b*-constructions that I just claimed to be an applicative construction. On the other hand, there is no suffixation of accusative *-n* on the non-theme argument in the *c*-construction. They are schematically presented (119).

- (119) the *b*-examples: P-IO_{*i*} ... [V' V ... P-Suffix-OM_{*i*} ...]
 the *c*-examples: IO_{*i*}-Acc ... [V' V ... P-Suffix-OM_{*i*} ...]

Thus, one of the criteria, the *a*-property of Marantz's generalization, is not met. Let us check the other criteria.

Unlike in the *b*-construction, the word order requirement is not attested in the *c*-constructions, as shown in (120). There are some speakers who prefer the [non-theme → theme] order. However, the order they do not prefer is never ungrammatical.

(120) *Word Order

aster < **bä**-mätrəgiya-w > bet-u-n < **bä**-mätrəgiya-w >
 Esther (**bä**-broom-Det) house-Det-Acc (**bä**-broom-Det)
 ɬärräg-äčč-**bb**-ät
 cleaned-Sub.3FS-**bb**-Ob.3MS
 'Esther cleaned the house with the broom'

Like in the *b*-construction, things are the same with respect to the obligatory control of object agreement by the non-theme argument even when it is not accusatively case marked with *-n*, as shown in (121).

(121) ✓Object Agreement Control

- a.almaz **ba**-mätrəgiya-w_{*i*} bet-oč-u-n ɬärräg-äčč-**bb**-ät_{*i*}
 Almaz **ba**-broom-Def_{*i*} house-Pl-Def-Acc cleaned-Sub.3FS-**bb**-3MS_{*i*}
 'Esther cleaned the houses with the broom'
- b.*almaz **ba**-mätrəgiya-w bet-oč-u-n_{*i*} ɬärräg-äčč-**bb**-äččäw_{*i*}
 Almaz **ba**-broom-Def house-Pl-Def-Acc_{*i*} cleaned-Sub.3FS-**bb**-3Pl_{*i*}
 'Esther cleaned the houses with the broom'

The passivizability for the non-theme object is not attested just as before as in the *b*-construction.

For the *c*-structures, we get the result against the Marantz's generalization as in (122).

(122) Marantz's generalization and the *c*-construction:

An Applied Object:

- * a. is morphologically (<ACC>) Case marked
- * b. has a fixed position in the sentence
- * c. is able to be passivized
- ✓ d. controls verbal agreement

Against the background of Marantz's generalization, the *c*-structure may not seem to be an applicative construction. However, in a comparison with the *b*-structures of the Amharic P-suffixes constructions, the *b*- and *c*- structures share the morpheme in the verbal complex and the obligatory control of object agreement by the non-theme argument. Capitalizing on these similarities between the *b*- and *c*- P-suffix constructions, I claim that the *c*- type of the Amharic P-suffix constructions is also an instantiation of applicative constructions.

4.4 Theories of applicatives and the Amharic data

In this section, I observe the relevance of the Amharic constructions that we have just identified as applicative constructions for the previous theories for applicative constructions. I will approach these theories by dividing them into two basic types: the applicative-via-movement approach and the applicative-via-projection approach. The former is a type of approach suggested by Marantz (1984) and Baker (1988). They both approached the formation of applicative constructions with an idea based on a displaced preposition. Applicative constructions are derived by the displacement of a preposition

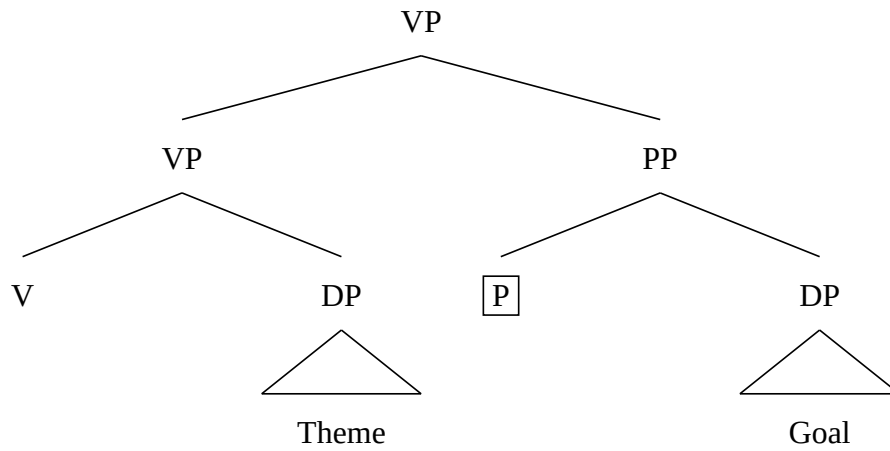
out of a prepositional phrase into the verbal domain: for Marantz (1984), a preposition merges with a verb and, for Baker (1988), a preposition incorporates into a verb. The latter group is a group of approaches that may be called an applicative-via-projection approach. For example, Marantz (1993) and Pylkkänen (2002) considered that applicatives are not derived via movement of a preposition. This approach claims that there is a predicate in the verbal domain that introduces an applicative argument. For them, an applicative morpheme is the realization of the applicative head.

4.4.1 Applicative-via-movement approaches and Amharic

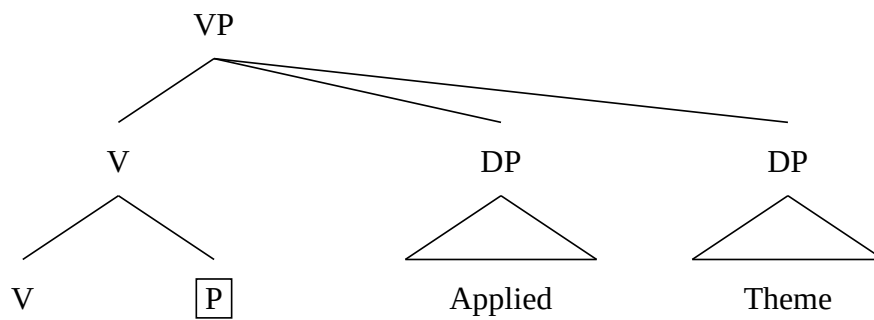
Marantz (1984) and Baker (1988) couch the analysis of applicative constructions in terms of shift of a prepositional element: prepositional merger for the former author and prepositional incorporation for the latter. Both ideas are based on the displacement of a preposition from its original place into the verbal complex. We have seen that applicative constructions are often compared to their thematically equivalent prepositional triadic constructions. Their approach formalizes such a pairing by assuming that applicative constructions are derived from prepositional triadic constructions by the shift of a preposition, as shown in (123) and (124).

(123) Marantz (1984): Merger

a. Prepositional Dative

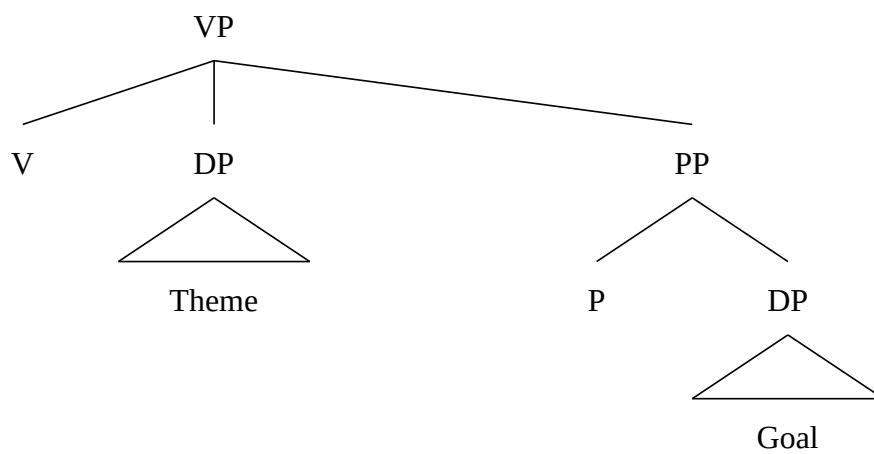


b. Applied Dative: P is merged with V

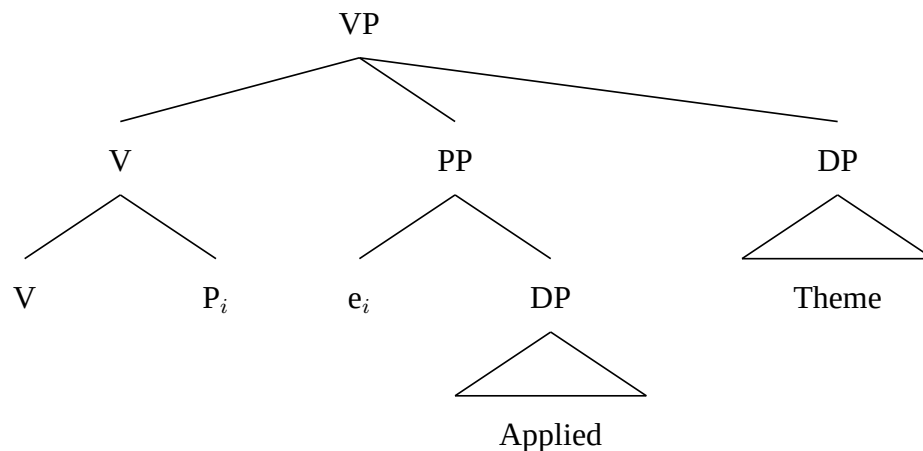


(124) Baker (1988): Incorporation

a. Prepositional Dative



b. Applied Dative: P is incorporated into V



The pair of the *a*- and *b*- constructions from Amharic is a pair of sentences that are minimally differentiated by the presence of applicativization. Applicative-via-movement approaches would give a straightforward account for the Amharic P-suffix construction especially since there is a phonological similarity between the applicative morphemes and the prepositions that select the non-theme argument in the constructions that are taken to be the base structure from which the *b*-constructions are derived.

However, the Amharic P-suffix constructions also pose a problem for an applicative-via-movement approach. It is the *c*-type that poses the problem: there are two P elements simultaneously present inside and outside the verbal complex. If the applicative morpheme is a merged or incorporated preposition, how can it be manifested at the two locations simultaneously?

The presence of this type of problematic data for an applicative-as-movement approach are shown in other languages as well. Alsina and Mchombo (1990) presents a locative applicative construction from Chichewa in which there are an applicative morpheme and a preposition that selects the applied object present simultaneously in the same construction, as shown in (cf. 125).

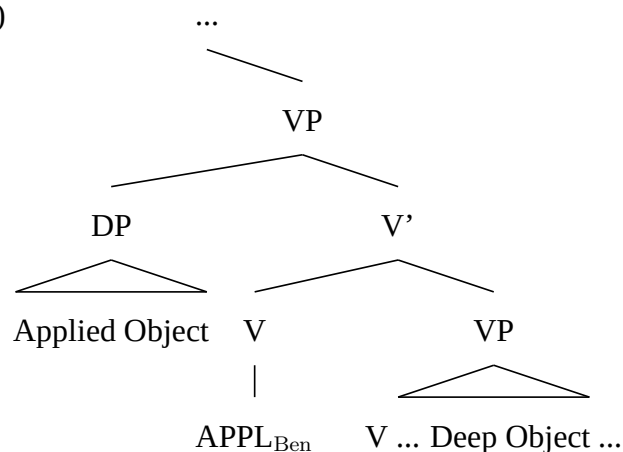
- (125) alenje a-ku-luk-**ir**-a **pa**-mchenga mikeka
 hunters Sp-Past-weave-**Appl**-Asp **on**-sand mats
 ‘the hunters are weaving mats on the beach’

In the Chichewa locative applicative construction, there are many unexpected syntactic features attested along with this morphological structure. Baker (1992) treats Chichewa constructions like (125) with a locative argument differently from other types of applicative constructions and abandons an incorporation analysis for this particular type. The Amharic *c*-type constructions can be built with various types of applied arguments (cf. Sec.4.2), thus we cannot treat the Amharic *c*-type as an exceptional case.

4.4.2 Marantz/Pylkkänen's Applicative-via-Projection and Amharic

Marantz (1993) and Pylkkänen (2002) claim that the applicative element inside the verbal complex is the realization of a head that is introducing an applied object and projecting in the verbal domain. It is Appl as a verbal head for Marantz (1993) and Appl as functional element for Pylkkänen (2002) as shown in (126a&126b).²

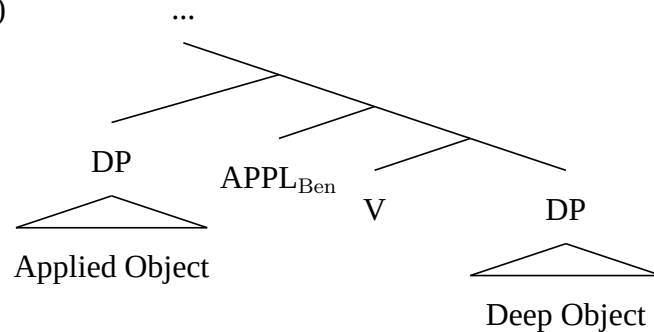
(126) a. Marantz (1993)



2

Marantz (1993) and Pylkkänen (2002) both claim that the applicative head can be merged with the verbal domain at two different locations, high and low locations, to derive the different types of applicative constructions. The structures shown here are those of high applicatives. For Marantz (1993), the high/low difference is either higher or lower than the theme object, for Pylkkänen (2002), it is either higher or lower than the verb. We will see the relevance of the different applicative constructions suggested by Pylkkänen (2002) once the different applicative constructions in Amharic are identified.

b. Pylkkänen (2002)



The simultaneous presence of the applicative and P elements in one structure is not a serious problem since the two are not syntactically identical elements unlike in the applicative-via-movement analysis.

However, the applicative-via-projection analysis would not offer any perspective on the allomorphy relationship between the two elements seen in Amharic. This would be a mere coincidence, which empirically it does not seem to be: there are two matching pairs and the pair-mates systematically vary in terms of gemination and the presence of *ä*: *bä*/-*bb*- and *lä*/-*ll*-.

4.5 Combining the best of both worlds

We have just seen that the Amharic P-suffix constructions are not in total accord either with the applicative-via-movement or the applicative-via-projection approaches while they both also make correct predictions. We can summarize our observations of data against the background of the two theories, as in (127).

(127) a. Correct Predictions

i. **Appl-via-movement**

- offers an account for the allomorphy relationship between the applicative morpheme and the preposition

ii. **Appl-via-projection**

- allows the simultaneous presence of the applicative element and the preposition

b. Wrong Predictions

i. **Appl-via-movement**

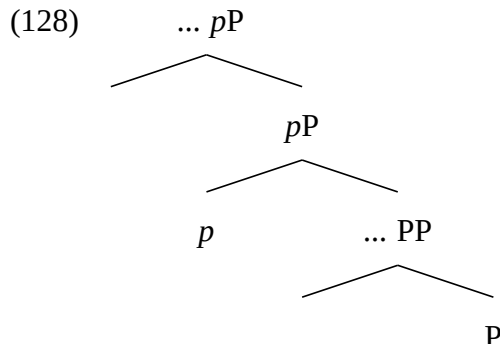
- wrongly predicts that simultaneous presence of the two elements is impossible

ii. **Appl-via-projection**

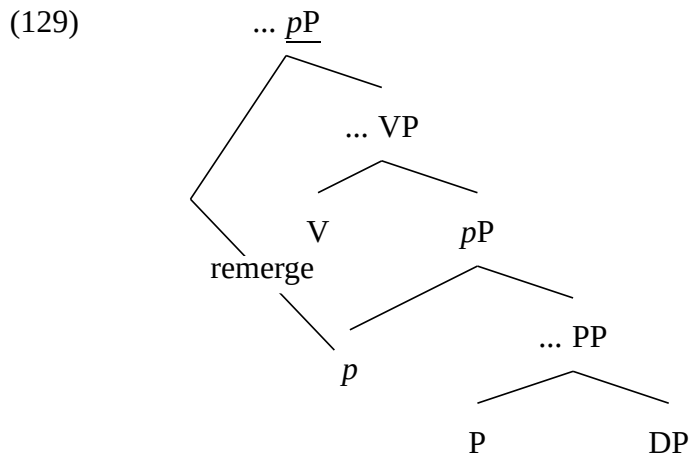
- does not offer any perspective on the allomorphy relationship between the two elements

In this chapter, I will try to avoid the wrong predictions of the applicative-via-movement and the applicative-via-projection approaches while keeping the correct predictions made by them at the same time. One way of doing that is to combine the applicative-via-movement and applicative-via-projection approaches, by arguing that: (i) the structure of a prepositional phrase is complex, including a functional preposition; (ii) the functional preposition remerges with the functional layer of the verbal domain and projects once again.

I adopt Huybregts and van Riemsdijk (2001)'s complex PP structure in which there are two prepositional elements. They are realizations of two heads which I call, following Svenonius (to appear), *p* and *P*, as shown in the structure in (128). I also claim that in the Amharic P-doubling constructions, the functional preposition remerges with the verbal domain while the lexical one stays put inside PP.



In P doubling constructions, the functional preposition remerges with the functional layer of the verbal domain and projects there once again and hosts the applied argument that in turn merges with the remerged functional preposition (cf. the underlined part in 129).³



My theoretical approach is based on the idea that the two prepositional elements found in the structure of the doubling applicative construction are separate prepositional elements. Another theoretical possibility is that the two elements are copies of one element. The latter position seems to be apt for the Amharic cases especially since the two elements share phonological features, **-ll-/lä** and **-bb-/bä**. However, there are some data that indicate the copy option is not the right one. In Amharic there are cases in which a pair of prepositions are formed by the combination of **-bb-** and **lä**, as shown in (130) (cf. aslo Hetzron 1970).

- (130) yəh səra **lä**-aster bəzu gize wässäd-ä-**bb**-at
 this work **lä**-aster much time took-Sub.3MS-**bb**-Ob.3FS
 ‘this work took up much time for Esther’

3

The idea that two prepositional elements are involved in the structure of applicative constructions is not new. Den Dikken (1995) proposes that, in the underlying structure of applicative constructions, there is a set of two prepositional elements: a particle and a lexical preposition.

Thus, we are led to claim that the pair of prepositional elements in the Amharic doubling applicatives is formed by two separate prepositional elements. The fact that the two morphemes that can appear as an applicative morpheme in Amharic are both allomorphic to a preposition strongly suggests that these two morphemes should be analyzed as a pair of functional and lexical prepositions. It turns out be that pairs of functional and lexical prepositions found in some German prepositional phrases often show an allomorphy relation (cf. §4.5.1). Van Riemsdijk (1990) notes that an allomorphy relation is observed between the functional and lexical elements of other categories. For example, Van Riemsdijk (1990:230) notes that the auxiliary and lexical occurrences of English *have* can be such an allomorphy pair in the verbal domain and that determiners are often morphologically nominal cross-linguistically in that there is ‘a fair amount of similarity between the forms of articles on the one hand and (pro-)nominal form classes such as pronouns, demonstratives, clitics and the like on the other.’

If applicative morphemes are treated as a verbal element as by the approaches of Marantz (1993) and Pylkkänen (2002), they would not have any direct grammatical relation with a preposition. The allomorphy relation attested between the two applicative morphemes and prepositions in Amharic cannot be directly accounted for by their approaches.

In the sections that follow, I will discuss the examples from German that led Huybregts and van Riemsdijk (2001) to suggest a PP has a complex structure. I will also show a set of data from prepositional phrases of other Ethio-Semitic languages that, from a certain comparative and diachronic perspective, would suggest that a complex prepositional phrase approach is plausible also for Amharic.

4.5.1 German

Huybregts and van Riemsdijk (2001) claims that the structure of a prepositional phrase

can contain two prepositional elements. Their claim is based on such German data as shown in (131).

(131) a. German

die Schnecke kroch **auf** das Dach hin-**auf/über/unter**
 the snail crept **onto** the roof **Prt-onto/over/under**
 ‘the snail crept (up/over/down) onto the roof’

b. Swiss German

... **auf** den Berg **auf**
up the mountain **onto**
 ‘up onto the mountain’

Huybregts and van Riemsdijk (2001) describe the post-nominal prepositional element in (131) as a functional preposition that encodes ‘the *orientation* of the path’ (cf. Huybregts and van Riemsdijk 2001, 5). The path itself is defined by the lexical preposition. Thus the functional preposition supplements the positional meaning encoded by the lexical preposition.

4.5.2 Ge‘ez prepositions, *ba* and *la*

I am claiming that the two prepositions from such a complex prepositional structure can be realized in Amharic, the functional one in the verbal complex and the lexical one outside, and the functional preposition originates in the complex PP outside. Although a pair of two prepositions never occurs simultaneously inside a prepositional phrase in Amharic, it is not an impossible grammatical feature for the Ethio-Semitic family to which Amharic belongs. The family’s oldest member to be recorded is Ge‘ez, or Classical Ethiopic. In this language, two prepositional elements can occur inside a prepositional phrase, just as in German. Ge‘ez shares the prepositions, *ba* and *la*, with Amharic and the two prepositions can accompany another preposition in the same

prepositional phrase. The examples in (132& 133) are the cases in which *la* and *ba* are co-occurring with another preposition, *xaba*.

- (132) waybel-omu 'iyasus 'albo **ba-xaba** 'iyəkabr nabiy za'ənbala ba-hagar-u
 but-sad-them Jesus not **ba-with** honor prophet only in-country-his
 wa-ba-bet-u
 and-in-house-his
 'But Jesus said onto them prophets are not without honor except in their own
 country and in their own house' (Matthew 13:57)
- (133) malā'akt wa-yə-wady-u 'ar'əsti-homu la-məsraq **la-xaba** sabə'a
 angels and-3-gathers-Pl threw-3MPl to-east to-on people.Gen
 parte wa-meda
 Parthia and-Mede
 'the angels will gather together, and will throw themselves to the east onto the
 people of Pathia and Meda'
 (The Ethopic Book of Enock 56:5, Rylands Ethiopic Manuscript 23, cf. Knibb
 1978)

xaba itself can occur as a preposition on its own to encode meanings such as 'with', 'by' or 'towards', as shown in (134).

- (134) a. wa-weyutu qāl **xaba** əgziabəher weyetu
 and-the word **with** God the
 'And the Word was with God' (John 1:1)
- b. kama 'əṣə 'ənta təkələt **xaba** muhāzamāy
 as tree as planted **by** stream water
 'like a tree planted by the rivers of water' (Psalm 1:3)
- c. wa-naṣara **xaba** samāy
 and-looked **towards** heaven
 'and looking up to heaven' (Mathew 14:19)

I argue that the occurrences of *la* and *ba* in (132& 133) are the occurrences of a functional element since we know that *xaba* itself can encode a sense of directionality. I

take it that the prepositional phrases in the data in (132& 133) are structurally equivalent to the German prepositional phrases in (131). Thus, the two prepositional elements in the complex structure in (128) can be realized in Ethio-Semitic. Amharic is often considered to be a descendant language of Ge'ez and **ba** and **la** are shared by the two languages. I claim that, in Amharic, the occurrences of **ba** and **la** inside the verbal complex can be the functional prepositions. Dillmann (1899) holds that *xaba* is derived by adding *xa* to **ba**. The former is a deictic pronominal element, as English *there*, and the latter is a preposition, **ba**. Thus, the set of preposition elements found in the prepositional phrase in constructions such as the Ge'ez example in (132) is a set of the functional and lexical occurrences of the same preposition: **ba**. This view, thus, makes the combination of the functional and lexical prepositions found in the Amharic P-doubling applicative constructions parallel to that of the Ge'ez constructions such as (132) cases. However, in Amharic, the functional preposition is not allowed to be realized inside a prepositional phase; it has to be included in the verbal structure. There is another morphological requirement for the realization of the P-suffixes in Amharic: a P-suffix has to be suffixed with object agreement. We have observed that the applied argument in the Amharic suffix constructions obligatorily controls object agreement. The suffixation of object agreement turns out to be required. I will immediately come back to these facts in the next section.

4.5.3 Ge'ez and Amharic preposition and an object agreement morpheme

We are now assuming a historical plot in which some occurrences of **la** and **ba** in Ge'ez and those of **lä** and **bä** that occur in the Amharic verbal complex are related elements. They are similar in that they originated in a prepositional phrase where they can be

doubled up with another prepositional element, but morphologically different in that, in Ge‘ez, the functional preposition can stand inside a prepositional phrase along with another prepositional element while in Amharic, they must be affixed into the verbal complex. Further observations of two prepositional elements from the two languages reveal an interesting similarity.

We have observed in Chapter 3 the prepositional suffix in the verbal complex in Amharic has to be suffixed with an object agreement morpheme, i.e., [P*(-Ob)], as shown in (135).

- (135) a. ṭärräg-äčč-**bb**-(ät) b. wässäd-ku-**ll**-(at)
 cleaned-Sub.3FS-**bb**-Ob.3MS took-Sub.1S-**ll**-Ob.3FS
 ‘he cleaned with it’ (from ‘I took for her’ (from 110b&c)
 109b&c)

This morphological requirement is a rather interesting phenomenon in Amharic, because the composition of a prepositional element and an agreement morpheme does not happen outside of the verbal complex or elsewhere in Amharic (cf. 136).

- (136) a. *dawit bet-u-n **bä**-ät/w ṭärräg-ä
 David house-Def-Acc **bä**-Ob.3MS cleaned-Sub.3MS
 ‘David cleaned the house with it’
 b. *dawit mäṣṣaf-wa-n **lä**-at mälläs-ä
 David book-her-Acc **lä**-Ob.3FS returned-Sub.3MS
 ‘David returned the book for her’

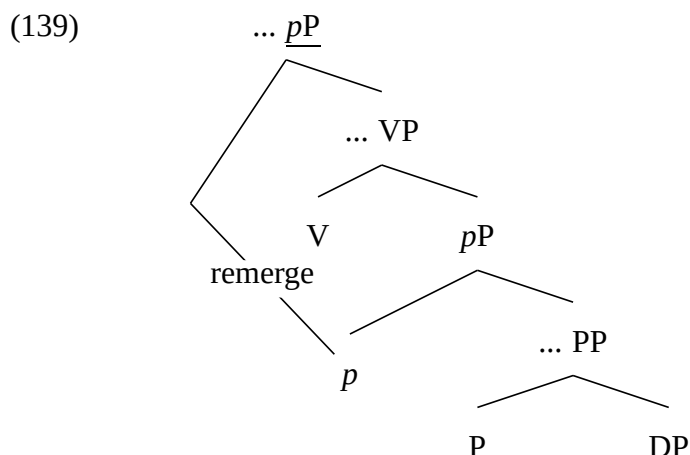
In Ge‘ez, most prepositions can be suffixed with an agreement suffix that inflects for the argument that is selected by the preposition; the object of a verb and the possessor in the possessed noun phrase (137-138). **la** and **ba** can be suffixed by an agreement morpheme.

- (137) wa-xedeg **la**-na abas ā-na
 and-forgive **for**-1P sin-our
 ‘and forgive us our sin ...’ (Mathew: 6:9)

- (138) wa-k ān-u **b**-ya šlastu mæss āle
 and-come **towards**-1S three parables
 ‘and thee parables were imparted to me’ (Enock: 37:5)

From a broad Ethio-Semitic perspective, it seems possible for us to assume that: (i) prepositions, **bā** and **lā**, can occur as functional prepositions; (ii) these prepositions can be amalgamated with an agreement morpheme, i.e., [P+Ob.Agr]. In Amharic, the composition of a preposition and a agreement suffix is allowed to occur only inside the verbal complex. Given these observations based on the comparative Ethio-Semitic perspective, we can analyze some data from the Amharic P-suffix constructions against the background of the syntactic structure we have proposed in the previous section (cf. 128).

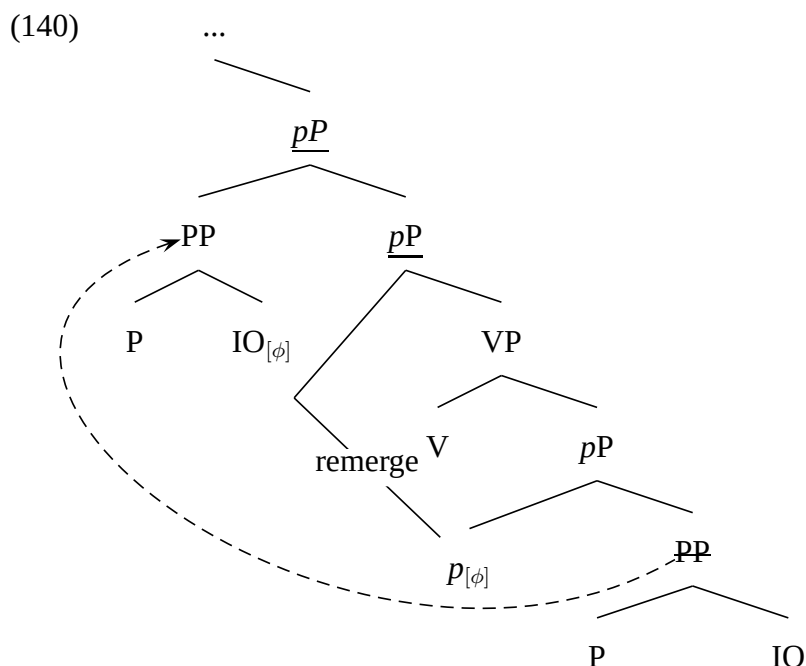
Based on the complex structure of prepositional phrases suggested by Huybregts and van Riemsdijk (2001) (cf. 128) and the fact that Ethio-Semitic **ba** and **la** can complement a lexical preposition as a functional preposition Ge‘ez, I claim that the process of applicativization in Amharic contains the remerge of the functional preposition, as in (139).



The Amharic P-suffix constructions being applicative constructions, syntactic promotion of the non-theme object is expected. The obligatory control of object agreement by the applied object is attested by both types of the Amharic P-suffix construction, the word order restriction is observed with only the b-type of the P-suffix constructions. In other words, object agreement control is one property that appears in all types of Amharic P-suffix constructions. Thus it should be attributed to the process of applicativization itself while the word order fact can depend on a specific syntactic condition.

In Amharic, it is not just that the applied objects induce object agreement, the control of object agreement is obligatory in a structure where there is applicativization (cf. 135). As we have seen in Chapter 3, in the Amharic verbal complex, only one agreement morpheme is allowed. If applicative constructions always have to realize an agreement morpheme for the applied object, there is no chance for the theme object to have an agreement morpheme.

The applied object that is selected by a preposition also controls the object agreement that is hosted by a P-suffix. This means the non-theme argument can be applied while it is still selected by a preposition. I have claim that the process of applicativization involves the movement of the PP that contains the applied object to the specifier position of the remerge functional projection, as in (140).



With this structure, I claim that the object agreement morpheme for the applied objects is a phonological realization of the set of ϕ -features that comes with the functional preposition, p .

The object agreement that is amalgamated with the functional preposition must be in an agreement relation with the applied object. This is a consequence of the fact that the only DP argument that can check its ϕ -features against p is the applied object that forms a local syntactic relation inside pP in the structure (140). I assume that in the structure of applicativization in Amharic, the set of ϕ -features of the functional prepositional is always realized for the applied object. I take this phonological realization as a direct reflex of the fact that PP that contains the applied object is at the spec position of the remerged functional preposition.

4.6 A general approach to applicatives: morphological variations

If the P-doubling applicative constructions have an underlying structure that includes a PP with two prepositional elements and the applicative semantics is due to the reprojection of the functional preposition and the movement of PP into the spec position, how is the applicative construction without P-doubling derived? The construction is an applicative construction but does not show two prepositional elements. I assume that there are two prepositional elements, *p* and *P*, present even in the structure of the non-doubling constructions. However, in the non-doubling structure, the lexical prepositional, *P*, is not phonologically realized while its functional counterpart, *p*, is realized. Its structure is shown in (141).

(141) [... [PP *P*_∅ ...] [_{pP} *p* ...]]

Thus, we can offer a perspective on applicative constructions in general: applicative constructions are derived by the remerge of a functional preposition with the verbal domain. Just as in the P-doubling constructions, the applicative element of the canonical non-doubling applicative constructions is a remerged functional preposition that originates from PP whose lexical preposition is realized phonologically null (cf. 141). The difference between the *b*- and *c*-types, the canonical and the P-doubling types, of Amharic applicative constructions is the phonological overt/emptiness of the lexical preposition (cf. 142).

(142) [... [PP *P*_{overt/∅} ...] [_{pP} *p* ...]]

The variation described in (142) is induced by the overt/covert alternation of the phonological realization of the lexical preposition. One expected extension of this line of thought is that it may also be possible for the functional preposition to be either

phonologically overt or covert. Amharic seems to present evidence that this is the case.

There are triadic constructions in Amharic that do not show any derivational morpheme, as an applicative morpheme, *-ll-* or *-bb-*, while their non-theme object shows applied object status. The *give*-type dative constructions that we have seen in the previous chapter, §3.2.1, is such a construction. One example is shown here as in (143).

- (143) aster ***lä***-dawit doro-wa-n säṭa-äčč-əw
 Esther ***lä***-David- hen-Def-Acc gave-Sub.3FS-Ob.3MS
 ‘Esther gave David the hen’

The example in (143) appears to be a straightforward dative expression with an indirect object that is introduced by a preposition and there is no extra morphology in the verbal complex. However, its goal object shows direct object status, namely, the control of object agreement and passivizability.

Recall from the discussion in §3.2.1 that in this type of triadic constructions, the control of object agreement by the theme object is blocked by the presence of a goal object, as shown in (144b).

- (144) a. aster doro-wa_i-n säṭa-äčč-at_i
 Esther hen-Def-Acc gave-Sub.3FS-Ob.3FS
 ‘Esther gave the hen (away)’
 b. aster ***lä***-dawit_k doro-wa_i-n säṭa-äčč-əw_k/*at_i
 Esther ***lä***-David- hen-Def-Acc gave-Sub.3FS-Ob.3MS/*Ob.3FS
 ‘Esther gave David the hen’

The goal object of triadic constructions such as the one in (143) can be passivized, as shown in (145).

- (145) dawit doro-wa-n tä-säṭ-ä
 David hen-Def-Acc Psv-gave-3MS
 ‘David was given the hen’

This means that this type of triadic structures exhibits two of the four criteria of Marantz’s generalization. Let us call this type the *d-* type.

(146) Marantz's generalization and the *d*-construction:

An Applied Object:

- * a. is morphologically (<ACC>) Case marked
- * b. has a fixed position in the sentence
- ✓ c. is able to be passivized
- ✓ d. controls verbal agreement

Thus, let us take these syntactic features as an indication of the applied status of the goal object albeit that there is no audible morphological marking of applicativization in the verbal complex or accusative case marking. Then, sentences in Amharic like the one in (143) are instantiations of a structure that is a phonologically reversed version of the one in (141): a structure in which the functional preposition is phonologically null and the lexical one is realized, as in (147).

(147) The *d*-structure: [... [PP P ...] [_PP *p*_∅ ...]]

My approach predicts that one more morphological variation of an applicative construction is possible with respect to the covert/overt options of the functional and lexical prepositions. That is a structure in which both the functional and lexical prepositions are covert. Let us call this the *e*-type, is depicted as in (148).

(148) The *e*-structure: [... [PP *P*_∅ ...] [_PP *p*_∅ ...]]

Triadic constructions that would instantiate the structure in (148) have to have an applied object that is not selected by a preposition nor accompanied by an applicative morpheme in the verbal complex. There is such a construction in Amharic. It is a construction that has been described by Hailu Fulass (1974) as involving an *adversely affected* argument. Let us also call the construction an *adverse* triadic construction. Examples for the adverse constructions are given in (149).

- (149) a. lebä-očč-u mulu-n borsa-w-ən qämm-u-at
 thief-Pl-Det Mulu-Acc wallet-Def-Acc robbed-Sub.3MPI-Ob.3FS
 ‘the thieves robbed Mulu of the wallet’ (Hailu Fulass 1974: 117, (9a))
- b. lebä-očč-u mulu-n borsa-w-ən särräq-u-at
 thief-Pl-Det Mulu-Acc wallet-Def-Acc stole-Sub.3MPI-Ob.3FS
 ‘the thieves stole the wallet from Mulu’ (Hailu Fulass 1974: 117, (10a))
- c. lebä-očč-u mulu-n borsa-w-ən nättäq-u-at
 thief-Pl-Det Mulu-Acc wallet-Def-Acc snatched-Sub.3MPI-Ob.3FS
 ‘the thieves snatched the wallet from Mulu’ (Hailu Fulass 1974: 117, (11a))

The adversely affected argument is affixed with the accusative case morpheme *-n* in the adverse constructions in (149). Along with the accusative marking, we can in fact locate all of the indications of applied object-hood listed by Marantz (1984) (cf. 105). The adverse argument obligatorily precedes the theme object in the structure and controls the object agreement, as in (150).

- (150) lebä-očč-u (mulu-*n_i*) borsa-w-ən_{*j*} (*mulu-*n_i*)
 thief-Pl-Det (Mulu-Acc) wallet-Def-Acc (Mulu-Acc)
 qämm-u-at_{*i*}/*ät_{*j*}
 robbed-Sub.3MPI-Ob.3FS/Ob.3MS
 ‘the thieves robbed Mulu of the wallet’

The adverse argument is also passivizable (cf. 151).

- (151) mulu borsa-w-ən tä-qämma-čč
 Mulu wallet-Def-Acc Psv-robbed-Sub.3FS
 ‘Mulu was robbed the wallet’

- (152) Marantz’s generalization and the *e*-construction:
 An Applied Object:

- ✓ a. is morphologically (<ACC>) Case marked
- ✓ b. has a fixed position in the sentence
- ✓ c. is able to be passivized
- ✓ d. controls verbal agreement

The construction is sufficient to be called an applicative construction. It manifests neither a preposition nor an applicative morpheme. Thus, such a structure indeed is an instantiation of the last structure of the variations of applicative constructions that my approach predicts.

4.7 Interim summary

Based on the presence of applicative constructions that realize two prepositional elements in Amharic, I developed an analysis of applicative constructions based on the idea that the syntax for prepositional phrases can include functional and lexical prepositions as argued by Huybregts and van Riemsdijk (2001). The applicative morpheme is the functional preposition that remerges with the verbal domain and projects an applicative element. The chapter analyzed applicative constructions of the non-doubling, canonical, type to have two prepositional elements and the lexical preposition can be overt or null. Thus, the present analysis claims that applicative constructions in general always involve a complex prepositional phrase and the remerge of the functional preposition.

Just as the functional preposition can be overt or null, it is expected that the lexical one can be as well. This approach predicts (2×2) four possible morphological variations of applicative constructions with respect to the distributions of the prepositional and applicative elements, or the lexical and functional prepositions. The variations are shown in (192)

- (153) The b-structure: [... [PP P_∅ ...] [_{pP} p ...]]
 The c-structure: [... [PP P ...] [_{pP} p ...]]
 The d-structure: [... [PP P ...] [_{pP} p_∅ ...]]
 The e-structure: [... [PP P_∅ ...] [_{pP} p_∅ ...]]

Amharic happens to be a language in which there are applicative constructions with morphologically various realizations with respect to the applicative morpheme and the preposition. The complex PP approach of this chapter could offer an uniform account for the applicative constructions.

4.8 The syntax of applicative constructions in Amharic

The present approach provides an analysis for the morphological variations of the Amharic applicative constructions. However, it is not only in morphology that the four types of constructions diverge. Each construction carries different syntactic properties as well. For example, the P-doubling applicative constructions, c- constructions, which phonologically realize both the lexical and the functional preposition, show only one property of Marantz's generalization while the adverse triadic construction, which does not realize any prepositional element, shows all of the four properties of Marantz's generalization. Let us summarize the different distributions of the syntactic properties into a chart. First, Marantz's generalizations are four parted, (105) is repeated here in (154).

(154) Marantz's generalization:

An Applied Object:

- a. has a fixed position in the sentence
- b. is morphologically (<Acc>) Case marked
- c. is able to be passivized
- d. controls verbal agreement

(155) The Amharic applicative constructions:

Criterion	The b-Type $p+P\emptyset$	The c-Type $p+P$	The d-Type $p\emptyset+P$	The e-Type $p\emptyset+P\emptyset$
a	✓	*	*	✓
b	✓	*	*	✓
c	*	*	✓	✓
d	✓	✓	✓	✓

There are patterns that can read be off from the chart in (155). First of all, all structures show the criterion d, the control of object agreement. We have discussed this phenomenon already. It is a direct reflex of the fact that applicativization involves the remerge/reprojection of the functional preposition, p , and PP-movement into the spec of the reprojected p and the agreement morpheme realized for the applied object is a morphological realization of the ϕ -features of p . Besides this point, we can observe two points as in (156).

- (156) (i) The properties a and b , the accusative case marking and the word order restriction, are observed always together and only in the structures where the P is null.
- (ii) The passivizability of a non-theme object is only observed in the structures in which p is covert.

Before starting to look into these different properties, we have to know the clausal syntax of the Amharic applicative constructions. Up to this point, we have only concluded that there is remerge of the functional preposition. We have to determine, for example, the syntactic positions of the applied and theme objects in the applicative structure.

4.9 Binding between the two objects

One way to shed light on the placement of the two objects is investigating the binding possibilities between the applied and theme objects. A proper binding relation between an antecedent and anaphor always has a structure in which the antecedent asymmetrically c-commands the anaphor. Barss and Lasnik (1986) and Larson (1988) show that one of the two objects in English double object constructions always have structural dominance. Larson (1988) shows this dominance is delivered by the fact that one of the two objects in English double object constructions always asymmetrically c-commands the other. They use various binding constructions. I will adapt one of their binding tests involving reflexive anaphors to the Amharic applicative constructions.

4.9.1 One's self, head-possessive

In Amharic, *one's self* expressions are formed by the combination of a word, *ras*/'head', and a possessive suffix, as *ras-u*/head-his, *ras-wa*/head-her, etc. In a proper binding environment, the *ras*-Poss expressions can be interpreted as an anaphor, *one's self*. When the *ras*-expressions are not properly bound, they have to be interpreted with their literal meaning, *one's head*, as illustrated as in (157).

- (157) a. yohanes ras-u-n mäta- $\emptyset$ -w
 john head-his-Acc hit-Sub.3MS-Ob.3MS
 'John hit his head/himself'
- b. ras-u yohanes-ən mäta- $\emptyset$ -w
 head-his John-Acc hit-Sub.3MS-Ob.3MS
 'his head/*himself hit John'

4.9.2 Binding between the theme and non-theme arguments

Unless the applied object is accusatively marked, the word order is not strictly fixed, the theme and applied objects can be ordered alternatively in the Amharic applicative constructions. This means that c-command relations between the two objects can be formed variously. We can test four possible binding environments per structure. Let us see the case of instrumental and *give*-type dative applicative constructions as in (158&159). We should keep in mind that a *head*-poss expression can be interpreted as an anaphor only when it is placed in a proper binding environment.

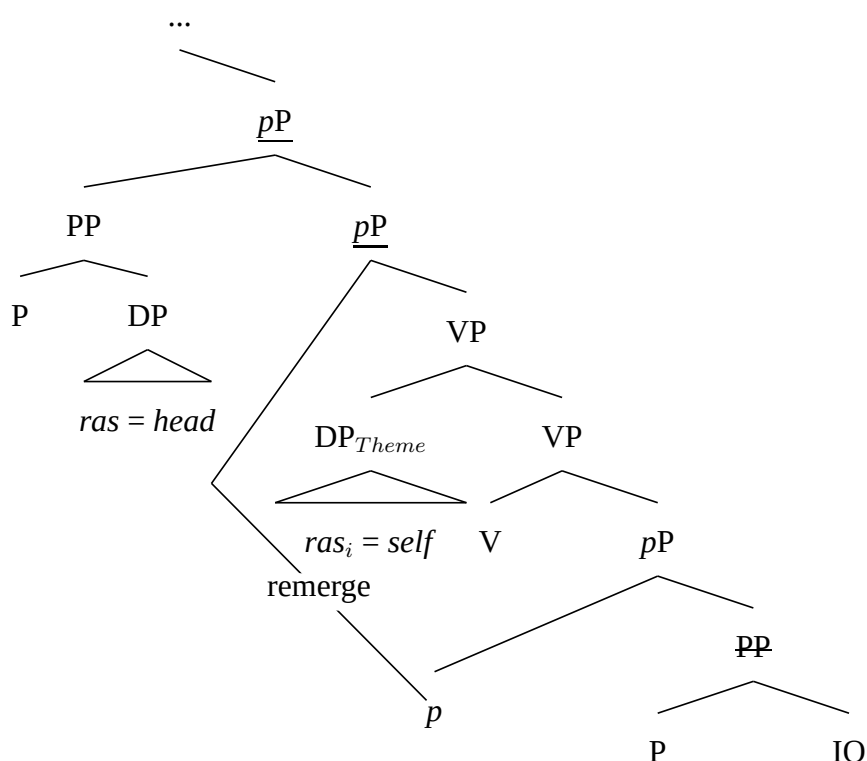
- (158) a. aster **bä**-vacum-u_i ras-u-n_i tärrägä-čč-**bb**-ät
 Esther with-vacuum-the head-its-Acc cleaned-Sub.3FS-**bb**-Ob.3MS
 ‘Esther cleaned **itself** with the vacuum’
- b. aster ras-u-n bä-vacum-u tärrägä-čč-**bb**-ät
 Esther head-its-Acc with-vacuum-the cleaned-Sub.3fs-**bb**-Ob.3MS
 ‘Esther cleaned **his head** with the vacuum’
- c. aster **bä**-ras-u vacuum-u-n tärrägä-čč-**bb**-ät
 Esther with-head-its vacuum-the-Acc cleaned-Sub.3fs-**bb**-Ob.3MS
 ‘Esther cleaned with the vacuum **his head**’
- d. aster vacuum-u-n_i bä-ras-u_i tärrägä-čč-**bb**-ät
 Esther vacuum-the-Acc with-head-it cleaned-Sub.3fs-**bb**-Ob.3MS
 ‘Esther cleaned the vacuum with **itself/his head**’
- (159) a. dawit **lä**-aster_i räs-wa-n_i sätt-ä-**ll**-at
 David to-Esther head-her-acc gave-Sub.3MS-**ll**-Ob.3FS
 ‘David gave Esther **herself**’
- b. dawit räs-wa-n **lä**-aster sätt-ä-**ll**-at
 David head-her-acc to-Esther gave-Sub.3MS-**ll**-Ob.3FS
 ‘David gave Esther **her head**’
- c. dawit **lä**-räs-wa aster-ən sätt-ä-**ll**-at
 David to-head-her Esther-acc gave-Sub.3MS-**ll**-Ob.3FS
 ‘David gave **her head** Esther’
- d. dawit aster-ən_i **lä**-räs-wa_i sätt-ä-**ll**-at
 David Esther-acc to-head-her gave-Sub.3MS-**ll**-Ob.3FS

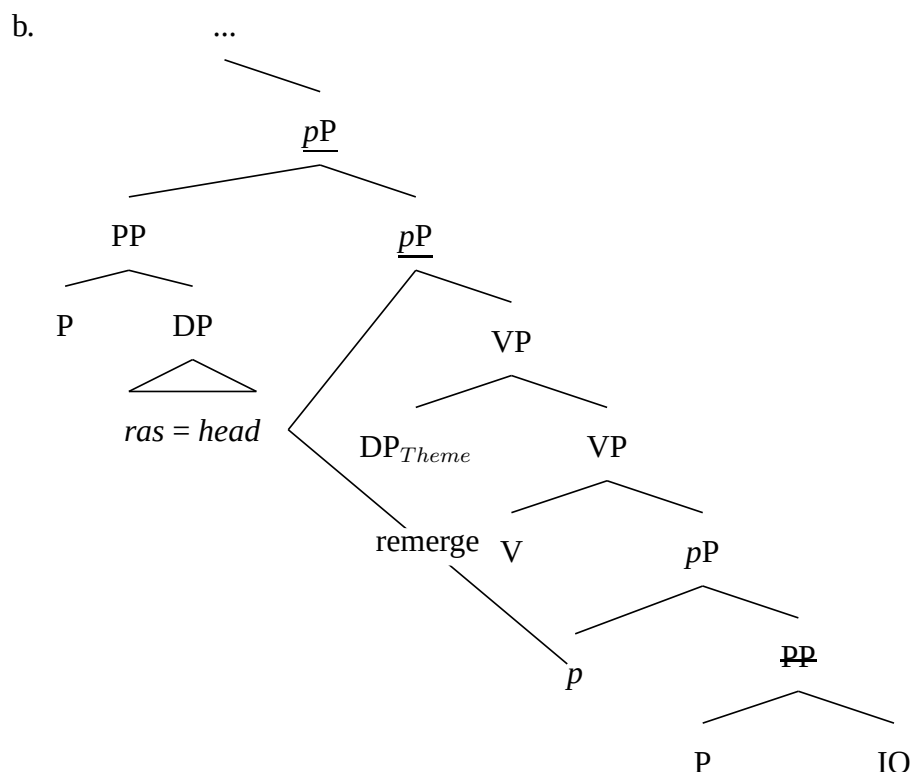
‘David gave Esther *herself/her head*’

Based on the fact that all applicative constructions in Amharic involve the obligatory control of object agreement by the non-theme, I have claimed that applicative constructions are derived by a set of two derivations: the remerge of a functional preposition with verbal root and PP movement into the spec of the remerged preposition (cf. 140). Thus, the applied object is supposed to be at a higher position than the theme object.

Thus, in the a- and c- examples of (158&159) that place the applicative object on the left side of the theme object, no other movement operation seems to be involved. The successful and unsuccessful binding structures in the examples are predicted, as depicted in the tree structures in (cf. 160).

(160) a.





The applied object precedes the theme object; the applied object structurally asymmetrically *c*-commands the theme object. In the *a*-examples, the theme object is a *ras*-expression. The theme object position is successfully *c*-commanded by the applied object (cf. 160a). The *c*-examples place the *ras*-expression at the applied object position; it cannot possibly be interpreted anaphoric to the theme object that is lower in the structure (cf. 160b). The ϕ -features of the subject do not match those of the *ras*-expression. The subject is not an appropriate licenser; without a proper antecedent in the structure, the *ras*-expression in the *c*-examples is interpreted as *one's head*.

4.9.3 On the position to the left side of the applied object

Let us now look at the cases in which the theme object is placed before the applied object (cf. the b- and d- examples of 158&159). When the theme object is a *ras*-expression, it cannot be licensed as anaphoric to the applied object. An anaphoric

theme object is properly licensed by the applied object on the right side of the applied object (cf. the *a*-examples of 158&159), so apparently the theme object moves to a location where the applied object can no longer be its proper antecedent, as illustrated in (161).

(161) [... DP_{Theme} ... DP_{Appl} ... ~~DP_{Theme}~~ ...]

The question is: what is this position? A possible answer is that it moves over the applied object position to a position that changes the binding relations, to an A-position.

A set of binding data shows that linearity can be ignored for anaphor binding in Amharic. There are cases of proper bindings of an anaphoric object that are placed on the left side of its antecedent, as shown (162).

(162) a. Cleft with a reflexive anaphor

ras-u-n nəw dawit yä-aqaṭäl-ä-w
head-his-Acc Cop David Rel-burned-Sub.3MS-Ob.3MS
'It was himself that David burned'

b. Cleft with an anaphor contained in a possessive phrase

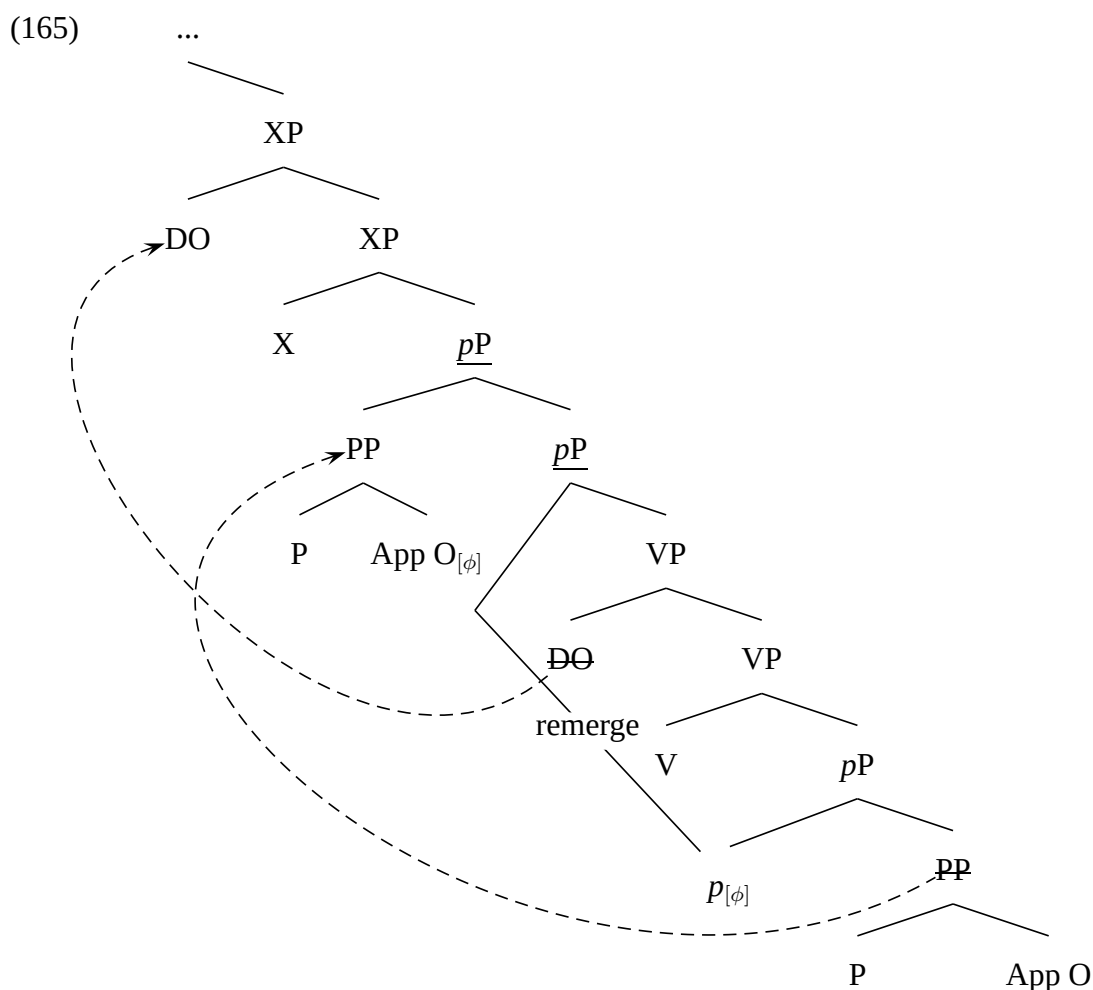
ras-u-n foto nəw dawit yä-aqaṭäl-ä-w
head-his-Acc picture Cop David Rel-burned-Sub.3MS-Ob.3MS
'It was the picture of himself that David burned'

c. Wh-movement of an anaphor contained in a possessive phrase

yätənəya-wa-n yä-ras-wa-n foto aster aqaṭäl-äčč
which-F-Acc Gn-self-her-Acc picture Esther burned-Sub.3FS
'which picture of herself did Esther burn?'

These are instances of a noun phrase extraction that are usually considered A-bar movement. They are semantically reconstructable in Logical Form. In terms of binding interpretation, such movement has no influence. An A-bar-moved anaphor can be traced back to the position at which a proper binding relation between it and its

an A-movement. If it is the case, this would mean that there is a A-position for a theme object that is higher than the applied object position in the applicative constructions in Amharic, as in (165).



In the *d*-examples of (158&159), a *ras*-expression is placed at the applied object location on the right side of an A-moved theme object (cf. 166). Thus, the *d*-examples have the same order between the two objects as the *b*-examples. Such an order is derived by the fact that theme object is A-moved to the left side of the applied object (cf. 166). If a *ras*-expressions is placed at this location, it would not be able to be licensed as anaphoric to the applied object (cf. the *b*-example structurally presented in 166). On the other hand, if a possible antecedent is at this location, it should be

count by the structure in (140). The two generalizations that we made in (156) remain to be explained.

4.10.1 On Generalization (156i): the accusative *-n* on the applied object

The first generalization, (156i), is about the correlations among the appearance of the accusative case morpheme, *-n*, on the applied object, the word order requirement, [... Appl Ob. → Deep Ob. ...], and the lack of a phonologically realized lexical preposition (cf. 167).

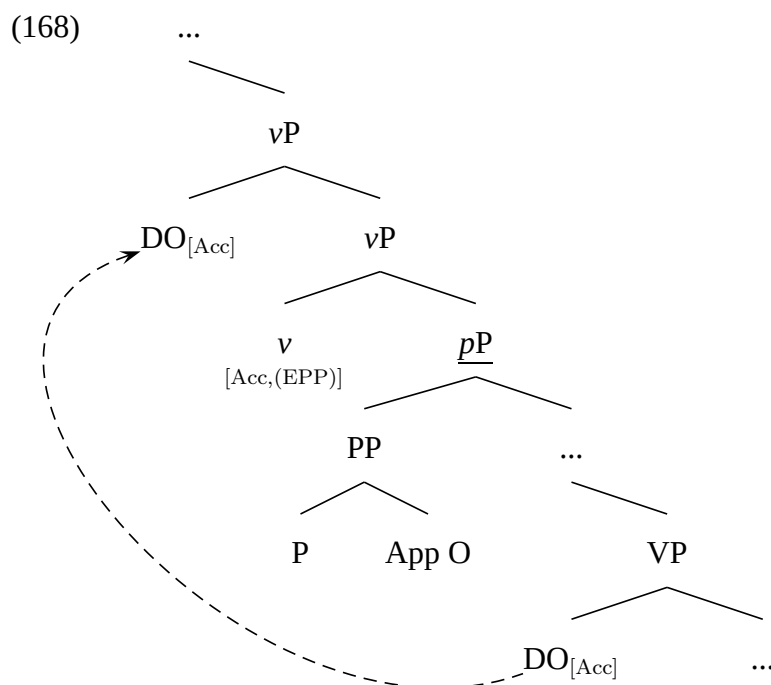
- (167) The c- and d- type structures: [... *(Theme Ob) ... [Applied Ob-Acc] ... (Theme Ob.)...]]

Based on the fact that the placement of the theme argument on the left side of the applicative element changes the binding relation between the two objects, we have claimed that there is an A-position higher than the applicative argument position. One thing is clear: such a position should not be available for the direct object in the structures in which there is the [... Appl Ob. → Deep Ob. ...] word order restriction. A possible clue for explaining the generalization in (156i) seems to be in finding a way to relate the inaccessibility of the position, the accusative case assignment and the phonological nullness of the preposition.

In Chapter 3, we have observed that how morphological accusative case marking is related to the definiteness of a direct object. I claimed that *v* is the accusative case checker for direct object and the accusative case feature on a direct object is obligatorily realized as *-n* when the direct object is definite. (cf. 3.1).

The morphological variations of the Amharic applicative constructions are derived partially by the fact that the applied object could be either selected by a preposition or accusatively case marked, let us call them prepositional and accusative applied objects. For the theme object, on the other hand, the accusative case is the only option even when the phonological realization of its case feature is restricted for definite ones.

The theme object can be either on the left-hand side or the right-hand side of the prepositional applied object (cf. 167). Judging from this data, I claim that the theme object is accusatively case marked whether it is at spec vP or not in the Amharic applicative constructions. I assume that case is checked under Agree and the Move operation is caused optionally by the EPP feature (cf. Chomsky 2000, 2001). I will assume, then, à la Chomsky, that the accusative case is valued via the Agree process between *v* and the theme DP. Thus in the structure of the c- and d- types, the theme object is case checked by *v* at the position below the applied object.

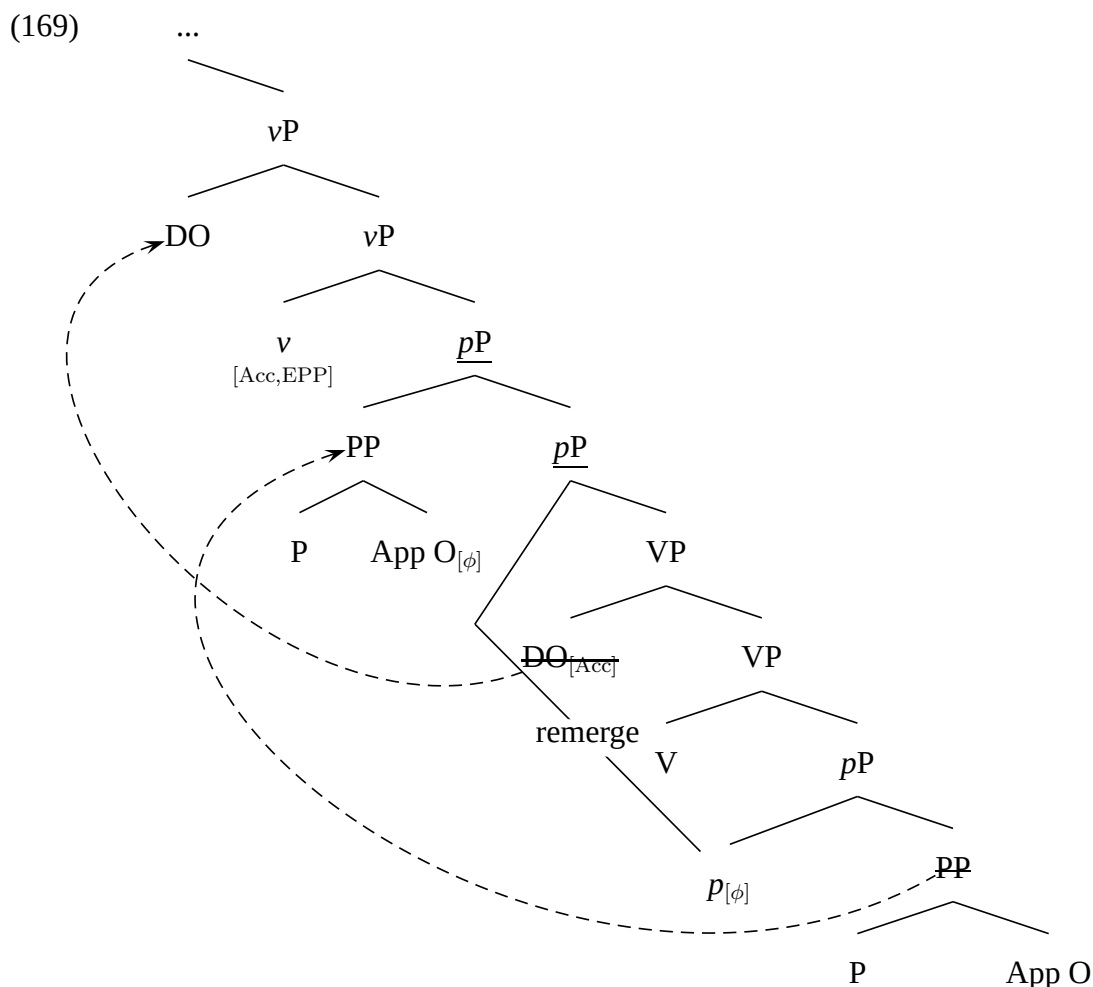


The applied object is at the higher position and closer to *v*. However, it is case checked inside PP. It does not block the Agree relation between the theme object and *v*.

I will come back to this point immediately.

The Move operation is caused by the optional EPP feature on *v*. Although accusative case checking itself does not induce movement, I assume that the case matching between the theme object and *v* allows the theme object's movement into the spec *v*P. I assume that the EPP feature of *v* is checked only against DPs whose case feature is valued with *v* itself. In the applicative constructions whose applied object is selected by a preposition, I claim that the applied object is case checked inside PP by P. Thus, the only Dp that can check *v*'s [EPP] is the theme object but not the applied object (cf. 168). Thus corresponding to the presence of *v*'s [EPP], the theme object can be found on the left or right of the applied object.

However, the situation changes when the applied object also accusatively case marked with *-n*.



The first generalization in (156i) was about the correlations among the accusative applied object, the word order restriction and the lack of lexical preposition. I have claimed that in the Amharic applicative constructions, the applied object is always contained in a PP and, in the applicative constructions whose applied object is accusatively case marked, there is a null lexical preposition selecting the applied object. Thus, for the present approach, the relationship is between the nullness of lexical P and the accusative case checking. In the same configuration, when P is overt, the applied object is case checked inside PP . The covert/overt difference of P does not change the structure of PP . How can the applied object's case get accusatively marked inside PP ?

I will establish a relation between the nullness and the caselessness of P.⁵ P in the Amharic applicative constructions can come with or without the case feature that can check the case feature of its complement DP. When P does not come with case features, P is realized $\emptyset$ in Amharic (cf. 170).

- (170) a. i. $P1 \leftrightarrow \textbf{lä}$ / with [Case]
 ii. $P1 \leftrightarrow \emptyset$ / without [Case]
 b. i. $P2 \leftrightarrow \textbf{bä}$ / with [Case]
 ii. $P2 \leftrightarrow \emptyset$ / without [Case]

If there is no case feature to be valued with the case feature of the applied object inside of PP, the applied object has to be checked against *v*; that is the only other alternative in the structure.

There is a set of data that suggests the theme object and the accusative applied object that are marked with *-n* behave in a similar way. Just as accusatively case marked direct objects have to be definite and marked with $\textbf{}$, it is also the case that an applied object that is accusatively case marked has to be definite, as shown in (171).

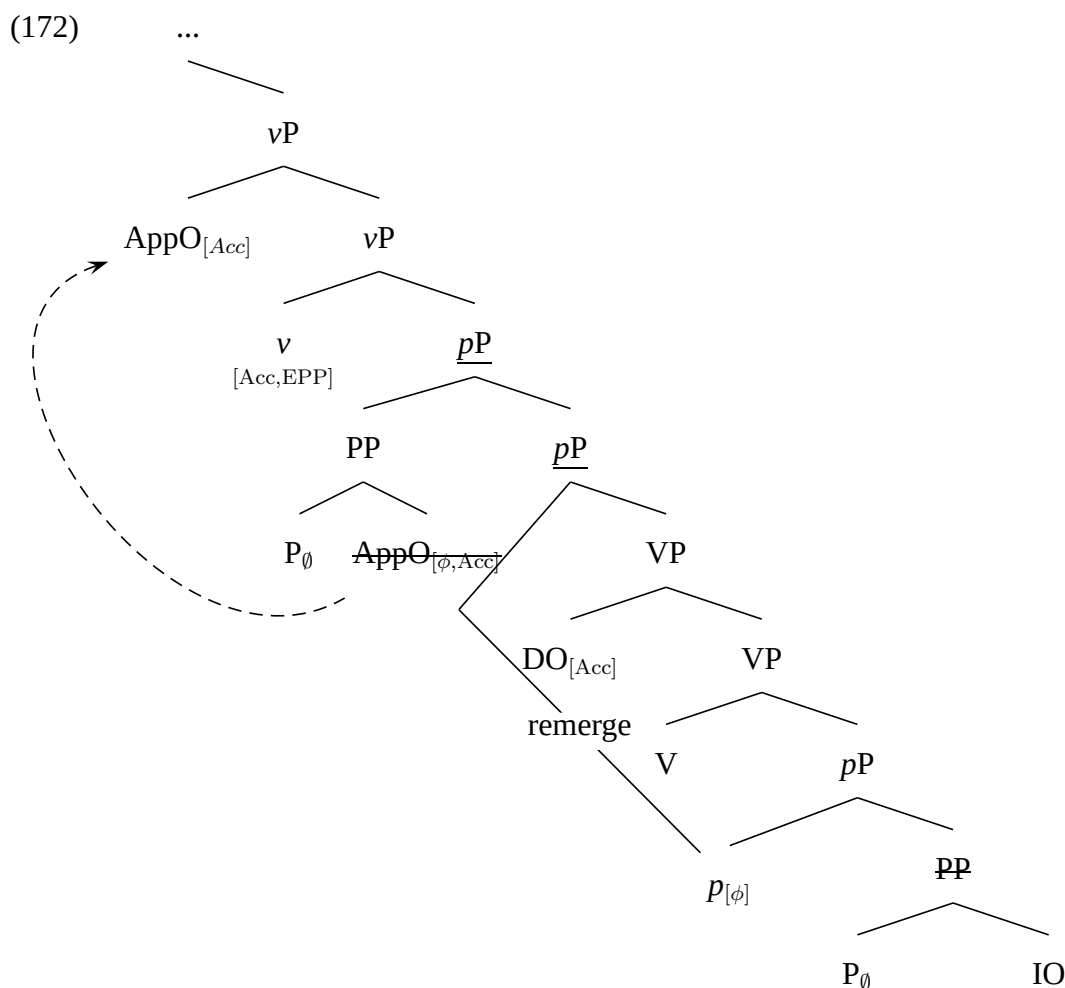
- (171) a. *aster mätṛəgiya-n bet-u-n täräg-äčč-**bb**-ät
 Esther broom-Det-Acc house-Det-Acc cleaned-Sub.3FS-**bb**-Ob.3MS
 ‘Esther cleaned the house with a broom’
 b. *astämäri-ən gänzäb-wa-n wässäd-ku-**ll**-at
 teacher-Acc money-her-Acc took-Sub.1S-**ll**-Ob.3FS
 ‘I took a teacher her(teacher’s) money’ (Demeke 2003: 84)

Assuming that Amharic *v* has a multiple case checking option, in applicative construction with a covert lexical preposition, both the applied and theme object are case

5

Den Dikken (1995) also claims that non-theme objects of double construction constructions are selected by a null preposition. He relates the phonological nullness of a preposition to its lexical underspecification as opposed to the full lexical specification of an overt preposition.

checked by *v*. Thus, the fact that the same accusative case marker that appears on the theme object also appears on the applied object is not a mystery.



When *v* in (172) has the EPP feature to check, the closest DP against which *v* checks its accusative case feature is the applied object. This explains the fact that In the accusative applicative constructions, there is a word order restriction: the accusatively case marked applied argument must precede the theme object. This word order restriction is a consequence of the fact that the theme object is not the closest available DP for the EPP checking of *v*.

The control of object agreement by the applied and direct objects behave differently, the object agreement that cross-references the applied object is obligatory while the one

for the direct object is not (cf. 173).

- (173) a. aster mätṛəgiya-w-ən bet-u-n ṭärräg-äčč-**bb**-ät
 Esther broom-Det-Acc house-Det-Acc cleaned-Sub.3FS-**bb**-Ob.3MS
 ‘Esther cleaned the house with a broom’
- b. astämäri-ən gänzäb-wa-n wässäd-ku-**ll**-(at)
 teacher-Acc money-her-Acc took-Sub.1S-**ll**-(Ob.3FS)
 ‘I took a teacher her(teacher’s) money’ (Demeke 2003: 84)
- c. aster doro-wa-n arrädä-čč-(at)
 Esther hen-Def-Acc butchered-Sub.3FS-(Ob.FS)
 ‘Esther butchered the hen’

In §4.5.3, I have related the obligatory realization of an object agreement in applicative constructions to the remerge of the functional preposition by claiming that the object agreement morpheme that is realized for an applicative object is a phonological realization of the ϕ -features of p . On the other hand, I have claimed that the object agreement that is realized for a direct object is a phonological realization of the ϕ -features of v . There is no realization requirement for the latter. Judging from its realization requirement, in accusative applicative constructions, the object agreement realized for an applied object comes from the functional preposition while the definiteness restriction is delivered by the accusative *-n* that is suffixed to an applicative object.

4.10.2 On Generalization (156ii): a covert p and the availability of passivization

The second generalization in (156) relates the availability of passivization and the phonological covertness of p (156ii). In the Amharic applicative constructions, the passivization of the applied object is only allowed in the structure where there is no phonological realization of the applicative morpheme, i.e., the *d*- and *e*- structures. Be-

sides the shared morphological feature, the constructions also share another fact: they are both triadic expressions that involve a *possession* relation between the theme and applied arguments.

We have seen that the *e*-constructions are expressions that are termed *adverse* expressions (cf. Hailu Fulass 1974). In this type of constructions, the theme argument is always understood to be in the possession of the adversely affected argument. One of the data sentences Hailu Fulass (1974) shows an indefinite theme argument, (174). However, in his gloss he presents it as ‘(her) wallet’.

- (174) leb-očč-u Mulu-n borsa qamm-u-∅-at
 thief-Pl-Def Mulu-Acc wallet robbed-Sub.3Pl-*p*-O.3FS
 ‘the thieves robbed Mulu of (**her**) wallet’

The *d*-expressions are always, as far as I have seen, built with *give*-type dative expressions as in (175). Dative expressions are often argued to denote a possession relation between the theme and goal arguments.

- (175) a. dawit **lä**-aster mäṣhaf-u-n sätt-ä-∅-at
 David **lä**-Esther book-Def-Acc gave-Sub.3MS-*p*-Ob.3FS
 ‘David gave Esther the book’
 b. dawit **lä**-lejj-očč-u mäṣhaf-očč-u-n läggäs-ä-∅-accäw
 David **lä**-child-Pl-Def book-Pl-Def-Acc donated-Sub.3Pl-*p*-Ob.3P
 ‘David donated the children the books’
 c. təmhərt bet-u **lä**-aster-u təleq šəlləmat səlläm-ä-∅-at
 school-Def **lä**-Esther big prize gave-Sub.3MS-*p*-Ob.3FS
 ‘the school gave Esther a big prize’

Thus, the groups of applicative constructions differentiated by the phonological realization of *p* are also different with respect to having a requirement for a possession relation between the theme and applied objects. Thus, the overt/covet realization in the two groups of applicative constructions can be informally related to the presence of the possession interpretation as in (176).

- (176) a. i. $p_1 \leftrightarrow \mathbf{bb-}/$ without the requirement of a possession relation
 ii. $p_1 \leftrightarrow \emptyset/$ with the requirement of a possession relation
 b. i. $p_1 \leftrightarrow \mathbf{ll-}/$ without the requirement of a possession relation
 ii. $p_1 \leftrightarrow \emptyset/$ with the requirement of a possession relation

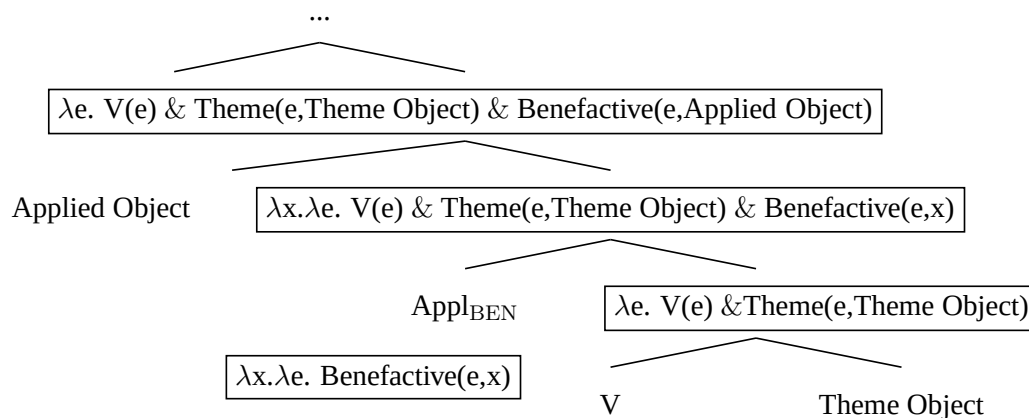
However, the set of rules for the phonological realization of p is untenable from a perspective based on *Late Insertion*. The phonological realization of p to be after syntax; a semantic notion such as possession cannot be accessible as a reference. If the presence of a possession interpretation is a reference for the phonological realization of p , such information must to be encoded in a structure morpho-syntactically.

Pylkkänen (2002) divides the applicative constructions into two groups, high and low applicatives. The latter is claimed to have the two arguments in a possession configuration. We have seen a tree diagram from Pylkkänen (2002) in (126b). It was a tree diagram for high applicative constructions. Let us now see Pylkkänen's (2002) differentiation of the high and low applicative constructions.

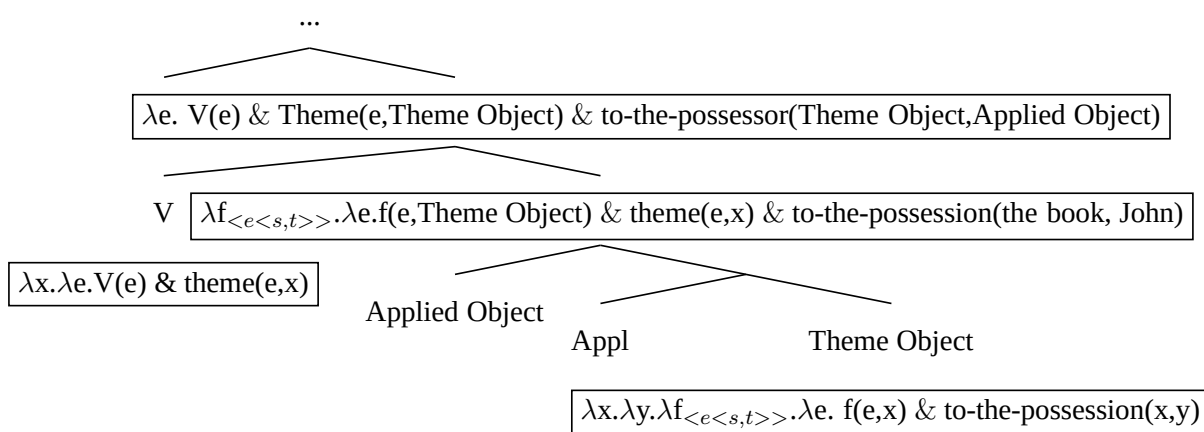
4.11 Pylkkänen 2002: High and Low Applicatives

Pylkkänen (2002) claims that, despite the apparent similarity often observed among the applicative constructions of different languages, there are two different basic structures for the applicative constructions of all languages: *high* and *low* applicatives. She claims that the difference between the two types of applicative structures is manifested, for example, in their semantics. While in high applicatives, to have an applicative interpretation means to denote the relation between an event that is denoted by the verb phrase and an individual in low applicatives, the relation between two individuals, an applied and a deep object, is denoted. The different structures are given in (177&178).

(177) High Applicative



(178) Low Applicatives



4.11.1 High Applicatives

Pylkkänen (2002) first gives a benefactive construction from a Bantu language, Chaga, as in (179).

(179) Chaga Benefactive: (Bresnan and Moshi 1990: cited in Pylkkänen 2002: 17)

- a. N-1S-PRES-eat-i-a m-ká k-élyá
 Foc-1S-Pres-eat-Appl-FV 1-wife 7-food
 ‘He is eating food for his wife’
- b. N-1S-PRES-eat-i-a m-bùyà
 Foc-1S-Pres-eat-Appl-FV 9-friend

‘He is eating food for his wofe’

In constructions like the one in (179), an applied argument does not bear any benefactive relation with the theme object, *food*, of the verb itself. It is the event, *eating food*, denoted by the whole verb phrase, that is in a benefactive relation with the applied object, *his wife*. The same can be said for an instrumental relation between the instrument and the basic object in instrumental applicative constructions as the one in (180) from Chicheŵa.

(180) Chicheŵa Instrumental: (Baker 1988: 354, cited in Pylkkänen 2002: 18)

- a. Mavutu a-na-umb-ir-a mpeni mtsuko
 Mavuto Sp-Past-mold-Appl-Asp knife waterpot
 ‘Mavutu molded the waterpot with a knife’

4.11.2 Low Applicatives

On the other hand, in some applicative constructions, like the English double object construction, the applied object and the basic object are always in a possession relation. Pylkkänen (2002) also considers the Hebrew possessor dative construction (cf. 182) and one type of the Japanese Adversative passive constructions (cf. 183) to be low applicative constructions because, in these constructions, there must be a possession relation between the applied and basic objects.

(181) English

- a. I baked him a cake

(182) Hebrew Possessor Dative (Landau 1999, cited in Pylkkänen 2002: 43)

- a. ha-yalda ilkela le-Dan et ha-radio
 the-girl spoiled to-Dan Acc the-radio
 ‘the girl broke Dan’s radio on him’

(183) Japanese Low Adversative

- a. Hanako-ga Dorodo-ni yubiwa-o to-rate-ta
 Hanako-Nom thief-DAT ring-Acc steal-Pass-Past
 ‘Hanako was affected by the thief stealing her ring’

4.11.3 The Amharic *d-* and *e-* constructions and Low Applicatives

These is a set of data that might suggest that the division of two types of applicative constructions suggested by Pylkkänen (2002) is on the right track for Amharic as well. It is the benefactive applicative expressions that are formed on *give*-type dative expressions. In these constructions, the applicative morpheme is phonologically realized, as shown in (184).

- (184) a. dawit *lä*-aster mäṣhaf-u-n sätt-ä-*ll*-at
 David *lä*-Esther book-Def-Acc gave-Sub.3MS-*ll*-Ob.3MS
 ‘David gave the book on the behalf of Esther’
 b. dawit *lä*-lejj-očč-u mäṣhaf-očč-u-n läggäs-ä-*ll*-accäw
 David *lä*-child-Pl-Def book-Pl-Def-Acc donated-Sub.3Pl-*ll*-Ob.3MS
 ‘David donated the books on the behalf of the children’
 c. aster tölēq šöllōmat sällām-ä-*ll*-at
 Esther big prize gave-Sub.3MS-*ll*-Ob.3FS
 ‘the school gave a big prize on the behalf of Esther’

Not only in their morphological difference, but also syntactically, the applied objects of these constructions are contrasted with those of *give*-type dative applicative constructions. The applied objects of the benefactive constructions like the ones in (184) cannot be passivized while, as we have observed in (145), the applied objects of the dative applicative can.

- (185) a. *aster mäṣhaf-u-n tä-sätt-äčč
 Esther book-Def-Acc Psv-gave-Sub.3FS
 ‘Esther was given the book on the behalf of’

- b. **lā*-lejj-očč-u məṣhaf-očč-u-n tā-läggäs-äčč
 child-Pl-Def book-Pl-Def-Acc Psv-donated-Sub.3Pl-Ob
 ‘The children were donated the books on the behalf of’
- c. *aster- təleq šəlləmat tā-sälläm-äčč
 Esther big prize Psv-gave-Sub.3MS-Ob.3FS
 ‘Esther was given a big prize on the behalf of’

So far, I have assumed a uniform structure for the process of applicativization (cf. 129). With this assumption, one is forced to admit that the benefactive (184) and *give*-type dative applicative expressions in (175) would have the same underlying structure. However, there are morphological and syntactic differences between the two applicative constructions. The present analysis would not be able to give any structural account for on the differences

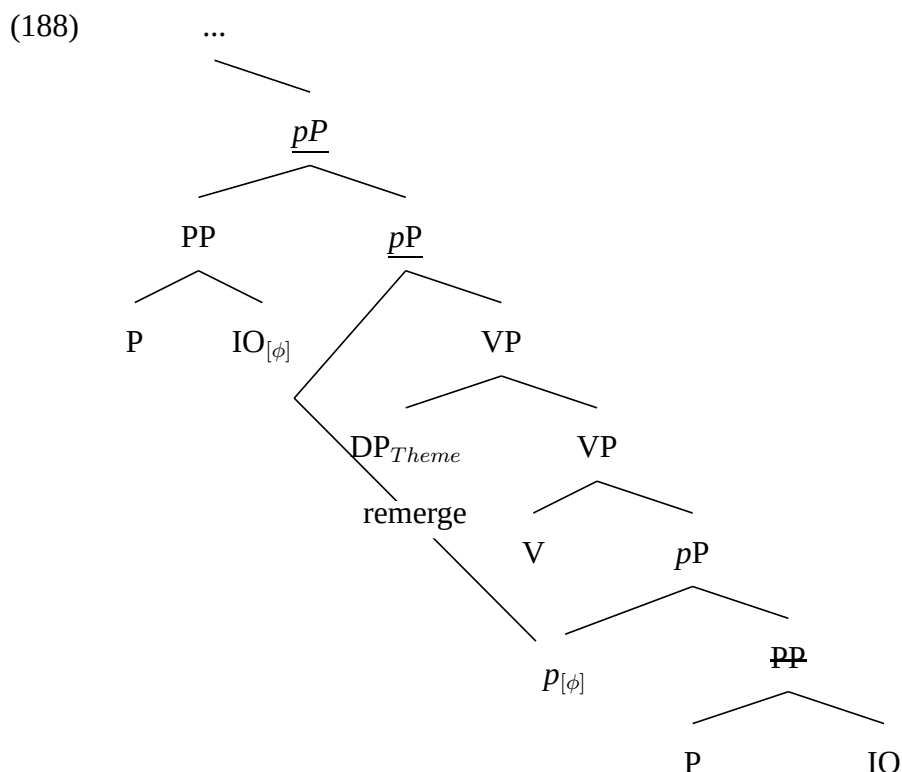
Following Pylkkänen (2002) in assuming that there are different structures of applicative constructions, I assume that there are structural differences between the applicative constructions that encode a possession relation between their two objects and ones that do not.

Thus, the

The present analysis proposes a structure for the process of applicativization that involves an underlying prepositional structure that embeds the applied object in the complement position.

Expressions of sentential possession are often claimed to contain a prepositional syntax. For example, Freeze (1992) proposes that sentential possession involves a PP in which the possessor DP is selected by P while the possessum DP is in the spec position of P. We have seen in the previous chapter (cf. §3.2.2) that the sentential possession in Amharic has a morphological structure that treats the possessor as an object, as shown in (186). The morphological structure is shared by the give-dative and adverse constructions (cf. §3.2.2).

structure for the applicative constructions without a possession interpretation given in (188) to the one with a possession interpretation in (187).



The morphological differences between the contrasted sets of applicative expressions that are built on the same dative verbs, the covert/overt realization of *p*, can now be explained. Assume that phonological realizations of words are inserted late, after the building of syntactic compositions is complete, i.e., *Late Insertion*, and the idea that functional elements can have different phonological exponents in different morpho-syntactic environments (cf. the discussions of the derivational morphemes in Chapter 2). *p* being a functional element, it can be expected to be realized variously depending on the structures around it. The set of informal rules for the phonological realization of *p* that I illustrated in (176) can be structurally translated. A possible structural difference between the functional prepositions of the applicative structure with and without the possession relation is that in the structure in which a possession relation is encoded

between the applied and theme objects, the functional preposition merges with an argument twice to have two spec positions, one at the original merge location with the theme or possessum object and another in its remerged projection with the applied object. In the applicative constructions that do not encode a possession relation, *p* merges with an argument just once with the applied argument in its remerged projection. By the end of syntactic derivation, the functional preposition can form a relation with DP once or twice. The functional preposition can have different derivational histories in the two different syntactic structures. We can claim that the difference in derivations encoded in syntax can be evaluated for the phonological realization for the two prepositions that can be used as a functional preposition in Amharic, as formalized in (189).

- (189) a. i. $p_1 \leftrightarrow \text{ll-}/$ with one spec position during the derivation
 ii. $p_1 \leftrightarrow \emptyset/$ with two spec position during the derivation
 b. i. $p_2 \leftrightarrow \text{bb-}/$ with one spec position during the derivation
 ii. $p_2 \leftrightarrow \emptyset/$ with two spec position during the derivation

By establishing the structural difference between the applicative constructions that have the requirement for a possession interpretation between the theme and applied object and those that do not have the possession requirement, we can also account for the morphological difference between the four types of applicative constructions: they are induced the selection of different phonological exponents for the remerged functional preposition.

Thus, one shared property of the *d*- and *e*- type applicative constructions in Generalization in (156ii) is explained. However, another shared property, the ability to passivize the applied object remains to be explained.

At this moment, I have no perspectives on exactly how the passivization of the applied object is allowed only in the structures that we consider to involve a possession re-

lation between the theme and applied arguments. Although the *d*- and *e*- types applicative constructions share a possession requirement, there is a robust difference between the two: the applied object is selected by an overt preposition in the *d*-constructions while it is accusatively case marked in the *e*-constructions, as shown in (190).

(190) a. The *d*-type applicative construction

aster ***lä***-dawit doro-wa-n säṭa-äčč-əw
 Esther ***lä***-David- hen-Def-Acc gave-Sub.3FS-Ob.3MS
 ‘Esther gave David the hen’

b. The *e*-type applicative construction

lebä-očč-u mulu-n borsa-w-ən qämm-u-at
 thief-Pl-Det Mulu-Acc wallet-Def-Acc robbed-Sub.3MPI-Ob.3FS
 ‘the thieves robbed Mulu of the wallet’ (Hailu Fulass 1974: 117, (9a))

There is also a definiteness restriction difference between the applied object of the constructions in (190). I have claimed that the definiteness restriction is the sign of the accusative case checking with *v* and the accusative applied object moves to the specifier position of *v*. Thus the word order restriction is expected to be observed in the *e*-type but not in *d*-type (cf. 191).

(191) a. The *d*-type applicative construction

aster (*doro-wa-n) ***lä***-dawit (doro-wa-n) säṭa-äčč-əw
 Esther (hen-Def-Acc) ***lä***-David- (hen-Def-Acc) gave-Sub.3FS-Ob.3MS
 ‘Esther gave David the hen’

b. The *e*-type applicative construction

lebä-očč-u (borsa-w-ən) mulu-n (borsa-w-ən)
 thief-Pl-Det (wallet-Def-Acc) Mulu-Acc (wallet-Def-Acc)
 qämm-u-at
 robbed-Sub.3MPI-Ob.3FS
 ‘the thieves robbed Mulu of the wallet’ (Hailu Fulass 1974: 117, (9a))

4.12 Conclusion

Based on the presence of applicative constructions that realize two prepositional elements in Amharic, I have developed an analysis on applicative constructions based on the idea that the syntax for prepositional phrases can include functional and lexical prepositions as argued by Huybregts and van Riemsdijk (2001). The applicative morpheme is the functional preposition that remerges with the verbal domain and projects an applicative element. This chapter analyzed applicative constructions of the non-doubling, canonical, type to have two prepositional elements and the lexical preposition can be overt or null. Thus, the present analysis claims that applicative constructions in general always involve a complex prepositional phrase and the remerge of the functional preposition.

Just as the functional preposition can be overt or null, it is expected that the lexical one can be overt or null as well. This approach predicts (2×2) four possible morphological variations of applicative constructions with respect to the distributions of the prepositional and applicative elements, or the lexical and functional prepositions. The variations are shown in (192)

(192) Thh b-structure: [... [_{PP} P_∅ ...] [_{pP} p ...]]

The c-structure: [... [_{PP} P ...] [_{pP} p ...]]

The d-structure: [... [_{PP} P ...] [_{pP} p_∅ ...]]

The e-structure: [... [_{PP} P_∅ ...] [_{pP} p_∅ ...]]

Amharic happens to be a language in which there are applicative constructions with morphologically various realizations with respect to the applicative morpheme and the preposition. The complex PP approach of this chapter could offer an uniform account for the applicative constructions.

Besides the morphological variations that exist among the applicative constructions

in Amharic, there are also syntactic differences among the applicative constructions in Amharic. I summarized the differences by dividing the constructions into two groups: (i) applicative constructions that do not realize their *P* have its applicative argument accusative case assigned and obligatorily place it on the left hand side on the theme object; (ii) applicative constructions that do not realize their *p* have the requirement that the applied object and the theme object are in a possession relation.

Based on the the binding data between the theme and applicative, I have concluded that there is an A-position on the left hand side of the applied object position that is available for the theme object to move. It is the specifier position of *v*. In applicative constructions that do not realize *P*, the applied object does not get its case feature checked in PP. In Amharic, the *P* that does not have a case feature is realized with an $\emptyset$ exponent. In this situation, the applied object is case checked by *v*. Assuming that a movement of a DP that is caused by the EPP feature of *v* requires the case-match between *v* and the DP, the applied object that is accusatively cased checked is the closest DP that can check *v*'s EPP. This situation predicts that there is a word order restriction when the applied object is accusatively case marked.

Applicative constructions that have a possession interpretation requirement do not realized the applicative morpheme. From the perspective of the present chapter, the applicative morpheme is the remerged *p*. I have claimed that there is a structural difference between the applicative constructions that have the possession interpretation requirement and those that do not. In the structure of applicative constructions with a possession interpretation, the theme object is introduced into the derivation inside PP to form the possession relation with the applied object. The theme object is merged with *p*, thus *p* hosts two arguments in its specifier positions during the derivation twice. In the structure of the applicative constructions without the possession interpretation, *p* only merges with the applied object in the remerged position. I claimed that the number

of the specifier positions p provides to arguments determines the phonological realization of p . The morphological variations of the applicative constructions in Amharic are delivered by the selection of different phonological exponents for the functional and lexical prepositional elements. The selection of an exponent for the prepositions is determined by the difference in the morpho-syntactic environment.

Chapter 5

Conclusion

Complex verbal expressions, transitive, causative and applicative constructions in the languages in the Horn of Africa display interesting morphological variations. There are instances in which an expected occurrence of a derivational morphemes is not observed. The main focus of this dissertation was such unexpected distributional patterns of the derivational morpheme involved in the complex verbal expressions in Amharic, Afar and Oromo. I adopted an approach based on ideas from Distributed Morphology: (i) the phonological realization of morphemes is after spell-out and (ii) the selection of an exponent is determined by the morpho-syntactic environment.

The distributional patterns of the Amharic transitive ***α***- and the Cushitic causative ***-s***, which is also shared by Ethio-Semitic Amharic, are accounted for by claiming that the two morphemes are phonological exponents of the *v* that introduces an external argument: *v*^{*}, along with $\emptyset$, and in the structure of causative-of-transitive expressions, two *v*^{*} layer up over a Root. The latter claim was made based on the presence of the sets of derived expressions in languages, like Afar and Oromo, in which there are incremental applications of the same morpheme that derive a transitive expression and a causative-of-transitive expression.

The selection of exponents is determined according to their morpho-syntactic environment. The structural differences in the morpho-syntactic environment determine the selections. For the exponent selections of v^* , the morpho-syntactic environment can be shaped differently based on three factors: (i) v^* 's structural proximity to its root: local to the root (inner) or separated by another v^* (outer); (ii) being dominated by v^* ; (iii) selecting an agentive root. Based on these structural specifications, I claimed that different exponents, including $\emptyset$, are selected for v^* in Afar, Oromo and Amharic.

A similar morphological situation was attested among the applicative constructions in Amharic. Amharic has various applicative constructions differentiated by the realization two prepositional elements present in the structure. Based on the fact that some applicative constructions can realize two prepositional elements in the structure, I claimed all applicative constructions have an underlying structure in which there a prepositional phrase that contains two prepositional elements, a functional preposition, p , and a lexical preposition, P , and the applied object. In the process of applicativization, the functional preposition remerges with the verbal domain while P remains with the applied object. The morphological variations of the applicative constructions in Amharic are derived by the covert/overt realization of these two prepositional elements. Sets of exponents for p in Amharic are: (-ll- or $\emptyset$) or (-bb- or $\emptyset$). The selection of an exponent for p is determined by the number of specifier positions it provides during the derivation. The lexical preposition, P , can also be either covert or overt based the presence/absence of a case checking relation that between P and the applied object. If P has a case feature to value that of the applied object, it is realized as **lä** or **bä** and when P lacks the case feature, it is realized as $\emptyset$.

In both the derivations of the transitive/caustive and applicative constructions, the presence of morphological variations of the constructions are delivered by the fact that their derivational morphemes, v^* in the transitive/causative constructions in Amharic,

Afar and Oromo and *p* and *P* in the applicative constructions in Amharic, have a set of different phonological exponents. The selection of exponents for these morphemes is determined in the morpho-syntactic environment in which the derivational morphemes are placed.

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