On the Syntax of Applicative and Causative Constructions

ON THE SYNTAX OF APPLICATIVE AND CAUSATIVE CONSTRUCTIONS

by

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DEDICATION

To my parents, Young Jin Jung and Sung Jai Lee, and my little brother, Yuchul Jung.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS

Acc	Accusative
APPL	Applicative affix
Comp	Complementizer
CAUS	Causative affix
BEN	Benefactive affix
Dat	Dative
Decl	Declarative
Fut	Future
fv	Final vowel
Gen	Genitive
Hon	Honorific
Impr	Imperative
INDIR.CAUS	Indirect causative affix
LEX.CAUS	Lexical causative affix
Neg	Negation
Nom	Nominative
OM	Object marker
PASS	Passive affix
Past	Past
Perf	Perfective
pl	Plural
ppl	Participial
Pres	Present
Rel	Relativizer
sg	Singular
Subj	Subject
SYN.CAUS	Syntactic causative affix
Top	Topic

ABSTRACT

This dissertation investigates the argument structure of verb phrases by identifying the syntactic roles and locations of the functional heads it consists of. Since the early 1990s, it has been widely accepted that the basic verb phrase consists of two distinct projections of a functional layer *v*/VoiceP, and a lexical layer √/VP (Chomsky 1995, Hale & Keyser 1993, Harley 1995; 2008a, Kratzer 1996, Marantz 1997). Recent developments in generative grammar, however, suggest that it may comprise of three projections (Pylkkänen 2002; 2008, Cuervo 2003, Collins 2005, Alexiadou et al. 2006, Harley 2013a, Merchant 2013): two functional projections – Voice, which introduces the external argument and licenses accusative Case; verbalizing *v*, which marks the eventuality type *be/do/become/cause* – and an acategorial lexical root (Cuervo 2003, Harley 2013a).

In this dissertation, I explore the consequences of adopting the tripartite theory of verb phrases with two particular foci: (i) the structure of applicative and causative constructions and the interactions between the two; (ii) languages where the applicative and causative constructions are formed by attaching affixes to the verbal root. The main proposal of this dissertation is that various morpho-syntactic behaviors of applicatives and causatives and their cross-linguistic variation can be captured with two tools: (i) the hypothesis of the tripartite verb structure; and (ii) an understanding of the selectional criteria of the functional heads – Voice, Appl, and *v* – and their head-specific properties.

The tripartite assumption solves for us some empirical puzzles and raises some new questions. I show that the three major achievements of the tripartite hypothesis are that it provides a syntactic account of the constraints on applicative and causative affix

ordering, the distinct patterns of functional heads in their ability to introduce arguments, and the disparate morpho-syntactic behaviors of the three causative types due to the size of their complements. I then provide answers to some new questions that follow from the transition to the tripartite hypothesis. I elaborate the selectional mechanisms of the Voice, Appl, and *v* heads involved in applicatives and causatives. I reinterpret previously established facts about applicatives and causatives within the updated verbal structure.

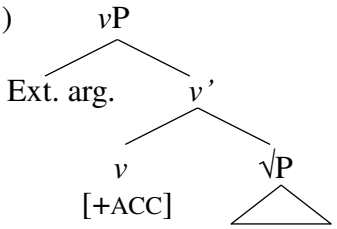
CHAPTER 1. INTRODUCTION

1. The Composition of Verb Phrases

This dissertation aims to investigate verbal argument structure by identifying the syntactic roles and locations of the functional heads it consists of. Since the early 1990s of the generative scrutiny, a widely accepted assumption about verb phrases is that they are split into two distinct projections, comprised of a functional layer *v*/VoiceP, and a lexical layer √/VP (Chomsky 1995, Hale & Keyser 1993, Harley 1995; 2008a, Kratzer 1996, Marantz 1997, and many others). Formal syntacticians who adopt this assumption posit (1) as the structure for a core verb phrase.

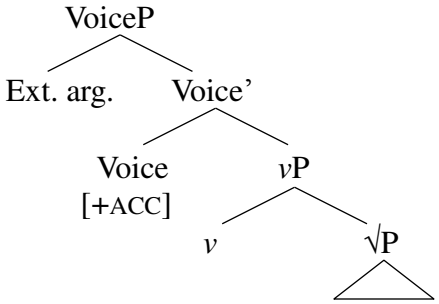
Recent evidence, however, suggests that it may be tripartite (Pylkkänen 2002; 2008, Cuervo 2003, Collins 2005, Alexiadou et al. 2006, Harley 2013a, Merchant 2013, a.o.). A particular claim of this approach is that a verb phrase contains two functional layers and a lexical layer – VoiceP, which is responsible for introducing the external argument and accusative Case licensing; a verbalizing *v*P, which verbalizes its complement and marks the eventuality type *be/do/become/cause*; at the bottom is a category-neutral lexical RootP (Cuervo 2003, Harley 2013a, a.o.). This approach is represented in the structure in (2). In essence, this position diverges from the traditional bipartite thesis in that the roles of external argument introduction/Case licensing and verbalizing are divided into two distinct functional projections –Voice and *v*, respectively.

(1)



Hypothesis #1

(2)



Hypothesis #2

In this dissertation, I explore the consequences of adopting the hypothesis in (2), with two particular foci. First, I investigate two types of constructions – applicatives (verbs that mean 'give' / 'to the benefit of') and causative (verbs that mean 'make' / 'cause') – and their interaction. Both applicative and causative add extra structure to the basic verb phrase and introduce an additional argument. However, the function of the introduced argument differs – applicatives add an 'object', whereas causatives add a 'subject', as shown in the argument structure alteration in (3). Second, I primarily, though not exclusively, examine languages where applicative and causative constructions are formed by adding affixes to the verbal root. The Korean equivalent of (3) presented in (4) illustrates this correlation between the appearance of a verbal suffix and the newly added argument. Assuming that the addition to the verbal morphology is a marker of the derivational history (Baker 1985), comparing the patterns resulting from attaching applicative and causative affixes to the verbal root will provide us with clues about the basic verb structure.

(3) a. John baked a cake.
b. John baked **Mary** a cake.
c. **Bill** made John bake a cake.

(4) a. Yenghi-ka ppang-ul kwuw-ess-ta.
Yenghi-Nom bread-Acc bake-Past-Comp
'Yenghi baked bread.'

b. Yenghi-ka **Cheslwu-eykey** ppang-ul kwuw-**ecwu**-ess-ta.
Yenghi-Nom **Chelswu-Dat** bread-Acc bake-**APPL**-Past-Comp
'Yenghi baked Cheslwu a cake.'

c. **Emma-ka** Yenghi-eykey ppang-ul kwup-**keyha**-ess-ta.
mother-Nom Yenghi-Dat bread-Acc bake-**CAUS**-Past-Comp
'Mother made Yenghi bake bread.'

In what follows, I argue that various morpho-syntactic behaviors of applicatives and causatives and their cross-linguistic variation can be captured with two tools: the tripartite hypothesis about the verb structure in (2) and an understanding of the syntactic properties of the functional heads pertinent to argument structure alteration.

2. The Functional Heads in Applicatives and Causatives

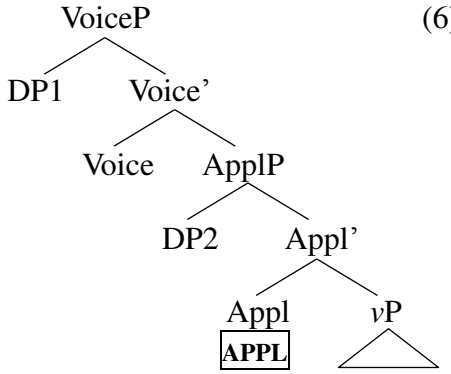
Adopting the hypothesis in (2) for applicative and causative constructions has some theoretical repercussions, whose results are summarized as below:

- An applicative head (i.e., Appl) can be located between the *v*P and VoiceP, as in (5) – termed a *high applicative* head by Pylkkänen (2002; 2008).[1] A causative head (itself a *v*) can select among the three different types of projections rootP, *v*P, and VoiceP, as in (6). That is, causative head is either *root-selecting*, *verb-selecting*, or *Voice-*

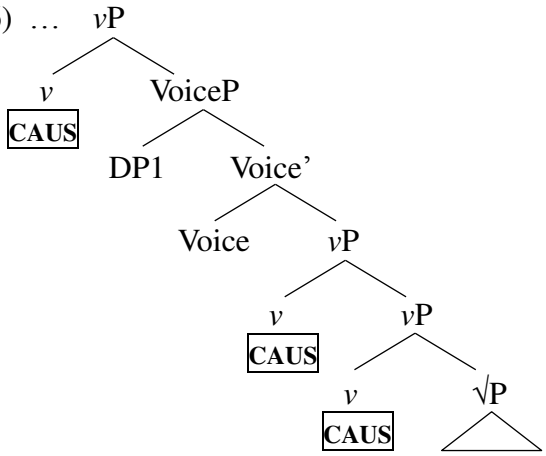
[1] The location of Appl can vary just like its causative counterpart. Unlike benefactive applicative which exemplifies the high Appl type in (2), the locative applicative in Bantu is claimed to be above VoiceP (Buell 2005, Jung 2013a; b), which I do not get into in the current work. This dissertation focuses on the high Appl between *v*P and the first VoiceP, as in (2). However, there is an extensive literature also discussing its low variant (Pylkkänen 2002; 2008) (alternatively labelled as P_{HAVE} in Harley 2002), which is located below the verbal root. I do not commit to either labels of low Appl or P_{HAVE}, however, switching between the terms when necessary. See (7), where the argument introduced by the so-called low Appl/P_{HAVE} is represented simply as a root-internal Goal.

selecting. Below the applicative and causative affixes are glossed as APPL and CAUS, respectively.

(5)



(6)



- The functional heads Voice, Appl, and *v* in (5)-(6) vary in whether they project a verb-external argument. Voice and Appl introduce an external argument in their specifier position, whereas the pure verbalizer *v* is not able to do so. The relative positions of the external arguments of Voice and Appl are fixed due to the syntactic hierarchy of the heads.

As we will see, these consequences and their interactions enable us to solve some empirical puzzles as well as give rise to some new questions. Three major achievements of the structural hypothesis in (2) are distributed throughout this dissertation. First, it provides a structural explanation for the ordering of the applicative and causative affixes and how the ordering mechanism varies cross-linguistically (Chapter 2). Second, the disjunctive behavior of a particular verbal affix in its ability to introduce an argument is ascribed to the fact that the affix can occupy distinct functional heads (Chapter 3). Third,

it captures the disparate syntactic and morphological behaviors of causative constructions by appeal to the varying complement size of the causative head (Chapter 2, 4, 5).

Meanwhile, the new hypothesis in (2) calls for revisiting the theory of applicatives and causatives that was established within the earlier hypothesis in (1) and raises some new puzzles. The questions can be divided into three domains – the issue of complement selection, the nature of the head and its argument, and the mapping between morphology and syntax. I mention the specific issues that belong to each category.

With regard to complement selection, some applicative heads that are diagnosed to appear above *v*P as in (5) exhibit restrictions on the type of their associated *v*P complements, while others do not. According to Pylkkänen's (2002; 2008) original analysis of (high) Appl, however, no such restriction is expected (Chapter 3). Second, the causative type whose head appears between the *v*P and VoiceP layers (i.e., the verb-selecting causative) in (6) manifests different patterns in the embeddability of unaccusative verbs cross-linguistically. This necessitates fine-grained selectional criteria in addition to specifying the complement type (Chapter 5).

A group of questions also arise about specifier selection. The functional head Appl is assumed to be an event projection. It follows that the entity argument of high Appl in (5) should be related to the event. However, arguments of certain high Appl's do not display the expected event-related properties, casting doubt on treating the Appl category as an event projection collectively (Chapter 3). Next, there are some Agent arguments that do not syntactically behave as arguments of Voice (Chapters 2, 4). This leaves us a task of how to classify these arguments – in other words, where in the structure are they located,

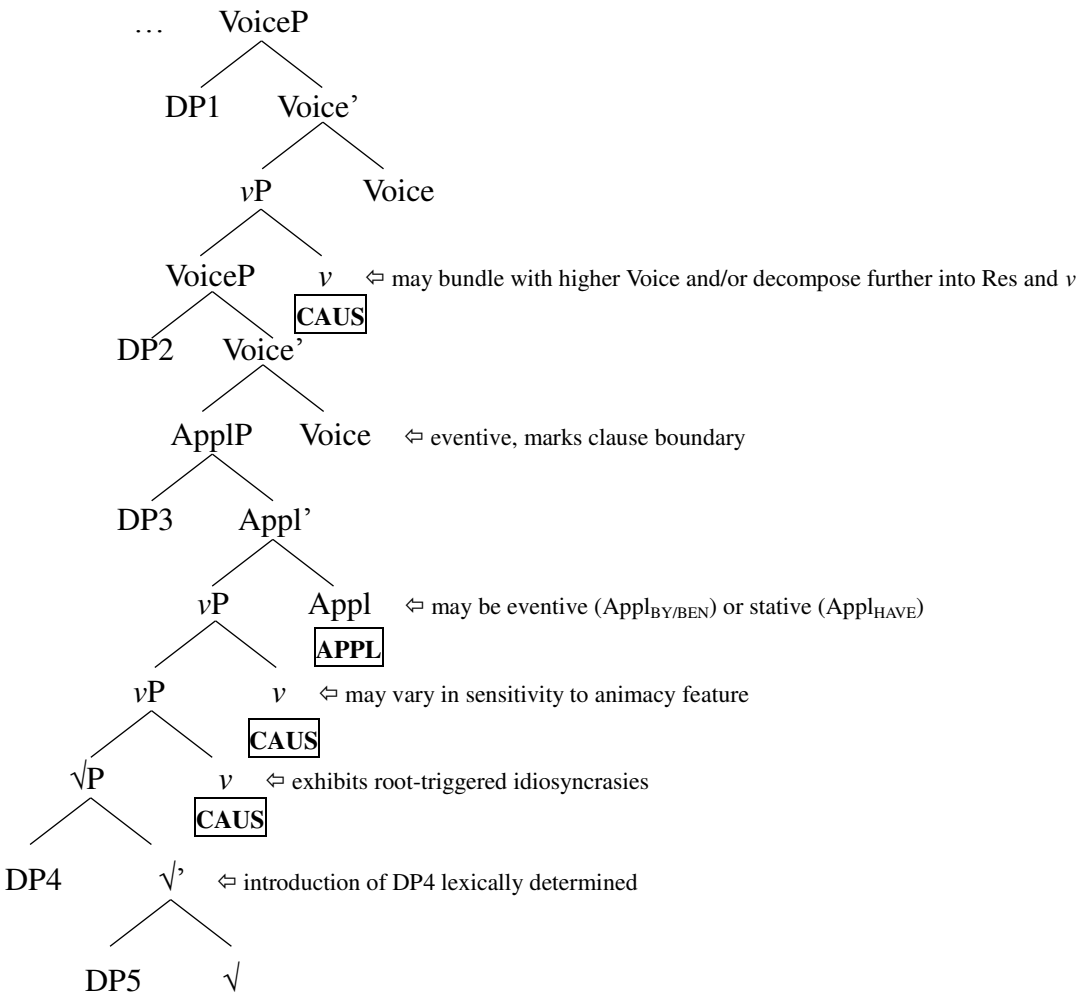
hosted by which head, if not Voice?

In the domain of the morphology-syntax interface, two questions are posed. In departing from the hypothesis in (1), one needs to reconsider the syntactic position of the causative affixes which used to be thought of as realizing the *v* head in the frameworks using in (1) (Chapters 2, 4). Within the current hypothesis in (2), one must ask where the causative suffix resides, whether it is in the *v* or Voice node. Finally, there is an issue of how to treat a causative predicate that consists of multiple morphemes (Chapter 4). Is syntactic decomposition of the causative head into further units motivated or is it simply an outcome of a postsyntactic morphological adjustment?

By the end of this dissertation, the three welcome corollaries of the hypothesis in (2) and some answers to the above inquiries will have been presented. The gist of this dissertation is encapsulated in (7). I argue that the verbal structure of applicatives and causatives in language cross-linguistically conforms to the syntactic hierarchy in (7), where the structural positions of the functional heads are transparently indicated by the relevant affixes.[2] The intra-linguistic and cross-linguistic variation in syntactic and morphological patterns results from the interplay of the selection of the functional heads and the head-specific properties as marked in (7).

[2] The head-finality reflects the suffixal status of the applicative and causative affixes in the languages of study.

(7)



3. Summary of the Chapters

The rest of this dissertation is organized as follows. In chapter 2, I examine the restrictions on morpheme ordering between benefactive applicative and causative suffixes in three languages – Hiaki, Korean, and Chichewa. I observe that in both Hiaki and Korean, the CAUS-APPL order is much more constrained than the APPL-CAUS order. I ascribe the restrictions on suffix ordering to the complement size of the three functional categories involved – *v*, Appl, and Voice. Specifically, I demonstrate that the APPL-CAUS

order involves a causative head that selects for a Voice complement (i.e., the topmost CAUS in (7)), whereas the CAUS-APPL involves a causative head that is adjacent to the root (i.e., the bottommost CAUS in (7)). Appl, on the other hand, must be located between *v*P and the first VoiceP. The ordering asymmetry results from the interaction between the (high) Appl head with a fixed structural location and the varying selectional properties of the causative *v*. Because the causative *v* that is root-adjacent has limited distribution, while the causative *v* which selects for Voice is a productive eventive layer, the fact that CAUS-APPL order is more restricted than the APPL-CAUS order sequence follows naturally. I then address the apparently contrasting behaviors of Chichewa applicative-causative morpheme ordering, where CAUS-APPL order is required with productive causatives. I demonstrate that the causative head at issue is the second verbalizer in (7) – a verb-selecting causative – rather than the topmost one, which is the Voice-selecting causative. This selectional and locational distinction of the productive causative head in Chichewa accounts for the ordering constraints for Chichewa that contrast with the Hiaki/Korean counterparts.

Chapter 3 consists of two parts. In the first half of the chapter, I look into the curious patterns of argument introduction associated with the so-called Korean benefactive suffix *-ecwu*. I provide an analysis of *-ecwu*, giving evidence that it can play two roles: one where it occupies the high Appl head and another where it occupies a split head of the bottommost *v* in (7) (resulting from 'fission' in the sense in Distributed Morphology, Halle 1997, Noyer 1997) and encodes the benefactive semantics. In this account, only the high Appl *-ecwu* introduces its own argument. The little *v -ecwu* cannot, in line with the

representation in (7). In arguing for this position, I contend that Korean high Appl *-ecwu* selects for a *v*P complement of a specific type – namely, vP_{DO} (associated with a range of agentive monotransitives and unergatives with incorporated object). Evidence from morphological distribution, comparison with other *v*'s, and purposive control further supports the link between argument-introducing ability and the different functional heads Appl and *v*. The second part of the chapter is devoted to locating the proposed analysis of *-ecwu* in the typology of the Appl and verbalizing heads. For a high Appl head, *-ecwu* imposes unexpected restrictions on the associated *v*P's. This peculiarity is attributed to the stativity of the high Appl head it occupies. I propose a new type of applicative, $Appl_{HAVE}$, to mark an external projection denoting stativity. I argue that *-ecwu* introduces a high Possessor argument (Shibatani 1994; 1996, Kim & Tomioka 2013), which enters into an abstract possession relation with the root-modified Theme argument. Novel evidence from depictive modification of applied arguments is presented that corroborates the analysis of $Appl_{HAVE}$ as a stative head. I then provide updated diagnostics that yield a three-way distinction among low Possessor (e.g., English), high Possessor (e.g., Korean), and high Beneficiary (e.g., Chichewa, Luganda) arguments. Finally, I introduce an optional verbalizing suffix in Bahasa Indonesia that has the same properties as the Korean verbalizing *v -ecwu*.

In chapters 4 and 5, I investigate issues related to the three types of causatives illustrated in (6)/(7). In chapter 4, I revisit the structure of the lexical and productive causatives in Korean under the hypothesis in (2). Throughout this dissertation, I argue that Korean lexical causatives are root-selecting causatives, instances of the bottommost

CAUS in (7), whereas productive causatives are Voice-selecting, instances of the topmost CAUS in (7). With respect to Korean lexical causatives, I present four arguments that the causative suffixes must occupy the root-adjacent verbalizing head in the framework in (2). I then discuss and pinpoint the source of the Causee argument associated with lexical causatives of transitive roots. I apply the eventiveness diagnostic used in chapter 3 – compatibility with depictive secondary predicates – to show that the Causees of lexical causatives of transitives must be categorized into two groups (Kim 1998, Son 2006). The Causee of lexical causatives of agentive transitives is an eventive external argument (Kim 2011 a; b), introduced by Appl_{BY}, whereas the Causee of lexical causatives of non-agentive transitives is a root-internal argument, as in ditransitive verbs. With regard to productive causatives, the proposal is two-fold. First, I decompose the causative predicate *-keyha* into two syntactic nodes of Res(ult) (Ramchand 2008) and the verbalizing *v* (i.e., the topmost CAUS in (7)) bundled with the higher Voice. Second, I reject the hypothesis that the complement of *-keyha* is a nonfinite TP, confirming the classification of Korean productive causative as the Voice-selecting type in (7).

Finally, in chapter 5, I delve into the category of verb-selecting causatives (i.e., the CAUS in the middle in (6)/(7)). As depicted in (7), this type of causative takes a *v*P complement. The embedded caused event thus lacks the VoiceP projection that introduces the external Agent-Causee. I assess this characterization of verb-selecting causatives with a comparative analysis of Hiaki indirect causatives and Chicheŵa oblique causatives. With no additional assumptions, the system in (6)/(7) has no way of prohibiting the verb-selecting causative head from selecting for an unaccusative *v*P, which by hypothesis lacks

the Voice projection. However, Hiaki indirect causatives formed with *-tevo* imposes certain limitations on unaccusative *v*P complements. I show that Hiaki *-tevo* imposes a particular requirement on its suppressed semantic Causee to be an animate entity, in addition to requiring that its complement be a *v*P (Tubino Blanco 2010, Harley 2013a, Tubino Blanco & Harley 2011). To encode this animacy requirement, I adopt the lexical property [+m] (+ mental) (Reinhart 2002, Key 2013). I then propose that Hiaki *-tevo* merges with *v*P's which possess with an interpretable [+m] feature associated with their semantic subject. Chicheŵa oblique causatives, tested as verb-selecting as well, are also sensitive to the animacy of the semantic Causee. However, the two verb-selecting causatives differ in whether the animacy condition for the semantic Causee is active for any *v*P complements or it is pertinent to only a subgroup of *v*P complements. Specifically, Hiaki *-tevo* takes *v*P's of any eventuality as long as it contains a [+m] feature for the semantic Causee. The Chicheŵa oblique causative head *-its* only imposes the [+m] requirement on agentive/causative *v*Ps (i.e., $vP_{DO/CAUS}$).

CHAPTER 2. SYNTACTIC CONSTRAINTS ON MORPHEME ORDERING: APPLICATIVE-CAUSATIVE INTERACTION

This chapter investigates the factors affecting the ordering of applicative and causative affixes. While applicative and causative constructions have been extensively studied independently, the configuration derived by the interaction of the two has drawn relatively less attention in generative grammar (though see Baker 1985; 1988, Chapter 7 for a GB account, and Alsina 1999; 2001 for an LFG account, Simango 1995 for an RRG analysis). This is partly because applicative and causative affixes in some languages (e.g., Chicheŵa) seem to be subject to a fixed morphological template (Hyman 2003), while others allow reordering of the two. In this chapter, I argue that the apparent morphological restrictions on ordering applicative and causative affixes and their cross-linguistic variation in fact result from the interaction of the three functional categories – two argument-introducing heads (i.e., Appl(icative) and Voice) and the verbalizing head (i.e., *v*). In particular, I show that the applicative-causative suffix ordering can be captured by the difference in the size of the complement taken by applicative and causative heads.

This chapter is organized as follows. Section 1 introduces the puzzle raised by the morphological orders of the applicative and causative suffixes in Hiaki and Korean. In section 2, I argue that the order of these suffixes is determined by a syntactic factor – the different selectional properties of the applicative and causative heads in Hiaki and Korean. In both languages, the applicative head selects for a *v*P complement, while the productive causative head takes a VoiceP complement. Consequently, the applicative suffix always

appears inside the productive causative suffix. A corollary of this proposal on the locus of the lexical causative head is presented in section 3. Section 4 verifies further predictions of the analysis concerning the interrelation between the type of the embedded roots and the CAUS-APPL/APPL-CAUS orders. In section 5, the preliminary analysis proposed in section 2 is refined based on the variations between Hiaki and Korean with respect to the Voice-bundling possibility of the causative heads and the argument licensing ability of the applicative head. In section 6, the proposal is extended to account for the applicative-causative interaction in Chichewa, which exhibits apparently opposite morphological restrictions. The variation between Hiaki/Korean on the one hand and Chichewa on the other is attributed to the difference in the size of the complement taken by the productive causative heads in the two language groups. The analysis achieves some outcomes – it makes plain the distinct status of the lexical and productive causatives, and accounts for the variation in the applicative and causative constructions between Hiaki/Korean and Chichewa. Section 7 discusses some implications of the current analysis. Remaining questions and conclusion are presented in section 8.

1. The Puzzle of APPL-CAUS and CAUS-APPL

It has been assumed that in Hiaki the benefactive applicative suffix *-ria* and the causative suffix *-tua* can be ordered freely with respect to each other (Dedrick & Casad 1999, Harley 2013a). Thus, the benefactive *-ria* can either precede or follow the causative *-tua*. Careful examination of the structure of the relevant sentences, however, reveals that the ordering between *-tua* and *-ria* is not entirely free, but rather their interaction patterns similarly with that of the applicative and causative suffixes in other languages such as

Korean.

In Hiaki and Korean, the productive causative suffix can be stacked onto the applicative suffix, which introduces an embedded Beneficiary.[1] As a result, the causative takes scope over the applicative.[2]

(1) Nee ili usi-ta mala-ta uka vepa'aria-ta tu'ute-**ria-tua**-k.
I little child-Acc mother-Acc the roof-Acc clean$_{vt}$-**APPL-CAUS**-Perf
'I made [the child clean the roof for mother].' [*Hiaki*]

(2) Emma-ka Mary-eykey tongsayng-eykey ppang-ul
mother-Nom Mary-Dat brother-Dat bread-Acc

kwuw-**ecwu-keyha**-ess-ta.
bake-**APPL-CAUS**-Past-Comp
'Mother made [Mary bake bread for brother].' [*Korean*]

However, the applicative cannot follow the causative as in (3)-(4) with the same number of arguments.

(3) *Nee mala-ta ili usi-ta uka vepa'aria-ta tu'ute-**tua-ria**-k.
I mother-Acc little child-Acc the roof-Acc clean$_{vt}$-**CAUS-APPL**-Perf
Intended: 'I, for mother, made [the child clean the roof].' [*Hiaki*]

(4) *Emma-ka tongsayng-eykey Mary-eykey ppang-ul
mother-Nom brother-Dat Mary-Dat bread-Acc

[1] In chapter 3, the dative argument in Korean is argued to be a high Possessor argument, as opposed to Hiaki/Chichewa high Beneficiary argument. Specifically, the argument introduced by *-ecwu* must be a recipient of the root-modified Theme. In this sense, the applied argument in Korean can be thought of as a particular subtype of Beneficiary. In this chapter, I use the term Beneficiary as a cover term to refer to the non-core argument added by the relevant applicative head without making a fine-grained distinction between a true Beneficiary and Possessor arguments.

[2] Notice that the two languages mark the applied argument differently – a Hiaki Beneficiary is accusative marked, while the Korean one is dative marked. This is due to the difference in the structural-Case licensing ability of the applicative heads in the two languages, whose details are discussed in section 5.2.

kwup-**keyha-ecwu**-ess-ta.
bake-**CAUS-APPL**-Past-Comp
Intended: 'Mother, for brother, made [Mary bake bread].' [*Korean*]

Note that the ungrammaticality of the CAUS-APPL sequence in (3)-(4) is not simply due to a restriction on linear ordering. The CAUS-APPL order is sometimes permitted as in the Hiaki case in (5) below:

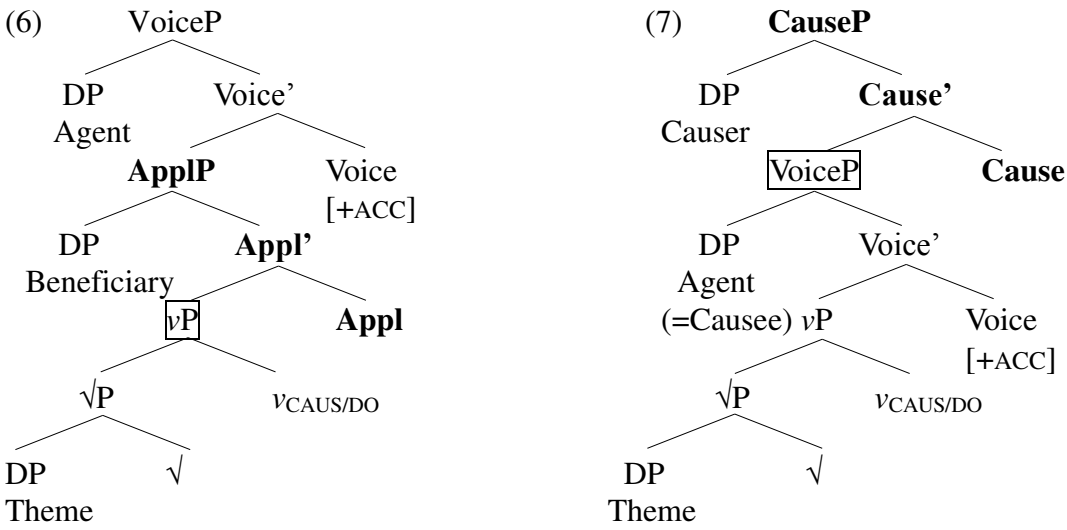
(5) Im maala usi-ta bwa'am-ta on-**tua-ria**-k.
my mother child-Acc food-Acc salt-**CAUS-APPL**-Perf
'My mother is salting the food for the child.' [*Hiaki*]

Two questions that arise are: (i) Why is the APPL-CAUS order allowed in Hiaki and Korean, while CAUS-APPL is restricted? (ii) How can a child learn that certain uses of the CAUS-APPL order are possible?

2. The Structure of CAUS and APPL in Hiaki and Korean

2.1. Proposal

I argue that the CAUS-APPL order is unacceptable in (3)-(4) because the productive causative phrase requires a functional layer that an applicative cannot embed as its complement – VoiceP. Specifically, in (6), an ApplP selects for a $v\text{P}_{\text{CAUS/DO}}$, headed by a verbalizer which introduces causative/agentive semantics, *without* the structural-Case-licensing VoiceP layer (Kratzer 1994; 1996). The Appl head in these languages, then, is equivalent to Pylkkänen's (2002; 2008) high applicative type. In contrast, a causative structure in (7) contains a VoiceP, which introduces a Causee and licenses Case on the Theme.



<To be elaborated>

If so, the size of the complement of the CauseP is larger than that of the ApplP. A productive causative, with a VoiceP below it, cannot be embedded under an applicative, while the reverse is expected to be possible. Thus, APPL-CAUS is allowed in (1)-(2), but CAUS-APPL is not in (3)-(4).

2.2. Evidence

Two pieces of evidence supporting the structures proposed in (6)-(7) are taken from the behavior of subject-oriented anaphors in Hiaki and Korean and the co-occurrence constraints on the applicative suffix with unaccusative roots and passive morphology.

2.2.1. Subject-oriented anaphor

The difference in size between CauseP and ApplP can be shown by the binding relations that are possible in each structure for a subject-oriented anaphor (Baker 1988: 210-212, Baker et al. 2012). In the Korean applicative (8), the subject can antecede the anaphor,

but the Beneficiary cannot. In contrast, in a causative (9), either the Causer or the Causee can antecede the anaphor.

[*Korean*]

(8) Yenghi$_i$-ka Chelswu$_k$-eykey casin$_{i/*k}$-uy sosel-ul ilk-**ecwu**-ess-ta.
Yenghi$_i$-Nom Chelswu$_k$-Dat self$_{i/*k}$-Gen novel-Acc read-**APPL**-Past-Comp
'Yenghi read her novel for Chelswu.'

(9) Yenghi$_i$-ka Chelswu$_k$-eykey casin$_{i/k}$-uy yangmal-ul ppal-**keyha**-ess-ta.
Yenghi$_i$-Nom Chelswu$_k$-Dat self$_{i/k}$-Gen socks-Acc wash-**CAUS**-Past-C
'Yenghi had Chelswu wash her socks.' OR 'Yenghi had Chelswu wash his socks.'

The contrast between (8)-(9) reveals that the Causee, but not the Beneficiary, is an external argument introduced by Voice, thus can function as the subject of its own clause.

The same pattern is observed with Hiaki *-ria* and *-tua*. In an applicative construction like (10), the anaphor *au* 'self' can only refer back to the Agent subject of the sentence, but not the Beneficiary. In contrast, in a causative like (11), *au* can be bound either by the Causer subject *ili uusi* 'the little child' or the Causee *Maria*.

[*Hiaki*]

(10) Ili uusi$_i$ Maria$_k$-ta piisam-po au$_{i/*k}$ roakta-**ria**-k
little child$_i$ Maria$_k$-Acc blanket-in self$_{i/*k}$ roll$_{vt}$-**APPL**-Perf
'The little child rolled himself in the blanket for Maria.'
'The little child rolled Maria in the blanket for himself.'

(11) Ili uusi$_i$ Maria$_k$-ta piisam-po au$_{i/k}$ roakta-**tua**-k.
little child$_i$ Maria$_k$-Acc blanket-in self$_{i/k}$ roll$_{vt}$-**CAUS**-Perf
'The little child made himself roll Maria in the blanket.'
'The little child made Maria roll herself in the blanket.'

Notice in (10) that *au* can either behave as a Theme or as a Beneficiary argument, unlike

in the Korean example in (8), where *casin* must be part of the Theme. This is due to two reasons. First, *casin* takes the NP complement *sosel* 'novel' in (8), unlike the Hiaki example in (10), so the fact that the anaphor is contained in the Theme is unambiguous in the Korean syntactic string. On the other hand, in Hiaki the Beneficiary is marked as accusative as well as the Theme. This gives rise to an ambiguous interpretation for (10), since the accusative anaphor might originate in either syntactic position.[3] Second, in (9) *casin*, as part of the Theme, can either refer to the Causer or the Causee, whereas in (11) *au* cannot refer back to the Causer by being understood as the Theme. That is, (11) does not have the reading that 'The little child$_i$ made Maria roll him$_i$'.[4] This difference is attributed to the long distance binding property of Korean reflexive *casin* (O'Grady 1987, Yoon 1989, Cho 1994, Gill 1999, Kim 2000, Kang 2001, Sohng 2004, Kim et al. 2009, Han & Storoshenko 2012). These two differences observed between Hiaki and Korean examples in (8)-(11) do not affect the point of the argument – namely, that both *casin* and *au* are subject-oriented anaphors and that while they can be co-indexed with the embedded Causee argument, they cannot corefer to the Beneficiary argument introduced by the applicative head.

2.2.2. Evidence from selection

This proposal makes predictions about the possible morpheme combinations. First, the applicative suffix is expected not to appear with unaccusatives as in (12)-(13).

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[3] Hiaki accusative anaphors and object pronouns occupy a clitic position immediately before the inflected verb, no matter whether the argument they represent is base generated in Theme or Beneficiary position; because *au* is a clitic, it is impossible to tell from the word order whether *au* in (10) originated as Theme or Beneficiary, giving rise to the ambiguity.

[4] To express this latter co-indexation relationship, Hiaki, like English, would be required to use a pronominal in Theme position, rather than an anaphor.

(12) *Jesus yoemmia **muuk**-**ria**-k. [*Hiaki*]
Jesus people:pl **die**-**APPL**-Perf
Intended: 'Jesus died for people.' (adapted from Guerrero 2004: 134)[5]

(13) *Sinha-ka wang-eykey **cwuk-ecwu**-ess-ta. [*Korean*]
courtier-Nom king-Dat **die**-**APPL**-Past-Comp
'The courtier died for the king.'

This is because ApplP in both Hiaki and Korean takes a $v\text{P}_{\text{CAUS/DO}}$ complement and unaccusative roots are not embedded by $v_{\text{CAUS/DO}}$, unless they are transitivized by an overt causative suffix.[6]

An ApplP is also expected to disallow the passive head under it, because it cannot embed a Voice head. In other words, the passive suffix may not precede the applicative suffix. This prediction is also borne out in both languages, as in (14)-(15).

(14) *Saala mala-ta tu'ute-**wa-ria**-k. [*Hiaki*]
room mother-Acc $\text{clean}_{\text{trans}}$-**PASS-APPL**-perf
Intended: 'The room was cleaned for mother.'

(15) *Ppang-i tongsayng-eykey kwuw-**eci-ecwu**-ess-ta. [*Korean*]
bread brother-Dat bake- **PASS-APPL-**Past-Comp
'Bread was baked for brother.'

We see then that both predictions are borne out.

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[5] Note that (12) is acceptable with the reading 'Jesus's people died' in the Sonoran dialect of Hiaki (Guerrero 2004: 134). This is not possible in the Arizona dialect of Hiaki. Crucially, neither dialect allows (12) with the intended benefactive interpretation.

[6] … except for the roots in Korean that undergo labile alternations (Haspelmath 1993) between inchoative and causative forms (e.g., *huli-* 'be.muddy' vs. *huli-* 'defile'). This kind of root cannot be used in a structure like (13) anyway because the transitive version requires an additional accusative marked Theme argument.

3. Consequence: Lexical vs. Productive Causatives

If the proposal in (6)-(7) is on the right track, the grammaticality of (5), repeated below in (16), leads us to conclude that the causative suffix *-tua* in (5)/(16) is not a productive causative but the *v* head in (6), which is the only terminal node that is located between the verbal root and the Appl head. Notice that the subject of (16) is located in the Spec-Voice according to the structure in (6). In the structure of the grammatical (16), then, VoiceP appears *higher* than ApplP.

(16) Im maala usi-ta bwa'am-ta on-**tua-ria**-k. [*Hiaki*]
my mother child-Acc food-Acc salt-**CAUS-APPL**-Perf
'My mother is salting the food for the child.'

Let us now compare the grammatical (16) with the ungrammatical (3), which is repeated in (17). In (17), the Causee argument, introduced by Voice according to (7), follows the Beneficiary – that is, it involves a structure where VoiceP appears *lower* than ApplP. Crucially then, the resulting structure of (16) is acceptable because it lacks an intermediate Causee, as opposed to (17).

(17) *Nee mala-ta ili usi-ta uka vepa'aria-ta tu'ute-**tua-ria**-k. [*Hiaki*]
I mother-Acc little child-Acc the roof-Acc clean$_{vt}$-**CAUS-APPL**-Perf
Intended: 'I, for mother, made [the child clean the roof].'

In fact, the same pattern as (16) is observed in Korean. The only difference is that in (18) the inner causative has an idiosyncratic spell-out. That is, it is an allomorphic lexical causative:

(18) Mary-ka tongsayng-eykey lamyen-ul kkul-**i-ecwu**-ess-ta. [*Korean*]
Mary-Nom brother-Dat noodles-Acc boil_{vi}-**LEX.CAUS-APPL**-Past-C
'Mary cooked noodles for brother.'

Korean has seven spell-outs for the lexical causative *-i/-hi/-li/-ki/-wu/-kwu/-chwu*, whose realization is determined by the root that it follows (Park 1994, Yeon 2000, Son 2006, a.o.). A separate set of lexical causatives with idiosyncratic spell-outs are observed in other languages such as Japanese (Miyagawa 1980; 1984, Jacobson 1981; 1992, Harley 2008b) and Turkish (Özkaragöz 1986, Key 2013). Below intransitive (unaccusative) Korean roots and their causative counterparts are illustrated, the latter derived by attaching the corresponding lexical causative suffix:[7] [8]

(19)

Lexical causative *v*	Unaccusative/Intransitive	Causative/Transitive
-i	*kkul* 'boil'	*kkul-i* 'boil'
	cwuk 'die'	*cwuk-i* 'kill'
-hi	*ik* 'ripen'	*ik-hi* 'ripen'
	anc 'sit'	*anc-hi* 'seat'
-li	*tol* 'spin'	*tol-li* 'spin'
	nal 'fly'	*nal-li* 'fly'
	wul 'cry'	*wul-li* 'cry'
-ki	*swum* 'hide'	*swum-ki* 'hide'
	wus 'laugh'	*wus-ki* 'make laugh'
-wu	*tot* 'grow'	*tot-wu* 'grow'
	ca 'sleep'	*ca-ewu* 'put to sleep'[9]
-kwu	*sos* 'rise'	*sos-kwu* 'raise'
	tal 'heat (e.g., metal)'	*tal-kwu* 'heat (e.g., metal)'
-chwu	*nac* 'be low'	*nac-chwu* 'lower'
	nuc 'be late'	*nuc-chwu* 'delay'

[7] Transitive roots can be followed by lexical causatives too (Um 1995, Kim 1998, Son 2006, Kim 2011a;b, a.o.). The details regarding transitive roots are discussed in section 4.2.1 and chapter 4. Table (18) can be further divided into two groups depending on whether the root denotes a change-of-state or a simple state.
[8] I consider *nal* 'fly', *swum* 'hide', *wus* 'laugh', *ca* 'sleep' as unaccusatives when they are lexically causativized. Tubino Blanco (2010) makes a similar conclusion for the Haiki verb *ne'e* 'fly'. The justification for this classification is discussed in section 4.1.2.
[9] The linking vowel *-e* is inserted after roots ending with a vowel. The same is observed with *-ecwu* 'appl' and the verbalizing suffix *-eha* 'do'.

The allomorphy triggered by the co-occurring root is evidence that lexical causative is adjacent to the root, which the productive causative is not (Harley 2008b, Miyagawa 2010; 2011). It is, therefore, reasonable to consider that the lexical causative occupies *v* in the structure in (6), unlike the productive causative in (7). Accordingly, the CAUS that precedes the APPL is a lexical causative, with the result that it lacks the intermediate Causee argument.

Unlike Korean, Hiaki does not have an extensive set of lexical causatives whose realization is determined by the verbal root. Therefore, *-tua* is used in (16) to fill the gap in the sense of Miyagawa (2010; 2011). This treatment of **-***tua* as a lexical causative is supported by the fact that there are idioms in Hiaki which require *-tua* in order for the idiomatic meaning to be completed (e.g., *savu-tua* 'soap-CAUS'= 'to scold', *puh-tua* 'eye-CAUS'= 'to give the evil eye'). These idioms lose the idiosyncratic meaning once the causative suffix *-tua* is detached. In contrast, Korean idioms containing a causative suffix involve one of the lexical causative suffixes presented in (19), but not the productive causative (See the discussion in section 2.1 of chapter 4). This suggests that Hiaki *-tua* can appear adjacent to the verbal root, behaving like a lexical causative, unlike the Korean productive causative **-***keyha*.

Additionally, a structure where two instances of *-tua* are used is possible:

(20) a. Nee Maria-ta bwa'am-ta on-**tua-tua**-k. [*Hiaki*]
I Maria-Acc food-Acc salt-**CAUS-CAUS**-Perf
'I made Maria salt the food.'

b. Nee Maria-ta usi-ta bwa'am-ta on-**tua-ria-tua**-k.
I Maria-Acc child-Acc food-Acc salt-**CAUS-APPL-CAUS**-Perf
'I made Maria salt the food for the child.'

The acceptability of (20) demonstrates that the inner *-tua* is lexical, while the outer one is a productive use of *-tua*.[10] That is, the first *-tua* in (20) is a realization of *v* in (6), whereas the second *-tua* occupies the position corresponding to Cause in (7). This conclusion is justified because of the general cross-linguistic fact that two productive causative suffixes in a row are ungrammatical (Svenonious 2005, Key 2013).

To recap, the ordering in Hiaki and Korean are regulated by the syntactic requirements of the functional heads involved. Only a lexical causative suffix, occupying the root-adjacent *v* position, can precede the applicative suffix in both Hiaki and Korean. By contrast, the productive causative suffix that takes a VoiceP complement must follow the applicative suffix.

4. Applicative of Lexical Causative in Hiaki and Korean

According to the proposal made in (6)-(7), the sequence CAUS-APPL (i.e., the structure in (6)) is expected to be limited to unaccusative roots. This is because, if lexical causatives of unergatives existed, it would imply that the $v_{CAUS/DO}$ headed by the lexical causative could embed a VoiceP under it, since unergatives require a VoiceP to introduce their sole external argument. However, by hypothesis, lexical causatives are adjacent to the root

[10] Interestingly, my two Hiaki consultants had different responses on the verb form in (20). Specifically, one accepts *on-tua-ria-tua-k*, with two instances of *-tua*, while the other prefers *on-tua-ria-k* for (20). This variation does not affect the claim that the *-tua* preceding *-ria* is lexical, because the second consultant does accept the syntactic structure of (20). I hypothesize that for him, the second instance of *-tua* is simply not spelled out. Tubino Blanco (2010) discusses a similar case with lexical causatives attached to verbal roots (e.g., *hi'ibwa-tua* 'eat$_{vi}$-caus = feed'), which she attributes to haplology (Bloomfield 1986).

phrase (Marantz 1997, Pylkkänen 2002; 2008). Any argument of a root is expected to be an internal, not an external, argument. Therefore, if the CAUS-APPL order involves a lexical causative in Hiaki and Korean, as argued in section 3, unaccusative roots, but not unergatives, are predicted to occur with the CAUS-APPL sequence.

4.1. Unaccusatives and unergatives

4.1.1. Hiaki unaccusatives and unergatives

The prediction that the *tua-ria* sequence should be compatible with unaccusatives, but not unergatives, is borne out in Hiaki. Suppletive roots like *weye* 'go (sg. subj)', *siime* 'leave (sg. subj)' are independently shown to be unaccusative in Harley et al. (2009) and Harley (*to appear*). In Hiaki *tua-ria* is allowed with suppletive unaccusative roots:

(21) a. Mario Alle-ta uka karo-ta wee-tua-ria-k.
Mario Alex-Acc that car-Acc go-CAUS-APPL**-**Perf
Lit. 'Mario made that car go for Alex.' ('Mario drove that car for Alex.')

b. Mario usi-ta uka vakot-ta sim-tua-ria-k.
Mario child-Acc the snake-Acc leave-CAUS-APPL**-**Perf
'Mario made the snake leave for the child.'

However, unergative roots cannot appear with the *-tua-ria* sequence:

(22) a. *Jose Maria-ta uka kavai-ta chepti-tua-ria-k.
Jose Maria-Acc that horse-Acc jump-CAUS-APPL**-**Perf
'Jose made that horse jump for Maria.'

b. *Nee mala-ta Mario-ta yi'i-tua-ria-k.
I mother-Acc Mario-Acc dance-CAUS-APPL**-**Perf
'I made Mario dance for mother.'

c. *Jose yoemia-ta uka hamut-ta nok-tua-ria-k.
Jose people-Acc the woman-Acc speak-CAUS-APPL-Perf
'Jose made the woman speak for the people.'

Because not all Hiaki unaccusative roots display suppletion like in the ones in (21) do, one can use the compatibility of the *tua-ria* sequence with a certain root to test whether the root is unaccusative or unergative, even when suppletion is not available as a diagnostic. It is well known that the unaccusativity and unergativity tests apply only to particular languages, instead of being universal (Alexiadou et al. 2004). For example, Romance and Germanic languages utilize different auxiliaries, *be* and *have*, depending on whether the verb is unaccusative or unergative (Haider & Rindler-Schjerve 1987, Perlmutter 1989, Cocchi 1994, Ackema 2000, Reuland 2000). As for Hiaki, Jelinek & Escalante (2000) argue that the impersonal passive (Perlmutter 1978) distinguishes Hiaki unergatives from unaccusatives. However, Hiaki impersonal passives appear to be sensitive to the animacy of the argument associated with the root, rather than its unaccusativity/unergativity (cf. Tubino Blanco & Harley 2011, see also Chapter 5). Thus, the impersonal passive test does not seem reliable in teasing the two types of intransitive roots in Hiaki apart.

One genuine diagnostic for unaccusatives/unergatives is, in the case of the roots that alternate between intransitive and transitive, to see which grammatical function the argument of the intransitive plays when used as a transitive. Some Hiaki intransitive verbs undergo a change on the final vowel of the root from *-e* to *-a* when used as a transitive (Jelinek 1998, Jelinek & Escalante 2000, Tubino Blanco 2010).

(23) a. Maria chept**e**-k.
Maria jump-perf
'Maria jumped.'

b. Maria kora-ta chept**a**-k
Maria fence-Acc jump-perf
'Maria jumped the fence.'

(24) a. Kuta kot**e**-k.
stick break-perf
'The stick broke.'

b. Santo kuta-ta kot**a**-k
Santos stick-Acc break-perf
'Santos broke the stick.' (Harley 2007)

The final vowel of both roots in (23) and (24) undergo the *e-a* alternation. However, they differ in which grammatical role the argument of the intransitive takes in their transitive counterpart. In (23), *Maria* serves as the Agent subject in both intransitive and transitive versions, whereas in (24), *kuta* 'the stick' becomes the object when used as a transitive in (24b). Therefore, by definition, the intransitive *kote* 'break' is unaccusative, whereas *chepte* 'jump' is unergative.

Not all Hiaki verbal roots alternate between *e-a* in the final vowel position, however. Therefore, it is hard to tell whether an intransitive root is unaccusative or unergative, if the root neither exhibits suppletion (cf. (21)) nor undergoes the *e-a* alternation (cf. (23)-(24)). *Koche* 'sleep' in (25a) is such a verb. This is where the possibility of attaching the *tua-ria* sequence is useful:

(25) a. Uu uusi koche.
the child sleep
'The child is sleeping.'

b. Alle Heidi-ta uka usita kot-tua-ria.
Alle Heidi-Acc the child-Acc sleep-CAUS-APPL
'Alex is putting the baby to sleep for Heidi.'

c. *Alle uka usi-ta Heidi-ta kot-ria-tua.
Alle the child-Acc Heidi-Acc sleep-APPL-CAUS
'Alex is putting the baby to sleep for Heidi.'

The fact that *koche* 'sleep' allows *tua-ria* to follow it suggests that it is an unaccusative root in Hiaki, rather than unergative.[11] [12]

4.1.2. Korean unaccusatives and unergatives

Korean lexical causatives have different spell-outs depending on the roots they occur with. The prediction that CAUS-APPL is restricted to unaccusative roots is in principle confirmed in Korean, too. This is shown in (26), repeated from (17):

(26) Mary-ka tongsayng-eykey lamyen-ul kkul-**i**-**ecwu**-ess-ta.
Mary-Nom brother-Dat noodles-Acc $boil_{vi}$-**LEX.CAUS-APPL**-Pst-C
'Mary cooked noodles for brother.'

[11] This contrasts with English 'sleep', which can be considered unergative for its ability to take a cognate object. (Hale & Keyser 1993). Hiaki does not have a noun for 'sleep' that derives from the root *kot*.

[12] One might wonder if (25c) can be understood to contain a productive causative as the ordering *ria-tua* would predict. In that case, it would be read as 'Alex made the child sleep for Heidi.' My consultants note (25c) is pretty bad even with the productive causative interpretation of *-tua*. This is understandable given the infelicity of the expression #'sleeping for somebody else'. This is essentially the kind of incompatibility between unaccusatives with *-ria* as proposed by Harley et al. (2009) and also illustrated in (12) above. Consistent with the treatment of *kot-tua* as an instance of lexical causative is the fact that the causative construction with *kot-tua* does not allow agent-oriented participials to modify the Causee argument (see section 1 in Chapter 4).

By the same logic employed in (24), the role of the single argument of (27a) in this transitive alternant in (27b) suggests that the root *kkul* is unaccusative:

(27) a. Mwul-i kkul-ess-ta.
water-Nom $boil_{vi}$-Past-Comp
'The water boiled.'

b. Yenghi-ka mwul-ul kkul-i-ess-ta.
Yenghi-Nom water-Acc $boil_{vi}$-CAUS-Past-Comp
'Yenghi boiled the water.'

There are, however, some potential counterexamples. The list of the roots associated with lexical causative suffixes in (18) includes roots like *nal* 'fly', *wul* 'cry' and *wus* 'laugh', which are typically assumed to be unergatives (Park 1993, Son 2006, Oh 2010).

(28) Yenghi-ka yen-ul **nal-li**-ess-ta
Yenghi-Nom kite-Acc **fly_{vi}-LEX.CAUS**-Past-Comp
'Yenghi flew a kite.'

(29) Yenghi-ka Chelswu-lul **wul-li**-ess-ta
Yenghi-Nom Chelswu-Acc **cry-LEX.CAUS**-Past-Comp
'Yenghi made Chleswu cry.'

(30) Yenghi-ka Chelswu-ul **wus-ki**-ess-ta
Yenghi-Nom Chelswu-Acc **laugh-LEX.CAUS**-Past-Comp
'Yenghi made Chleswu laugh.'

The roots 'fly', 'cry', and 'laugh' are treated as unergatives in many languages such as English, primarily because they can take a cognate object (Hale & Keyser 1993):

(31) a. The pilot flew a night flight.
b. The lady cried a shrill cry.
c. The man laughed a big laugh.

However, *nal* 'fly' and *wul* 'cry' in (28)-(29) pattern with unaccusatives rather than unergatives, when interacting with the applicative suffix. As discussed in section 2, unaccusative verbs like (32) are not compatible with the applicative suffix, but unergatives are, as in (33). The ungrammaticality of (34)-(35) shows that *nal-* and *wul-* are incompatible with the applicative suffix *-ecwu*.

(32) *Sinha-ka wang-eykey **cwuk-**ecwu-ess-ta.
courtier-Nom king-Dat **die**-APPL-Past-Comp
'The courtier died for the king.'

(33) Ku namca-ka yeca chinku-eykey **nolay.ha-**ecwu-ess-ta.
the man-Nom girl friend-Dat **sing.do**-APPL-Past-Comp
'The man sang for (his) girlfriend.'

(34) *Yen-i/cakun say-ka Chelswu-eykey **nal-**acwu-ess-ta.
kite-Nom/little bird-Nom Chelswu-Dat **fly$_{vi}$**-APPL-Past-Comp
'A kite/little bird flew for Chelswu.'[13]

(35) *Yepaywu-ka kamtok-eykey **wul**-ecwu-ess-ta.
actress-Nom director-Dat **cry**-APPL-Past-Comp
'The actress cried for the director.'

The ill-formedness in (34)-(35) suggests that *nal-* and *wul-* may be unaccusatives in

[13] The ungrammaticality of (34) demonstrates that the ill-formedness in (34)-(35) is due to the incompatability of unaccusatives with the benefactive applicative in Korean, rather than the animacy of the subject.

Korean.[14] Furthermore, the ill-formedness of (34)-(35) as well as (32) is consistent with the present proposal about Korean Appl's property that it particularly selects for a causative/agentive *v*Ps.

On the other hand, *wus* 'laugh' presents a different case as it can co-occur with the benefactive applicative as in (36). Note, however, that in that context it is interpreted as 'smile', not 'laugh'. As a matter of fact, the dative argument in (36) is not introduced by *-ecwu*. This can be seen from the acceptability of (37), which lacks *-ecwu*. (36)-(37) mean almost the same except the additional benefactive interpretation brought in by *-ecwu* in (36).

(36) Chelswu-ka Yenghi-eykey pankus wus-**ecwu**-ess-ta
Chelswu-Nom Yenghi-Dat beamingly smile-**APPL?**-Past-Comp
'Chelswu smiled at Yenghi.' (*laughed at) (adapted from Oh 2010: 416)

(37) Chelswu-ka Yenghi-eykey pankus wus-ess-ta
Cheslwu-Nom Yenghi-Dat beamingly smile-Past-Comp
'Chelswu smiled at Yenghi.' (*laughed at)

If the dative argument in (36)-(37) is associated with the root *wus* 'laugh', presumably as a location/direction, instead of being introduced by *-ecwu*, then the grammaticality of (36) is not surprising. This raises another question – one about the status and function of *-ecwu* in (36), which I attempt to answer later in chapter 3. For now, I will just note that it is not necessarily because *wus* 'laugh' is unergative that (36) is grammatical.

Other unaccusative vs. unergative diagnostics in Korean reported in the literature (Yang 1991, Park 1993) seem to provide mixed results about *nal* 'fly', *wus* 'laugh' and

[14] The same argument can be made about the root *ca* 'sleep' in (18).

wul 'cry', which adds to the confusion. Besides, the English verb 'fly' exemplifies the cross-linguistically peculiar behaviors of these roots. The ability to take a cognate object in (38) points to an unergative status for 'fly' when used intransitively, whereas the fact that it undergoes a causative alternation in (39) suggests that it is unaccusative in (39a).[15]

(38) The pilot flew an overnight flight.

(39) a. The kite flew.
b. The pilot flew a kite.

Two possibilities can be considered. First, it may be that some roots can be used either as an unergative or as an unaccusative and that Korean *nal* 'fly', *wus* 'laugh' and *wul* 'cry' are such roots. This often appears to be the case with intransitive roots that are capable of occurring with an animate argument, since animacy is one of the requirements for agenthood.[16] Then, we may posit that when these roots occur with a lexical causative suffix, their unaccusative version is involved. That is, when these roots are embedded under a lexical causative, their argument is generated as a complement to the root. If so, the proposal made about CAUS-APPL in (6) can be retained.

The other possibility is suggested by Pylkkänen (2002; 2008). Based on Kratzer (1996)/Marantz (1997) and contra Hale & Keyser (1993; 1998), Pylkkänen (2002; 2008) proposes that the grammar does allow lexical causatives of unergative roots, with the intermediate Causee introduced by the CAUSE head (i.e., the equivalent of $v_{CAUS/DO}$ in

[15] Karimi (p.c.) notes that the differences between (39a)-(39b) are marked by distinct light verbs in languages like Persian (See Karimi 1997).
[16] *Cwuk* 'die' is an exception here.

(6)-(7)) in a non-Voice-bundling language (e.g., Japanese). We will see, however, that this position faces difficulties in explaining lexical causatives of transitive roots in section 4.2.1.

4.2. Transitive roots

4.2.1. Korean transitive roots and CAUS-APPL

An interesting fact about Korean lexical causatives is that they can embed a limited set of agentive transitive roots (Um 1995, Kim 1998, Son 2006, a.o.). In this subsection, I show that transitive roots embedded under a lexical causative do not take a traditional Agent argument, which is introduced by a VoiceP (Kratzer 1994; 1996). Therefore, it will be concluded that the prediction that the present proposal makes about CAUS-APPL holds – that with the CAUS-APPL ordering, the CAUS morpheme is a lexical causative that is located adjacent to the RootP.

Let us consider the issue of agentive transitive roots.[17] In (40), the agentive transitive root *ilk-* 'read' is immediately followed by a lexical causative suffix. The dative Causee serves the action denoted by the root. Structurally then, the root *ilk-* is embedded under the head that the lexical causative suffix occupies.

(40) Yenghi-ka John-eykey chak-ul **ilk**-hi-ess-ta
Yenghi-Nom John-Dat book-Acc **read**-LEX.CAUS-Past-Comp
'Yenghi made John read a book.'

[17] Transitive roots that are stative can also be lexically causativized (e.g., *ip-hi* 'wear-LEX.CAUS = dress'). I assume the dative argument associated with this kind of roots as a Location (Son 2006) or a Possessor (Harley p.c.) positioned root-internally. See section 4.1 of chapter 3 and section 2 of chapter 4 for further discussion.

If the Agent-Causee argument in (40) is introduced by Voice, it would mean that the lexical causative head *-hi* is able take a VoiceP complement. If so, the claim that ApplP selects for a *v*P without an external-argument-introducing Voice as in (6) would need to be reconsidered. As a consequence, the present proposal that attributes the ungrammaticality of (4) to the amount of structure that Appl can embed would no longer be tenable.

However, there is evidence that the dative Causee argument in (40) is not introduced by Voice, but by another kind of high Appl. In particular, the subject-oriented anaphor *casin* 'self' cannot be co-indexed with the dative argument *John* in (41) (Shibatani 1972; 1973a; 1973b; Um 1995, Kim 2011 a; b).[18]

(41) Yenghi$_i$-ka John$_j$-eykey casin$_{i/*j}$-uy chak-ul
Yenghi$_i$-Nom John$_j$-Dat self$_{i/*j}$-Gen book-Acc

ilk-**hi**-ess-ta
read-**LEX.CAUS**-Past-Comp
'Yenghi$_i$ made John$_j$ read self's$_{i/*j}$ book.'

This is in contrast to how *casin* 'self' behaves in a construction with the productive

[18] The construction in (40)-(41) is in fact ambiguous between the experiencer and causative readings (cf. English *have* (Ritter & Rosen 1997), Japanese adversity causative (Pylkkänen 2008)). Unlike (40)-(41), (i) easily triggers the ambiguous interpretation due to the nature of the Theme argument used – that is, one's diary is something secretive compared to a book, therefore the experiencer reading as well as the causative reading are activated.

(i) Mary$_i$-ka John$_j$-eykey casin$_i$-uy ilki-lul ilk-hi-ess-ta.
Mary$_i$-Nom John$_j$-Dat self$_i$-Gen diary-Acc read-HI-Past-Comp
'Mary made John read her diary.' (Causative)
'Mary had John read her diary (being adversely affected by it).' (Experiencer)

In this dissertation, I do not address the experiencer construction formed with the homophonous suffixes *-i/-hi/-li-ki*. See Shim (2008) and Kim (2011a; b) for accounts of the alternation between causative and experiencer interpretations formed with *-i/-hi/-li-ki*.

causative *-keyha*, which was discussed in section 2 and is also well-known in the literature on productive vs. lexical causatives, Shibatani (1972; 1973a; 1973b). It was shown in section 2 that Korean productive causative *-keyha* selects for a VoiceP complement, which is why the Causee *John* can be co-indexed with *casin* 'self' in (42).[19]

(42) Yenghi$_i$-ka John$_j$-eykey casin$_{i/j}$-uy chak-lul
Yenghi$_i$-Nom John$_j$-Dat self$_{i/j}$-Gen book-Acc

ilk-**keyha**-ess-ta.
read-**SYN.CAUS**-Past-Comp
'Yenghi$_i$ made John$_j$ read self's$_{i/j}$ book.'

The contrast between (41) and (42) reveals that *John* in (41) is not a full-fledged Agent argument introduced by VoiceP.

Kim (2011a; b) employs semantic evidence – compatibility with agent-oriented adverbs – to demonstrate that the dative argument in (40)-(41) is an applied argument:

(43) Yenghi$_i$-ka John$_j$-eykey chak-ul **ilpwule**$_{i/*j}$
Yenghi-Nom John-Dat book-Acc **on purpose**

ilk-hi-ess-ta
read-LEX.CAUS-Past-Comp
'Yenghi, on purpose, made John read a book.'

On the grounds that an agent-oriented adverb *ilpwule* 'on purpose' can only modify the subject *Yenghi* but not the dative argument *John* in (43), Kim (2011a; b) concludes that the dative argument cannot be agentive, as a result, is not an external argument linked to

[19] The productive causative construction formed with *-keyha* does not induce an experiencer interpretation, unlike (41).

Voice.[20]

In addition to the agent-oriented adverbs, the same patterns are observed with agent-oriented participials in (44)-(45). With the lexical causative in (44), only the matrix Causer can be modified by the agent-oriented participial. This is in line with Shibatani's (1972) original observation about the nature of lexical causatives that the Causer directly acts upon the Causee. As Shibatani & Chung (2001) note, the interpretation of (40) is that the Causer is sitting next to the Causee, supervising the Causee's reading action. In contrast, with the productive causative in (45), either the Causer or Causee argument can be associated with the participial.

(44) Yenghi$_i$-ka ai$_j$-eykey kyokwase-lul mitcwul-ul chye.ka-mye$_{i/*j}$
Yenghi-Nom child-Dat textbook-Acc underline-Acc draw.go-ppl

ilk-hi-ess-ta
read-LEX.CAUS-Past-Comp
'Yenghi, underlining (the important parts), made the child read the textbook.'

(45) Yenghi$_i$-ka ai$_j$-eykey kyokwase-lul mitcwul-ul chye.ka-mye$_{i/j}$
Yenghi-Nom child-Dat textbook-Acc underline-Acc draw.go-ppl

ilk-keyha-ess-ta
read-SYN.CAUS-Past-Comp
'Yenghi made the child read the textbook underlining (the important parts).'
OR 'Yenghi, underlining (the important parts), made the child read the textbook.'

The contrast in (44)-(45) illustrates the same point. The dative Causee in the productive causative behaves like a full-fledged Voice argument just like the matrix Causer, whereas

[20] However, see section 1 of Chapter 4 for an argument that the possibility of being modified by agent-oriented adverbs alone is not a reliable test for Voice. There, I show that the presence of Voice can only be diagnosed when agent-oriented participials and binding patterns are considered simultaneously.

the dative Causee in the lexical causative does not. The natural question is what is the syntactic status of the dative Causee in lexical causatives of agentive transitives in (40)-(41) and (43)-(44), if it is not an argument of Voice? Consideration of (41)-(45) suggests that such a projection should be an eventive head that is not as high as Voice.

Kim (2011a; b) argues that the dative argument in (43) is an Instrument, introduced by a high $\text{Appl}_{\text{INSTR}}$ head. I follow Kim (2011 a; b) in concluding that *John* in (40)-(41) and (43)-(44) is introduced by a high Appl. However, I depart from Kim (2011 a; b) in not thinking that the particular Appl represents an instrumental applicative. I present the reason here. What Kim (2011 a; b) considers an "Instrument" in (40) is distinct from genuine Instrumental arguments in its relation to the root and the higher external argument. Instrumental arguments introduced by $\text{Appl}_{\text{INSTR}}$ are pervasive in Bantu languages. The adjunct *ndi mkondo* 'with spear' in (46a) becomes an Instrumental argument in (46b), by being introduced by the applicative suffix *-il*:

(46) a. Kalulu a-ku-phik-a maungu **ndi** mkondo.
1a-hare 1SM-pres-cook-fv 6-pumpkins **with**3-spear
'The hare is cooking pumpkins with (using) a spear.'

b. Kalulu a-ku-phik-**il**-a mkondo maungu.
1a-hare 1SM-pres-cook-**APPL**-fv 3-spear 6-pumpkin
'The hare is cooking pumpkins with a spear.' [*Chichewâ*]
(Mchombo 2004: 87)

-Il is homophonous with other applicatives that introduce non-subject arguments such as a Beneficiary, Reason, or Location. In (46b), the Instrument *mkondo* 'spear' is used by the Agent subject *kalulu* 'hare', who performs the action of cooking. In contrast, the

sentential subject *Yenghi* in (40) is not the reader herself, who uses *John* to carry out the action of the verb. The applied DP in (40) is qualitatively different from the Instrument DP in (46b). Since the applied DP involved in lexical causatives of agentive transitives in Korean is always an Agent argument that is animate, I propose that the head which introduces it is the eventive Appl_{BY}. The term *by* here is not to be compared to the *by*-Agent in passives. Rather, it is intended to mark a subcategory of high Appl that introduces an Agent argument that is not as fully agentive and volitional as the Agent argument of Voice.[21] Notice also that unlike the high benefactive applicative head realized by *-ecwu*, high Appl_{BY} does not have an overt spell-out for its terminal node.

Having shown that the dative Causee argument in (40) is introduced by a type of high Appl, we can postulate a structure like (47) for the lexical causative of an agentive transitive. In (47), the ApplP introduces the Agent argument that performs the action denoted by the verbal root in the presence of a higher Causer argument introduced by a Voice head. If so, the proposed benefactive applicative structure in (6) can be retained, since it would mean that the Appl_{BEN} introducing the Beneficiary in (6) and the Appl in (40) introducing the dative argument are different flavors of the same head in Korean. That is, the two involve distinct structures.

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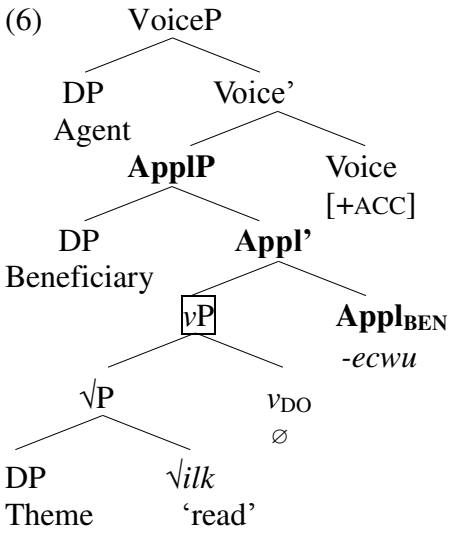
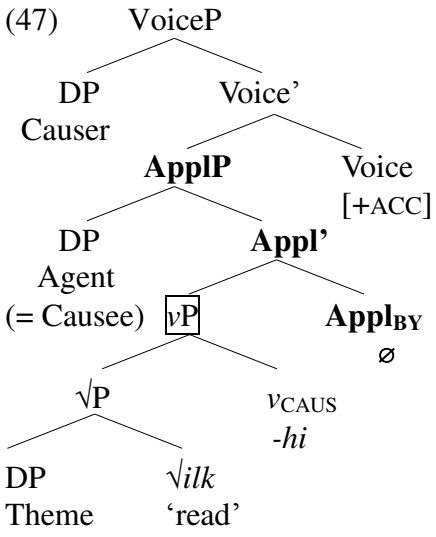
[21] Some properties of lexical causatives of agentive transitives make them similar to verb-selecting causatives (see section 1 of Chapter 4 and Chapter 5). First, the overall structure of both involves a single VoiceP. Second, the Agent-Causee is animate. However, there are reasons to distinguish between the two. First, lexical causatives of agentive transitives are more idiosyncratic in that only a designated set of agentive roots can form this type of causative construction (see section 2 of Chapter 4). Additionally, unlike the purely semantic (adjunct like) status of the Causee of verb-selecting causatives, the Causee argument in lexical causatives of agentive transitives has status as an argument. Thus, even though Korean is a *pro*-drop language, omitting the Causee with no contextual support is not possible in (40). In contrast, the Causee of verb-selecting causatives can be dropped freely (Key 2013).

(6)



(47)



This hypothesis makes a prediction – the two high Appls in (6) and (47) are not expected to co-occur, since they are in complementary distribution in syntax. In other words, a lexically causativized agentive transitive root is expected to be incompatible with a transitive benefactive applicative. This is precisely what we see in (48):

(48) *Yenghi-ka Chelswu-eykey ai-eykey chak-ul
Yenghi-Nom Chelswu-Dat child-Dat book-Acc

ilk-**hi-ecwu**-ess-ta.
read-**LEX.CAUS-APPL**-Past-Comp
Intended: 'Yenghi made the child read a book for Chelswu.'

Under the present assumption, (48) involves an illicit structure, where two arguments are associated with the applicative head.[22] Notice here the sequence *hi-ecwu* is morphologically legitimate (e.g., *palk-hi-ecwu* 'be bright-LEX.CAUS-APPL'). It is the syntax that disallows (48) because the two flavors of Appl in (6) and (47) compete for the

[22] The ungrammaticality in (46) is not because it contains two consecutive dative arguments, since they are legitimate when the two are linked to distinct functional layers, as seen earlier in (2) and in the data mentioned in Ahn & Lee (1995).

same position (at least in Korean).[23]

Meanwhile, the ungrammaticality of (48) serves as an argument against Pylkkänen's (2002; 2008) proposal that there exist lexical causatives of unergative roots in a non-Voice-bundling language, as mentioned in section 4.1.2. Her analysis is based on Japanese unergative roots embedded under lexical causatives. However, her claim about lexical causatives of unergatives in Japanese should carry over to Korean lexical causatives of agentive transitives as well. This is because of two reasons. First, the external argument of unergatives and that of agentive transitives are located in the same position. Second, as with Japanese, Korean is also non-Voice-bundling in the first phase (Ramchand 2008).[24] Pylkkänen (2002; 2008) proposes that in lexical causatives of unergatives/agentive transitives, the Causee argument, which performs the action of the root, must be introduced in the position equivalent to Spec-*v*P in (47), instead of Spec-ApplP. Under her proposal, however, there is no reason why (48) should be ungrammatical, since *Chelswu* and *ai* 'child' would occupy different positions – Spec-Appl and Spec-*v*P positions, respectively. If the current proposal is on the right track, it

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[23] A question worth considering is whether there is any language where multiple Appls are ever possible. If inherently ditransitive roots such as *give* involve an Appl head (Pylkkänen 2002; 2008), Kinyarwanda is such a language. In Kinyarwanda, ditransitive roots can appear with the benefactive applicative, with the result of three non-subject arguments:

(i) Umugore a-ra-he-er-a umugabo imbwa ibiryo.
woman she-pres-give-APPL-asp man dog food
'The woman is giving food to the dog for the man.' (Kimenyi 1980: 65)

Notice, however, that ditransitive verbs denoting the transfer-of-possession involve a low Appl, not high Appl, according to Pylkkänen (2002; 2008). The benefactive applicative *-er* is a suffix to the verb, suggesting that it realizes a head above the verbalizing head – namely, high Appl. The structure of (i) then contains two instances of Appl but those that occupy different structural locations – one below *v*/√P (i.e., low Appl) and the other above *v*P (i.e., high Appl). Thus, the grammaticality of (i) does not counter to the present proposal that two high Appls cannot co-occur.

[24] The specifics of the (non-)Voice-bundling property in Korean are discussed in section 5.1.

suggests that *v*P is not responsible for hosting a syntactic argument, but plays the part of labeling the category (Cuervo 2003; Harley 2013a).

4.2.2. Hiaki transitive roots and CAUS-APPL

Let us now consider the prediction about the compatibility of transitive roots and the CAUS-APPL sequence. Hiaki has two different forms for intransitive and transitive 'eat' as in (49).

(49) a. Ili uusi muunim bwa'e-k.
little child beans.Acc eat_{vt}-Perf
'The little child ate beans.'

b. Ili uusi hi'ibwa-k.
little child thing.eat_{vi}-Perf
'The little child ate.'

Compare the causative of the transitive *bwa'e* 'eat_{vt}' and that of the intransitive *hi'ibwa* 'eat_{vi}' in (50).

(50) a. Alle ili usi-ta muunim bwa'a-tua-k.
Alle little child-Acc beans.Acc eat_{vt}-CAUS-Perf
'Alle made the little child eat beans.'

b. Alle ili usi-ta hi'ibwa-tua-k.
Alle little child-Acc thing.eat_{vi}-CAUS-Perf
'Alle fed the little child.'

The root *hi'i.bwa* 'thing.eat_{vi}' combines with *-tua* to derive a transitive verb 'feed' in (50b). That is, in the case of *hi'ibwa-tua*, the suffix *-tua* is a lexical causative, while *bwa'a-tua* involves a productive causative *-tua*. See Tubino Blanco (2010: 278-289) for

independent evidence that *hi'ibwa-tua* contains a lexical causative, rather than a productive one.

Conforming to the current prediction about CAUS-APPL, only *hi'ibwa* allows the *tua-ria* sequence to follow it, but not *bwa'e* 'eat$_{vt}$':[25]

(51) a. *Alle avachi-ta ili usi-ta muunim
Alle brother-Acc little child-Acc beans.Acc

bwa'a-tua-ria-k.
eat$_{vt}$-CAUS-APPL-Perf
'Alle, for brother, made the little child eat beans.'

b. Alle avachi-ta ili usi-ta hi'ibwa-tua-ria-k.
Alle brother-Acc little child-Acc thing.eat-CAUS-APPL-Perf
'Alle fed the little child for brother.'

Notice that the fact that *-tua* in (51b) is a lexical causative means that it selects for the root phrase. It follows that *ili uusi* 'little child' is an internal argument of the root *hi'ibwa* (thing-eat), playing the role of Possessor (Tubino Blanco 2010). This root-internal position of *ili uusi* 'little child' is also consistent with the fact that it can co-occur with a separate Beneficiary argument *avachi* 'brother' in (51b). Their co-occurrence demonstrates that *ili uusi* 'little child' cannot be located as high as Spec-(high) Appl.

5. Elaborating the Structure of CauseP and ApplP – Variation between Hiaki and Korean

The upshot so far is that the ordering restrictions in Hiaki and Korean between

[25] Interestingly, the Korean equivalent of (51b) is not allowed. As we will see in chapter 3, this can be linked to the fact that Korean high Appl realized by *-ecwu* introduces a high Possessor.

applicative and causative morphemes are due to the size of the complement that the applicative and causative heads take. In particular, the APPL-CAUS order involves a productive causative morpheme, while CAUS-APPL involves a lexical causative morpheme, appearing closer to the root than the productive one. As a result, CAUS-APPL occurs in a more limited distribution than APPL-CAUS. In this section, I show that while the two languages have the selectional properties of the relevant functional heads in common, they differ in two respects: (i) the Voice-bundling property (Pylkkänen 2002; 2008) of the *v* and Voice heads when it comes to productive causatives, and (ii) the Case-licensing ability of the Appl head.

5.1. Voice-bundling of Voice and *v*

Lexical causatives in both Hiaki and Korean are non-Voice-bundling – *v* and Voice are realized by distinct heads. This can be seen in (52)-(53), where the suffixes that correspond to *v* and Voice heads are both realized:

(52) Bwa'am on-tua-wa-k.
food salt-LEX.CAUS-PASS-Perf
'The food was salted.' [*Hiaki*]

(53) Lamyen-i ta kkul-i-eci-ess-ta.
noodles-Nom all $boil_{vi}$-LEX.CAUS-PASS-Past-Comp.
Lit. 'The noodles were all boiled.' ('The noodles are ready.') [*Korean*]

As for productive causatives, Hiaki is non-Voice-bundling (Tubino Blanco 2010), whereas Korean is Voice-bundling. In other words, Hiaki *v* and Voice heads, which appear above the inner VoiceP that corresponds to the caused event, can be realized as

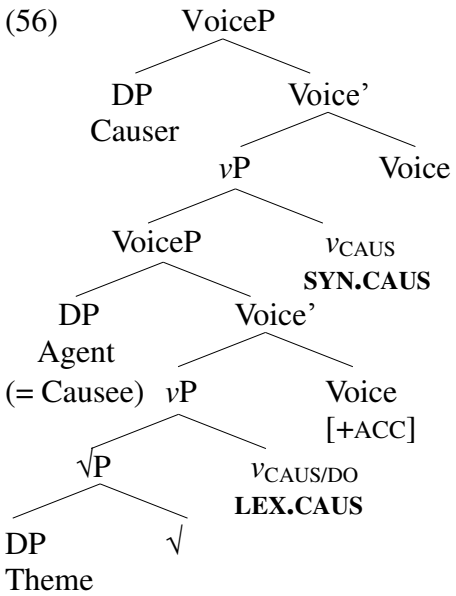
separate morphemes in (54), whereas the Korean counterparts in (55) cannot:

(54) Empo Huan-ta chochon-tua-wa-k
you John-Acc punch-SYN.CAUS-PASS-Perf
'You were made to punch John.' (Escalante 1990: 86) [*Hiaki*]

(55) *Yenghi-ka ppang-ul kwup-keyha-eci-ess-ta.
Yenghi-Nom bread-Acc bake-SYN.CAUS-PASS-Past-Comp
'Yenghi was made to bake bread.' [*Korean*]

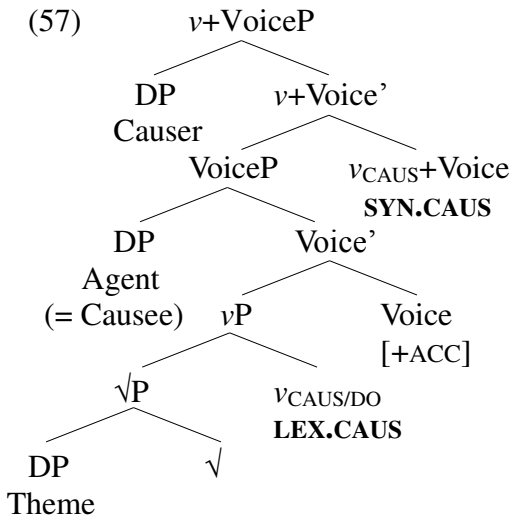
The fact that Korean productive causative and passive suffixes cannot co-occur demonstrates that the two heads are bundled into one syntactic head. The updated structures of the CauseP in (7) in Hiaki and Korean are as follows:

(56)



[*Hiaki*]

(57)

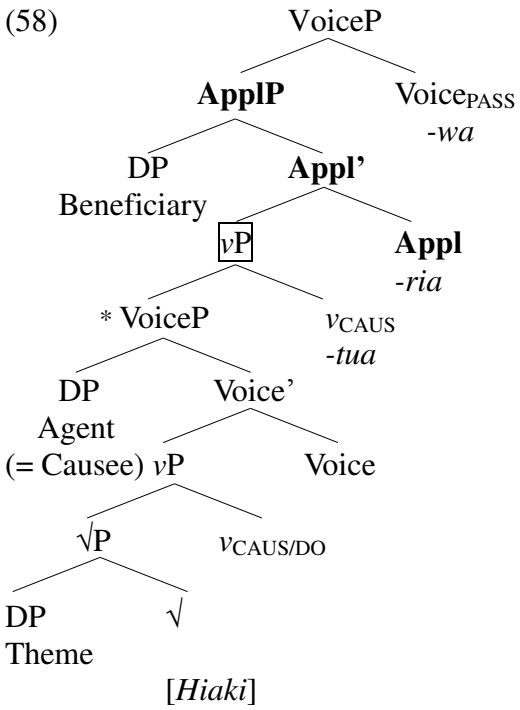


[*Korean*]

The distinct Voice-bundling properties of lexical and productive causatives in Korean suggest that whether *v* and Voice are syntactically distinct or not can vary within a language, as well as across languages.

Since the Korean second verbalizer and Voice are bundling, the structure (57) would not lead us to expect any intervening Appl on the second phrase. However, the grammaticality of (54) raises a question in Hiaki of whether there is 'room' for an Appl head to appear between the matrix Voice and *v*P in (56) (Harley p.c.). In this case, Hiaki Appl would be selecting for the second verbalizer, and is in turn selected for by the matrix Voice in (56). Notice, however, that the current analysis of Appl proposed in (6) predicts that such a position for *-ria* is not possible. This is because in such a structure *-ria* ends up embedding a VoiceP under it, as in (58):

(58)



[*Hiaki*]

Since the Beneficiary is structurally higher than the Agent-Causee argument in (58), passivization, if it is possible, would involve the A-movement of the Beneficiary argument, as in (59). As expected, (59) is an ungrammatical sentence:

(59) *Hose enchi Goyo-ta chochon-tua-ria-wa-k
Hose you.Acc Goyo-Acc punch-SYN.CAUS-APPL-PASS-Perf
Intended: 'You were made to punch Goyo for Hose.' [*Hiaki*]

This is in sharp contrast with the grammatical (60). In (60), the passive suffix follows the CAUS-APPL sequence, which is argued to involve the lexical causative suffix *-tua*:

(60) Ili uusi uka bwa'am-ta on-tua-ria-wa-k.
little child the food-Acc salt-LEX.CAUS-APPL-PASS-Perf
Lit. 'The little child was salted the food for.'

The impossibility of a structure like (58)-(59) provides further support for the current syntactic analysis of the restriction on morpheme ordering in (3). The ungrammaticality of (59) (as well as the original data in (3)) results from the syntactic property of high Appl that it cannot embed a structure that is as large as VoiceP. The selectional requirement of the high Appl in Hiaki and Korean is that it must select for the first verbalizing *v*P, as depicted in the proposed structure in (6). If the derivation up to the first VoiceP constitutes the first phase (Ramchand 2008), it follows that the location of high Appl is restricted to be between *v*P and VoiceP in the first phase.

5.2. The function of Appl

Besides the Voice-bundling property of the productive causative heads, Hiaki and Korean differ in the applicative head's ability to accomplish structural Case-licensing. The basis for this claim lies in the distinct case marking on the applied argument between Hiaki and Korean. The Hiaki Beneficiary argument is accusative case marked, while that of Korean is dative marked:

(61) Maria Santo-**ta** uka toto'i-ta hinu-ria-k.
Maria Santos-**Acc** the chicken-Acc buy-APPL-Perf
'Maria bought the chicken for Santos.' [*Hiaki*]

(62) Yenghi-ka tongsayng-**eykey** ppang-ul kwuw-ecwu-ess-ta
Yenghi-Nom brother-**Dat** bread-Acc bake-APPL-Past-Comp
'Yenghi baked bread for brother. ' [*Korean*]

The case marking on the Beneficiary is different between the two languages because in Hiaki the Appl head, as well as Voice, licenses a structural accusative Case (Harley 2013a), unlike the one in Korean. The contrast in the passive versions of (61)-(62) provides evidence for this proposal:

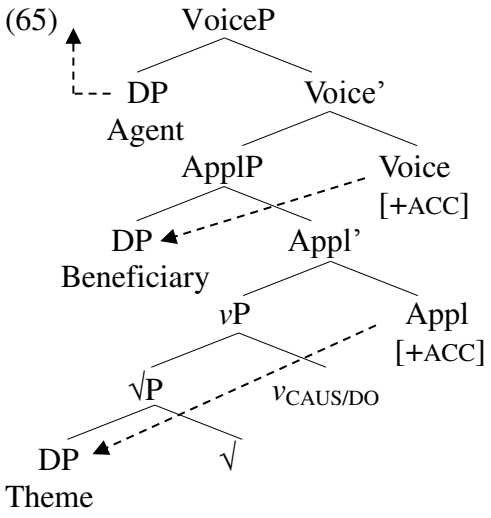
(63) Santo uka toto'i-ta hinu-ria-wa-k
Santos the chiken-Acc buy-APPL-PASS-Perf
'Santos was bought the hen for.' [*Hiaki*]

(64) *Tongsayng-i ppang-ul/-i kwuw**-**ecwu-eci-ess-ta.
brother-Nom bread-Acc/-Nom bake-APPL-PASS-Past-Comp
'Brother was baked bread.' [*Korean*]

The grammaticality of (63) shows that the Beneficiary in Hiaki is available for Agree (Chomsky 2000; 2001) with a higher T (and for subsequent movement), from which it is licensed with a structural nominative Case. On the contrary, the ungrammaticality of (64) shows that the Beneficiary in Korean is not active for Agree with T, suggesting that it does not need a structural Case, presumably because it bears an inherent one.

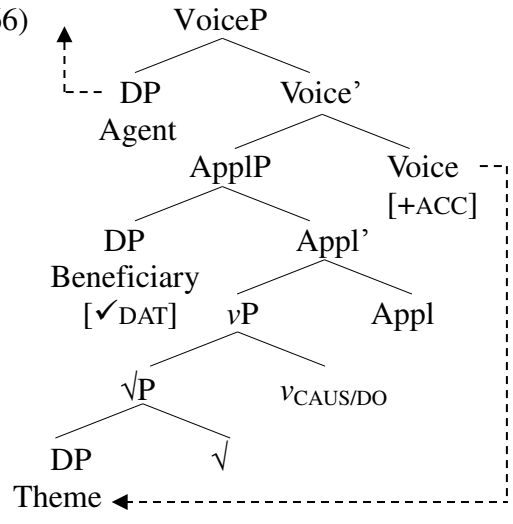
Argument licensing in Hiaki and Korean can then be schematized as (65)-(66), respectively:

(65)



[*Hiaki*]

(66)



[*Korean*]

In (65) the Hiaki Beneficiary argument, which is higher than the Theme and checks accusative Case against the Voice head, undergoes movement if passivized like (63). Then, Appl must license a structural accusative Case to the Theme. This is because Appl is the only functional category in (65) left within the verb domain that could legally probe the Theme DP (Marantz 1991), given that in this system, *v* is incapable of doing so by virtue of being a sheer verbalizer, which is incapable of introducing an argument. This yields the grammatical (61) and (63). In contrast, in (62) there is no motivation for the inherently dative-marked Beneficiary to be probed for A-movement to the subject position in a passive in (64). It follows that in Korean the Voice head directly licenses the Theme, and that the Appl does not license a structural Case as in (66).

6. Variation of APPL-CAUS and CAUS-APPL

6.1. A CAUS-APPL language – Chicheŵa

The hypothesis that syntactic structures are responsible for morphological restrictions

provides a principled account of the interaction between the applicative and lexical/productive causatives in Hiaki and Korean. I have proposed that when the CAUS-APPL order is observed in the two languages, the CAUS morpheme is the lexical causative *v* head, whereas the APPL-CAUS order is associated with the productive causative *v* (or Voice bundled with *v* in the case of Korean). One might wonder if this idea can be extended to explain applicative-causative interactions in other languages. In this section, I show that the seemingly opposite ordering restrictions on the applicative and causative affixes found in Chichewa result from the different selectional properties of the productive causative head in Chichewa. I conclude, therefore, that the Chichewa applicative-causative interaction in fact corroborates the syntactic approach to affix ordering.

The current proposal may appear to be faced with a counterexample when considering a Bantu language like Chichewa. In Chichewa, it is the CAUS-APPL order, not APPL-CAUS, that is required between the benefactive applicative and the productive causative (Hyman & Mchombo 1992, Hyman 2003, Mchombo 2004) as illustrated in (67). The ordering of the suffixes then appears to be opposite to that in Hiaki and Korean.

(67) a. Kalulú a-ku-phík-**íts-íl**-a mkángó maûngu
1a-hare 1Subj-Pres-cook-**CAUS-APPL**-fv 3-lion 6-pumpkins

(kwá chigawênga).
(by 7-terrorist)
'The hare is getting pumpkins cooked for the lion (by the terrorist).'

b. *Kalulú a-ku-phík-**íl-íts**-a mkángó maûngu.
1a-hare 1Subj-Pres-cook-**APPL-CAUS**-fv 3-lion 6-pumpkins
(Mchombo 2004: 89)

On a closer look, however, the Chichewa causative differs from the productive causative structure in (7)/(56)-(57). Specifically, it is like the Romance *faire par* causative in that the Causee is expressed as an optional *by*-phrase (Baker 1988). Folli & Harley (2007) argue that the complement of *faire par* causative lacks a functional category hosting an Agent – VoiceP, in the present terms. We can then explain the contrast in (67). If the Chichewa causative excludes the VoiceP from its complement, like a *faire par* causative, the CAUS-APPL order in (67a) is predicted to be acceptable under a structure where the Appl selects for a *v*P and the higher Voice introduces the Causer. The reverse, however, must be ruled out, which suggests that the ApplP layer, plus its complement *v*P, exceeds the size of the structure the causative can hold.

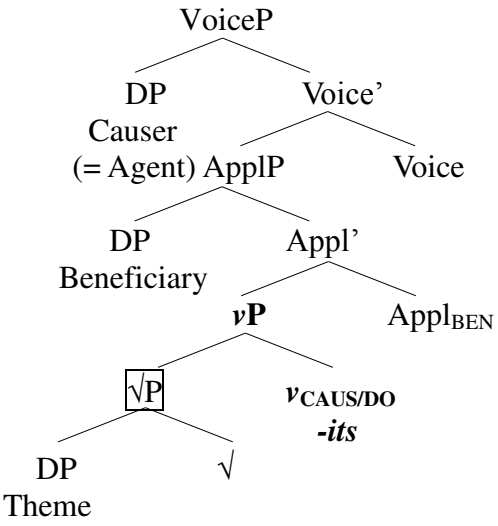
There are two analytic options that meet this condition. The lexical causative structure accompanying an Appl layer proposed in (6) for Hiaki and Korean, repeated in (68), satisfies the syntactic requirements of the Chichewa causative in (67a). However, recall that in a lexical causative like (68), the Causer, as the Agent, directly exerts its influence on the Theme (e.g., *Yenghi boiled noodles for her brother*). That is, it is a subset of an agentive transitive structure, with an additional benefactive applicative layer.[26] In contrast,

[26] A "subset" because agentive transitive roots with a Theme and an Agent like (i) also pertain to this structure, besides lexical causatives of unaccusative roots. Recall that when the root is an agentive transitive root like (i), no overt little v_{DO} suffix is spelled out, either in Hiaki or in Korean.

(i) Mary-ka tongsayng-eykey ppang-ul kwup-∅-ecwu-ess-ta. [*Korean*]
Mary-Nom brother-Dat bread-Acc bake-v_{DO}-APPL-Past-Comp
'Mary baked bread for brother.'

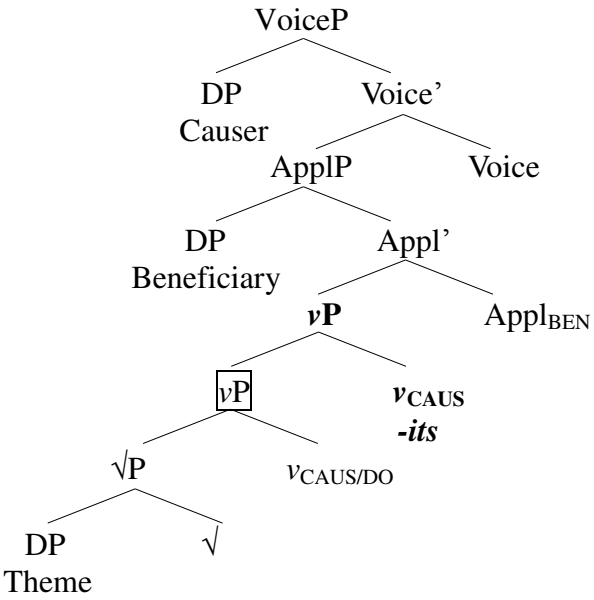
the Chichewa CAUS in (67a) is a productive causative, where the Causer brings about the caused event outside of that event. Moreover, a productive causative, by definition, is expected to be productively attached to any verb. This contrasts with lexical causatives which are attached to a limited set of roots. That being said, we need a different type of causative structure for the Chichewa case in (67a), proposed in (69). This kind of causative has been typologically attested, known as verb-selecting causative (Pylkkänen 2002; 2008).

(68) Option #1 ✗



[*Root-Selecting Causative*]

(69) Option #2 ✓



[*Verb-Selecting Causative*]

An additional piece of evidence which supports the structure in (69) over (68) comes from (70). (70) is acceptable in Chichewa, with both the lexical causative and productive causative morphemes preceding the applicative suffix:

(70)	Chibwe a-na-ku-**z-its-ir**-a	mwana	malaya.
	Chibwe subj-past-be.big-**LEX.CAUS-SYN.CAUS-APPL-**fv	child	shirt
	'Chibwe had someone enlarge the shirt for the child.'		

Simango (1995; 1999) argues that Chichewa has a set of transitive verbs formed through lexical causativization. *Kuz* 'enlarge' is a lexical causative of *kulu* 'be.big'. Its productive causative counterpart is *kul-its* 'make large' (Dubinsky & Simango 1996). Then, in (70) the inner lexical causative will occupy the root-adjacent *v* position, while the productive one occupies the higher *v*, which in turn is selected by the applicative as the structure (69) predicts.[27]

An important question one might ask at this point is: why can't the Appl select for the first/inner *v*, not the second/outer *v*, with the consequent APPL-SYN.CAUS order, if Appl selects for a *v*P complement anyway? I suggest that the constraint imposed on the productive causative takes precedence over the capability of the Appl to take a *v*P complement. That is, the productive causative in (67a)/(69) selects for a *v*P complement, and cannot take additional structure (i.e., ApplP). As a result, in the proposed structure in (69), the requirements of both the causative and applicative heads are satisfied – the Appl still takes a *v*P complement (i.e., the second *v*P) and the causative excludes VoiceP from its complement by directly taking a *v*P (i.e., the first *v*P). In other words, the CAUS-APPL order is the only way to satisfy the structural requirements of both the productive causative and the applicative heads that they take a *v*P complement with no embedded VoiceP. We can then conclude that the c-selectional properties of the functional heads may take precedence over the need to conform to semantic compositionality, leading to apparent Mirror Principle violations (Hyman 2003).

[27] See section 3.3.1 of Chapter 5 for more evidence that Chichewa causative with an adjunct Agent-Causee belongs to verb-selecting type in Pylkkänen's (2002; 2008) causative typology.

6.2. On the variation of APPL-CAUS and CAUS-APPL

The discussion so far leads us to conclude that the difference in the size of the complement taken by the productive causative head in Hiaki/Korean and Chicheŵa is the source of variation in the applicative and causative suffix ordering between the two language groups.

In particular, in Hiaki and Korean the productive causative is the second v_{CAUS}, which selects for a VoiceP.[28] The applicative, on the other hand, selects for the first $vP_{CAUS/DO}$. The first $v_{CAUS/DO}$, in turn, can be occupied by a lexical causative suffix, the verbalizer closer to the root than the productive causative. Therefore, in Hiaki and Korean, the APPL-CAUS order involves a productive causative suffix, while the CAUS-APPL order involves a lexical causative morpheme. Thus, an attempt to use CAUS-APPL with the productive causative structure results in ungrammaticality – (3)-(4) – and the CAUS-APPL order occurs in limited environments compared to the APPL-CAUS order.

The entire structure involving the productive causative, the lexical causative (of unaccusative), and the applicative heads would be as in (72) and (73) in the two languages.[29]

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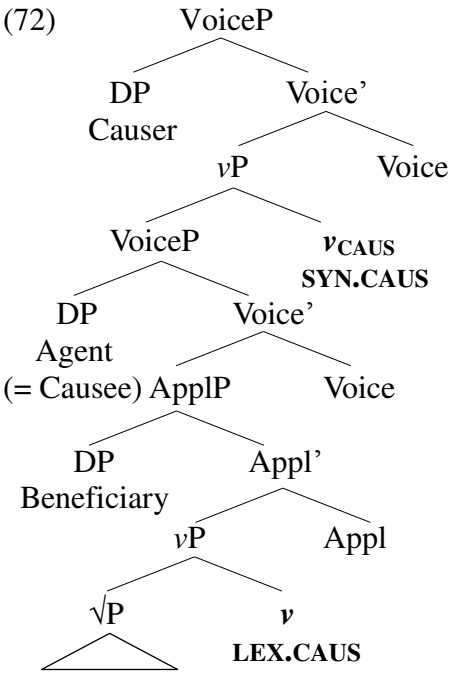
[28] Recall that Korean productive causative v_{CAUS} is bundled with the higher Voice, as discussed in section 5.1, differing from the Hiaki counterpart. I call the productive causative v_{CAUS} in this section for simplification.

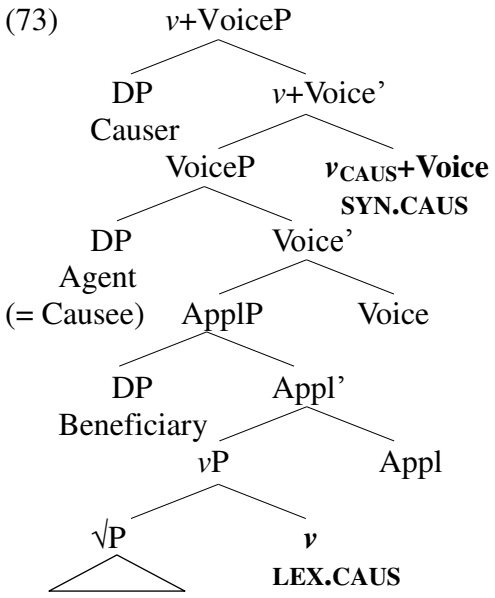
[29] The structure of productive causatives in Korean is updated in Chapter 4, where the causative predicate *-keyha* further decomposed. This, however, does not affect the main conclusions here that the productive causative selects for VoiceP and that the *v* and Voice are bundling in the second phase.

(72)



[*Hiaki*]

(73)



[*Korean*]

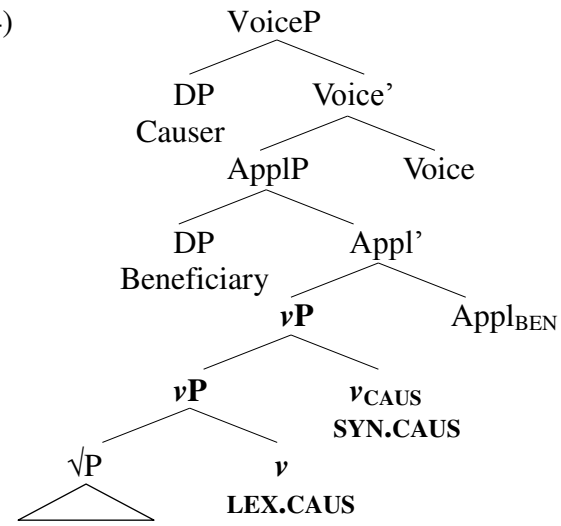
<Final version of the CAUS and APPL structures in Hiaki and Korean>

Now let us turn to the Chichewa case, where the ordering between the productive causative and applicative is CAUS-APPL. We have seen in section 6 that in Chichewa, both the productive causative and applicative heads select for a *v*P. When the productive causative and benefactive applicative co-occur as in (69), repeated below in (74), the productive causative takes a *v*P complement. Here the productive causative does select for a caused event, but the Causee must be dropped.[30]

[30] The fact that the Causer can either be animate or inanimate in a productive causative in Chichewa (Simango 2004: 203) provides evidence that Chichewa productive causative is v_{CAUS}, not v_{DO}, in Folli & Harley's (2005; 2007) classification:

(i) Dzuwa li-na-psy-ets-er-a alimi zipatso.
sun subj-past-ripen-CAUS-APPL-fv farmers fruits
'The sun made the fruits ripen for the farmers.'

(74)



<Final version of the CAUS and APPL structure in Chichewa>

The ordering of CAUS-APPL in the language results when the productive causative v_{CAUS}, taking a *v*P, is in turn selected by the Appl, as depicted in (74). In (74), we see that Chichewa Appl is allowed to take the second v_{CAUS}P complement, according the conclusions in (69)-(70), unlike the Hiaki and Korean Appl, which must select for the first verbalizing *v*P.

The Appl and second v_{CAUS} in (72)-(74), which are realized by APPL and SYN.CAUS suffixes respectively, exhibit the structural properties below:[31]

(75)

	Korean/Hiaki	Chichewa
Appl selects for	(first) *v*P	(second) *v*P
second v_{CAUS} selects for	VoiceP	(first) *v*P
structural hierarchy	Second v_{CAUS} > Voice > Appl > first *v*	Voice > Appl > second v_{CAUS} > first *v*
suffix order	APPL-SYN.CAUS	SYN.CAUS-APPL

[31] As will be shown in (78)-(79), Chichewa Appl select for first *v*Ps as well, confirming the generalization that high Appl is located between *v*P and Voice in the first phase.

Two things capture the interrelations between the Appl and second v_{CAUS} heads in (75). First, in all three languages, Appl selects for a *v*P complement, but it cannot embed a structure corresponding to VoiceP. The universal property of high Appl emerges here – it is *v*P-selecting and must be introduced in the first phase. Second, Korean/Hiaki and Chichewa differ in the type of the complement taken by the second v_{CAUS} – VoiceP in Korean/Hiaki and *v*P in Chichewa. This variation in the complement selection by the productive causative head (i.e., second v_{CAUS}) and the universal requirements of high Appl explain the two suffix orders in (75).

The present proposal makes several predictions about the behaviors of Chichewa Appl. First, if high Appl cannot embed a VoiceP structure as argued in this chapter, the benefactive applicative suffix in Chichewa should not be able to follow the passive morpheme, just like in Hiaki and Korean. This prediction is borne out. Alsina (1999) observes that in order to passivize (76a), the passive suffix must follow the applicative suffix as in (76b):

(76) a. Ana a-na-tumiz-ir-a mtsogoleri zipatso.
children subj-past-send-APPL-fv leader fruit
'The children sent the leader fruit.'

b. Mtsogoleri a-na-tumiz-**ir-idw**-a zipatso (ndi ana).
leader subj-past-send-**APPL-PASS**-fv fruit (by children)
'The leader was sent fruit (by the children).' (Alsina 1999: 9)

The benefactive applicative suffix cannot follow the passive suffix:

(77) *Mtsogoleri a-na-tumiz-**idw-ir**-a zipatso (ndi ana).
leader subj-past-send-**PASS-APPL**-fv V fruit (by children)
(Alsina 1999: 9)

The ungrammaticality of (77) shows that Chichewa Appl behaves in parallel with Hiaki and Korean Appl in that it cannot embed a VoiceP under it.

Second, while Chichewa Appl takes a second v_{CAUS}P complement when co-occurring with the productive causative, it should be able to select for the first $v_{DO/CAUS}$P elsewhere. (78) shows that Chichewa has benefactives of unergatives (78a) or agentive transitives (78b), both of which contain a v_{DO}P.

(78) a. Mkazi a-na-**vin**-ir-a mfufu.
woman subj-past-**dance**-APPL-fv chief
'The woman danced for the chief.'

b. Nasiyani a-na-**umb**-ir-a Chikondi njerwa.
Nasiyani subj-past-**mould**-APPL-fv Chikondi bricks
'Nasiyani moulded bricks for Chikondi.' (Simango 2004: 203-204)

Interestingly, Chichewa also allows benefactives of unaccusatives (79) as well.

(79) Zipatso zi-na-**psy**-er-a alimi.
fruits subj-past-**ripen**-APPL-fv farmers
'The fruits ripened for the farmers.' (Simango 2004: 203)

Remember that a structure like (79) is not acceptable in Hiaki or Korean in (12)-(13), based on which it was argued that Hiaki and Korean Appl takes a vP$_{DO/CAUS}$ complement in the first place. Chichewa Appl can take an eventive vP in general (Simango 2004). The

data in (79) shows that Chicheŵa Appl has a wider range of *v*Ps that it can select for, compared to Hiaki and Korean Appl.[32] What is important for the present account of suffix ordering is that Chicheŵa benefactive Appl does not allow embedding of VoiceP, just like Hiaki and Korean Appl. That is, the high Appl is a syntactic head that is introduced in the first phase.

7. Implications

7.1. A Syntactic Account of Morpheme Ordering

In this chapter, I have tried to show that derivational affix ordering in the verbal complex is regulated by the structural requirements of functional heads. A consequence of this explanation is that the need to satisfy the syntactic properties of both causative and applicative heads occasionally overrides the need for semantic compositionality (as in Chicheŵa).[33] The main proposal of this chapter is thus in support of the idea of the Mirror Principle (Baker 1985; 1988), but one that is grounded on the selectional properties and hierarchical location of the relevant functional heads.

It is worth pointing out that the applicative-causative interaction in Hiaki and Korean involving the productive causative (i.e., the APPL-CAUS order) cannot be accounted for in Baker (1988)'s earlier framework. Baker (1988) analyzes causative and applicative as verb incorporation and preposition incorporation, respectively. The APPL-CAUS order observed in Hiaki and Korean is predicted to be ungrammatical according to Baker (1988,

[32] In Chapter 3 I show that Korean high Appl actually takes a subclass of the first verbalizing *v*P complements – vP_{DO} – distinguishing itself from its Hiaki counterpart.

[33] The semantically non-compositional examples of Chichewa are more clearly observable in Hyman (2003), whose data include the applicative suffix that is instrumental, rather than benefactive.

chapter 7.2). This is because neither of the two possible derivations succeeds. First, if verb incorporation precedes preposition incorporation, the preposition incorporation involves an acyclic combination, leaving traces not properly governed. Such derivation is ruled out by the ECP in Baker's framework. Second, if prepositional incorporation feeds verb incorporation, the embedded applied argument is left with no Case, which ultimately causes this order of incorporation to be illicit (Baker 1988: 397).[34] As a result, both options are predicted to be disallowed. However, the grammaticality of the productive causative embedding the applicative in Hiaki and Korean, falsifies Baker (1988)'s prediction, and demonstrates that it is the varying selectional properties of the causative heads, rather than the order of syntactic operations, that play a role in applicative-causative interaction.

7.2. Tripartite composition of verb phrases

The results of this chapter are consistent with the recent proposals that the core verbal structure is comprised of three parts (Pylkkänen 2002; 2008, Cuervo 2003, Collins 2005, Alexiadou et al. 2006, Harley 2013a, Merchant 2013) – especially with those that posit an external-argument-introducing VoiceP; a verbalizing *v*P, which brings in the semantics of *do*/*cause*/*be*/*become*; and an acategorical root (Cuervo 2003, Harley 2013a, a.o.). This position departs from the previous assumption about verb phrases being bipartite, consisting of a lexical VP and a functional *v*P, which essentially does the work of Voice and *v* (Hale & Keyser 1993, Chomsky 1995, Harley 1995, Kratzer 1996, Marantz 1997,

[34] This is how Baker (1988) rules out the ungrammatical APPL-CAUS order in Swahili, which is a CAUS-APPL language, like Chichewa.

Folli & Harley 2005; 2007, Harley 2008a, Coon & Preminger 2011).

In the following chapters, I investigate some other consequences of, and new questions raised by, the above tripartite approach to verb structure. Specifically, I focus on the constructions involving the applicative projections (Chapter 3) and three types of causatives (i.e., root-selecting, verb-selecting and Voice-selecting causatives) (Chapters 4 and 5).

7.3. The definition of lexical causatives – first verbalizer

The present results about Hiaki lexical causatives lead one to reconsider the structural definition of lexical causatives. If lexical causatives are root-selecting, as defined in Marantz (1997) and Pylkkänen (2002; 2008), it entails that Hiaki denominal verbs such as *on-tua* 'salt-CAUS' in (5) involve the derivation of √-*v*. That is, the acategorical root is verbalized without going through nominalization. On the other hand, the alternative (i.e., √-*n*-*v*) is what Hale & Keyser (1993) assume for unergatives, which, according to them, are denominal.

At first glance, the former position (Marantz 1997, Pylkkänen 2002; 2008) is favored since the resulting verb does seem to contain a root, not an *n*P or DP. In particular, the Hiaki noun for 'salt' is *o'ona*, not *on*.[35] Thus, the morphological form of *on-tua* 'to salt' suggests that *-tua* is attached to the smallest possible unit that retains the meaning of 'salt'. This reminds one of the English root √*don-* and the idiosyncratic interpretation of the root-derived noun *donor* (Marantz 2001). Marantz (2001) argues that compared to

[35] There does exist *o'on-tua* in Hiaki, which contains a reduplicated root. Its meaning is "usually salts" (Molina et al. 1999).

donor, *donator* has a more predictable meaning, because the root undergoes a verbalizing stage via *-ate* first, before deriving as a noun. That is, the difference between *donor* and *donator* is the difference between √-*n* and √-*v*-*n*.

Additionally, denominal lexical causatives in Hiaki do not allow plural markers as the contrast in (80) shows.

(80) a. Ume arosim **mun**-tua pale-ta vechi'ivo.
the rice **bean**-LEX.CAUS boy-Acc for
'Add beans to the rice for the boy!'

b. *Ume arosim **muunim**-tua pale-ta vechi'ivo.
the rice **bean.pl**-LEX.CAUS boy-Acc for

Assuming that a DP is comprised of a multiple layers and that there exists an inflectional number layer NumP above RootP (Ritter 1991 a.o.), the contrast in (80) suggests *-tua* is attached to the root, excluding the NumP layer.

However, the well-formedness of (81) suggests that the root is incorporated to *v*, leaving the DP that it originates in:[36]

(81) In maala Maria-ta tee-ta [husai-k t_i]
my mother Maria-Acc tea-Acc brown-Acc?

asuka$_i$-tua-ria-k.
sugar-LEX.CAUS-APPL-Perf
'My mother added brown sugar to the tea for Maria.'

The fact that a modifier of *asuka* 'sugar' is allowed in (81) reveals that the lexical

[36] Jelinek (1998) and Haugen (2004) discuss cases of possessive denominal verbs which result from a similar derivation – that is, incorporation of the root to *v*. The difference is that the possessive denominal verbs involve a different flavor of *v* – namely, v_{BE}.

causative *-tua* takes at least an *n*P as its complement, not an acategorial RootP.[37] Then, what the contrast in (80) and the morphological form of *on-tua* show is that on the surface, the *v* immediately follows the root, rather than selects for it. Therefore, the case of denominal lexical causatives provides evidence that lexical causatives are more accurately characterized when defined as the 'first verbalizer' (Harley p.c.), rather than as the root-selecting *v*. Notice that the group of lexical causatives involving a verbal root (e.g., *hi'ibwa-tua* 'eat$_{vi}$-LEX.CAUS' = 'feed') are truly root-selecting, but are subsumed under this definition.

8. Conclusions and Remaining Questions

In this chapter, I have shown that the interplay of the three functional heads Voice, high Appl, and *v* yields the patterns of derivational morpheme ordering and variation among Hiaki, Korean, and Chicheŵa. The ordering of CAUS and APPL suffixes in Hiaki and Korean and how it varies from that in Chicheŵa are regulated by the size of the complement that the applicative and causative heads take. The notion of the size of the complement can be formally captured by two fundamental properties: (i) the complement selection imposed by the relevant functional heads; (ii) whether a functional head has a designated syntactic phase within which it must be introduced. Some questions remain from this chapter, which I discuss below.

[37] In fact, according to Haugen (2004)'s analysis, the embedded unit under *-tua* would be as big as a $P_{HAVE}P$ (i.e., [the tea [P_{HAVE} brown sugar]]) in (81), yielding the literal interpretation 'My mother caused the tea to have brown sugar for Maria.'

8.1. Applicative (a)symmetry within CAUS-APPL languages

The proposal made in this chapter predicts that if a language displays a CAUS-APPL suffix order with the productive causative, the causative must be verb-selecting and vice versa. As a result, the CAUS-APPL construction ends up with two non-subject arguments since an intermediate Causee is not syntactically present in the verb domain. Kinyarwanda is well-known to behave quite differently from Chichewa when it comes to double object constructions (Baker 1988, Marantz 1984; 1993, Alsina & Mchombo 1993, Bresnan & Moshi 1993, McGinnis 2001; 2002, Baker et al. 2012, a.o.). Kinyarwanda, unlike Chichewa, is a typical symmetrical object language, where both of the two Theme and Goal objects can be passivized. Chichewa, in contrast, is an asymmetrical object language, because only the applied argument can undergo passivization, but not the Theme. Interestingly, Kinyarwanda also exhibits the order of CAUS-APPL:

(82) N'iiki umugore a-ryaam-**iish-ir**-ije umwaana?
what woman she-sleep-**CAUS-APPL**-asp child
'Why is the woman putting the child to sleep?' (Kimenyi 1980: 169)

The morpheme order in (82) suggests that Kinyarwanda causative is verb-selecting, just like Chichewa causative. Accordingly, it would be worth investigating whether there is a link between the selectional properties of the productive causative head and the applicative (a)symmetry. Notice, however, that (82) contains a circumstantial applicative, rather than the benefactive one. An interesting question would then be to look into the interaction between a productive causative and a benefactive applicative construction in the language. I have found no Kinyarwanda example with the Causee, Beneficiary, and

Theme arguments all co-occurring in the structure. If it does allow an intermediate Causee, one then might examine whether it is a true argument, rather than an adjunct, and if so, investigate how it is licensed.

8.2. A third type of causative

According to the data reported in Baker (1985), another type of productive causative construction exists, which differs from that in Chichewa in the suppressed argument. Chamorro causatives represent this new type of causative. (83) shows the Chamorro causative embedding an intransitive root (83a) and a transitive root (83b). What is at issue is that with the embedded transitive root (83b), the caused event contains an overtly expressed Causee, while the underlying Theme becomes an oblique:

(83) a. Ha#**na'**-maipi si Maria i hanum.
3sS-**CAUS**-hot PN Maria the water
'Maria heated the water.'

b. Ha#**na'**-taitai ham i ma'estru **ni** eesti na lebblu.
3sS-**CAUS**-read 1pex-obj teacher **obl** this book
'The teacher made/let/had us read this book.' (Baker 1985: 384)

So far I have addressed cases where the Agent-Causee is structurally licensed (i.e., when the causative is Voice-selecting, as in Hiaki/Korean), or is dropped (i.e., in a verb-selecting causative, as in Chichewa). In contrast, in a Chamorro causative, the Theme is suppressed by virtue of being oblique marked, rather than the Agent-Causee.

Baker (1985) groups Bemba causatives with Chamorro causatives. The Bemba causative is argued to be a verb-selecting causative (Pylkkänen 2002; 2008). However,

the fact that a Chamorro causative can embed a passive construction as in (84) suggests that the causative is likely to be Voice-selecting.

(84) Hu#**na'**-fan-s-**in**-aolak i famagu'un gi as tata-n-niha.
1sS-**CAUS**-pl-**PASS**-spank children obl father-their
'I had the children spanked by their father.' (Baker 1985: 385)

If *na'* heads a v_{CAUS} that selects for a VoiceP complement, then questions arise as to why in (83) the Theme, not the Causee, that becomes oblique, and where Chamorro causative fits in the causative typology.[38]

[38] Harley (p.c.) points out that this may be connected to the fact that Chamorro is an ergative/absolutive language.

CHAPTER 3. APPLICATIVE AND VERBALIZING HEADS

This chapter has two goals. First, I investigate the disjunctive behaviors of the verbal suffix *-ecwu* in Korean in its role in introducing an argument. I argue that this peculiarity arises because *-ecwu* can realize two distinct syntactic heads – namely, a high applicative and a verbalizing head. Second, I situate the current analysis of *-ecwu* within the typology of applicatives and verbalizing heads.

The present proposal that *-ecwu* can realize either a high applicative or a verbalizing head is grounded in the fact that *-ecwu* introduces a new argument only in a particular syntactic context – in the context of $v\mathrm{P}_{\mathrm{DO}}$ complements (sections 1 and 2). I provide some preliminary evidence for the proposed structures in section 3 and confirm the hypothesis by examining broader distributions in section 4. In section 5, I examine the consequences of the inability of *-ecwu* to introduce a new argument when it occupies a little *v* head.

In the second half of the chapter, I extend the analysis of *-ecwu* into a broader typological context. I observe that Appl *-ecwu* exhibits curious syntactic behaviors compared with other kinds of Appls cross-linguistically, as summarized in Table 1 below.

[Table 3.1]

	English	Chichewa	Korean
Applicative of unergatives	No	Yes	only with incorporated object
Applicative of creation transitives	Yes	Yes	Yes
Applicative of other transitives	No	Yes	some but not all
Depictive of applied argument	No	Yes	No

To capture the behaviors of Korean Appl, I propose that Koraen Appl *-ecwu* introduces a high Possessor argument, adopting the idea of Shibatani (1994; 1996) and Kim &

Tomioka (2013) (section 6). However, I depart from them by demonstrating that *-ecwu* is not associated with a separate, covert Beneficiary. This corroborates the distinct functions of *-ecwu* as an Appl and as a little *v*. In section 7, the diagnostics are presented that distinguish among low Possessor arguments (e.g., English), high Possessor arguments (e.g., Korean), and high Beneficiary arguments (e.g., Chichewa, Luganda) in Table 3.1. Section 8 introduces an optional verbalizing head in Bahasa Indonesia, which resembles the use of *-ecwu* as a little *v* head. Section 9 concludes and discusses remaining issues.

1. The Role of *-ecwu* in Argument Introduction

Korean *-ecwu*, as a main verb means 'give', which involves a dative Goal argument and an accusative Theme:

(1) Yenghi-ka ai-eykey chak-ul **cwu**-ess-ta.
Yenghi-Nom ai-Dat book-Acc **give**-Past-Comp
'Yenghi gave the child a book.'

When used as a verbal suffix, *-ecwu* is known to introduce a dative Beneficiary argument (Shibatani 1994, You 1997, Oh & Zubizarreta 2009, Oh 2010, Song 2010), as in (2).[1] The verbal suffix *-ecwu* accompanies the linking vowel *-a/-e*, which exhibits vowel harmony with the closest vowel of the preceding verb. Henceforth, I take *-ecwu* as the

[1] By denoting a single event, an applicative sentence such as (2) differs from (i), which involves two sequential events (Yugyeong Park, p.c.). As seen in (ii), (2) cannot be associated with two temporal adverbs, demonstrating that it involves a single event.

(i) Yenghi-ka ai-eykey$_i$ ecey ppang$_j$-ul kwuw-**e(se)** t_i onul pro_j **cwu**-ess-ta.
Yenghi-Nom child-Dat yesterday bread-Acc bake-**after** today **give**-Past-C
'Yenghi baked bread yesterday, then gave it to the child today.'

(ii) *Yenghi-ka ai-eykey ecey ppang-ul onul kwuw-**ecwu**-ess-ta.
Yenghi-Nom child-Dat yesterday bread-Acc today bake-**give**-Past-Comp

underlying form of applicative suffix as it is unmarked.

(2) Yenghi-ka ai-eykey ppang-ul kwuw-*(**ecwu**)-ess-ta.
Yenghi-Nom child-Dat bread-Acc bake-*(**give**)-Past-Comp
'Yenghi baked bread for the child.'

In this dissertation, I focus on the usage of *-ecwu* as a verbal suffix in (2), rather than as a main verb in (1), though I will discuss some Korean ditransitive root data. See Jung & Miyagawa (2004), Baek & Kim (2004), Kim (2008), Levin (2010) for accounts of the double object construction and their postpositional dative counterpart in Korean.

Earlier in section 4.1.2 of chapter 2, I touched on an instance where the affixal *-ecwu* does not appear to introduce the dative argument. The sentences are repeated in (3)-(4) below. It was noted that because both (3)-(4) are acceptable, we can assume that the dative argument in (3) is already present prior to the addition of the *-ecwu* suffix:

(3) Chelswu-ka Yenghi-eykey pagkus wus-**ecwu**-ess-ta
Chelswu-Nom Yenghi-Dat beamingly smile-**APPL?**-Past-Comp
'Chelswu smiled at Yenghi for Yenghi.'
(adapted from Oh 2010: 416)

(4) Chelswu-ka Yenghi-eykey pagkus wus-ess-ta
Cheslwu-Nom Yenghi-Dat beamingly smile-Past-Comp
'Chelswu smiled at Yenghi.'

The first half of this chapter addresses the puzzle that the Korean *-ecwu* suffix poses for the analysis of *-ecwu* as a high applicative head as advocated in chapter 2. I investigate the types of stems that are associated with *-ecwu* as in (3) and reveal their systematic distributions. I call usages of *-ecwu* as in (3) "the optional *-ecwu*", because of

its omissibility from the verb phrase. To make a parallel comparison, let us consider two derived ditransitive structures (2), repeated as (5), and (6). Although (3) and (6) illustrate the same point by involving the optional *-ecwu*, comparing (6) with the applicative (5) offers a chance to probe into the distinct nature of the two dative arguments.

(5) Yenghi-ka ai-eykey ppang-ul kwuw-*(**ecwu**)-ess-ta.
Yenghi-Nom child-Dat bread-Acc bake-*(**give**)-Past-Comp
'Yenghi baked bread for the child.'

(6) Yenghi-ka ai-eykey os-ul ip-hi-(**ecwu**)-ess-ta.
Yenghi-Nom child-Dat clothes-Acc wear-LEX.CAUS-(**give**)-Past-Comp
'Yenghi dressed the child (for the child's benefit).'

While (5) becomes ungrammatical without *-ecwu,* leaving *-ecwu* out in (6) merely results in the modification of the semantics – that is, the benefactive interpretation disappears.

The contrast between (5) and (6) is not due to the presence/absence of the lexical causative suffix. First of all, we have already observed the optional *-ecwu* in (3), which does not contain a lexical causative suffix, yet behaves like (6). Second, (7) involves a lexical causative suffix, but patterns with (5), rather than (6):

(7) Yenghi-ka ai-eykey lamyen-ul kkul-**i**-*(**ecwu**)-ess-ta.
Yenghi-Nom child-Dat noodles-Acc boil$_{vi}$-**LEX.CAUS**-*(**give**)-Past-Comp
'Yenghi cooked noodles for the child.'

The optional *-ecwu* in (6) is grammatical without introducing a new argument, as opposed to (5). In fact, the optional *-ecwu* can never add one:

(8) *Yenghi-ka **Mary-eykey** ai-eykey os-ul
Yenghi-Nom **Mary-Dat** child-Dat clothes-Acc

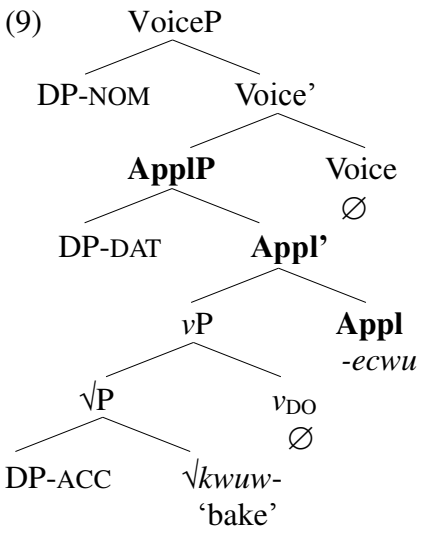
ip-hi-**ecwu**-ess-ta.
wear-LEX.CAUS-**give**-Past-Comp
'Yenghi dressed the child for Mary's benefit.'

What, then, is the source of the disjunction between (3)/(6), on the one hand, and (5)/(7), on the other? In what following, I show that claiming that the benefactive suffix in Korean corresponds to two distinct functional heads solves the puzzle. Specifically, the *-ecwu* that is capable of argument introduction is the Appl head, as was argued in chapter 2. In contrast, the optional *-ecwu* occupies one of two split little *v* heads created via an operation called 'fission' (Halle 1997, Noyer 1997) in Distributed Morphology.

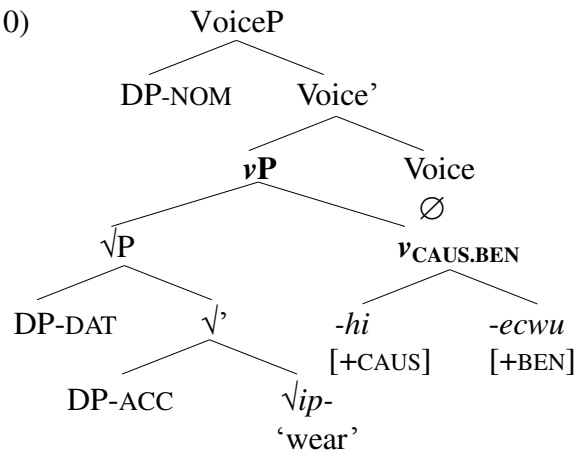
2. The Locus of *-ecwu*

I argue that the contrast between the above two groups of sentences is due to the distinct syntactic functions and positions of *-ecwu*. Specifically, in (5) and (7) *-ecwu* projects its own maximal projection as an applicative head, as in (9). By contrast, the optional *-ecwu* in (6) is a realization of a split *v* head, as in (10). I explain the details of the structure in (9) first and come back to (10).

(9)



(10)



The ApplP in (9) is selected for by Voice (Kratzer 1994; 1996) and selects for a particular type of *v*P – v_{DO}P. The proposal that Korean high Appl specifically selects for vP_{DO} complements updates the structure that was argued for the argument-introducing *-ecwu* in chapter 2. In chapter 2, I have argued that Appl selects for an agentive/causative *v*P – $v_{CAUS/DO}$P.

A discussion on the two *v* flavors v_{CAUS} and v_{DO} is in order to motivate this analysis. Folli & Harley (2005; 2007) show that v_{DO} and v_{CAUS} impose different conditions on the external arguments and complements they appear with – while v_{DO} requires a certain kind of external argument, v_{CAUS} requires a certain kind of complement.[2] Specifically, v_{DO} requires an Agent external argument, whereas v_{CAUS} requires a small clause complement. Consequently, with v_{CAUS}, the associated external argument is underspecified between an inanimate Cause and an Agent as in (11). By contrast, with v_{DO}, the complement is underspecified between a small clause and a nominal complement.

[2] Unlike here, Folli & Harley (2005; 2007) assume a bipartite structure for VPs – that is, in their system, *v* is the functional category plays the role of the Voice and *v* simultaneously.

(11)

	Specifier	Complement
v_{DO}	Agent	nominal or small clause
v_{CAUS}	Causer or Agent	small clause

(Folli & Harley 2007: 210)

According to this distinction, verbs of creation such as *kwup-* 'bake' in (6) in Korean are typical v_{DO} verbs, since they always take a nominal DP object. Korean creation verbs (and verbs of consumption) do not appear with a particle, which marks the result of a small clause.

With regard to causatives, I assume that they are divided into two subgroups depending on whether they appear with v_{CAUS} or v_{DO}. First, v_{CAUS} is involved with lexical causatives that take a caused event/state complement in which the non-subject arguments form a small clause, as in (12). In other words, derived ditransitives such as (12) are associated with v_{CAUS}.

(12) Yenghi-ka [$_{SC}$ ai-eykey os-ul ip]-hi-ess-ta.
Yenghi-Nom [child-Dat clothes-Acc wear]-LEX.CAUS-Past-Comp
'Yenghi dressed the child.'
Lit. 'Yenghi caused the child to be dressed.'

Second, I assume that lexical causatives of unaccusatives – derived monotransitives as in (13)-(14) – appear with v_{DO}, rather than v_{CAUS}.

(13) Yenghi-ka lamyen-ul kkul-i-ess-ta.
Yenghi-Nom noodles-Acc boil$_{vi}$-LEX.CAUS-Past-Comp
'Yenghi cooked noodles.'

(14) Yenghi-ka silnay onto-lul noph-i-ess-ta.
Yenghi-Nom room temperature-Acc be.high-LEX.CAUS-Past-Comp
'Yenghi turned up the room temperature.'

The reasons are as follows. First, in lexical causatives of unaccusatives in Korean, the subject of causative always directly acts upon the Theme, as an Agent.[3] Next, lexical causatives of stative unaccusative roots like (14) do not allow a duration adverb to modify the result state of the embedded root. In (15a), only the action of turning the temperature up can be modified by the duration adverb, but not the state of the temperature being high. In order to get the latter reading, the suffix *-(e)twu* 'put' must be attached to the verbal stem, as in (15b):

(15) a. Yenghi-ka silnay onto-lul opwun-tongan
Yenghi-Nom room temperature-Acc five minutes-for

noph-**i**-ess-ta.
be.high-**LEX.CAUS**-Past-Comp
'Yenghi turned up the room temperature for five minutes.'

(The action lasted for five minutes, not the state of high temperature)

b. Yenghi-ka silnay onto-lul opwun-tongan
Yenghi-Nom room temperature-Acc five minutes-for

noph-**i**-**etwu**-ss-ta.
be.high-**LEX.CAUS**-**put**-Past-Comp
'Yenghi turned up the room temperature for five minutes.'

(The state with high temperature lasted for five minutes, not the action)

The lack of result modification in (15a) suggests that the Theme argument does not form

[3] Speakers of some languages find that lexical causatives of unaccusatives associated with inanimate Causer are significantly degraded (e.g., Korean, compared to English/Chinese, in Wolff et. al 2009) or unacceptable (e.g., Jacaltec in Craig 1976). This seems to point to the categorization of lexical causatives of unaccusatives as involving v_{DO} at least in these languages. Notice that this implementation of v_{DO} differs from the original proposal by Folli & Harley (2005), where lexical causatives of unaccusative change-of state/stative roots are considered to involve a v_{CAUS} in English and Italian due to the possibility that the construction can be associated with either an inanimate Causer or an Agent.

an inner result clause. Rather, lexical causatives of unaccusative verbs behave just like activity verbs, belonging to the v_{DO} category.

To summarize, (5) and (7) which take a single internal argument involve v_{DO}, whereas (6) with a small clause complement involves a verbalizing head of the v_{CAUS} type. We can now pick out the eventive complements that are specifically selected for by Korean Appl. If *-ecwu* which realizes the high Appl in (9) selects for the former verb group only, the well-formedness of (5) and (7) and the ill-formedness of (8) naturally follow. As discussed in (12), (8) has a verbalizing layer of the vP_{CAUS} type. The argument-introducing *-ecwu* (i.e., Appl in (9)) cannot take this type of *v*P as its complement.

A question still remains as to how *-ecwu* can optionally appear in (6) (as well as in (3)). I propose that the operations argued for in DM provide an explanation for the Korean optional *-ecwu* suffix. Specifically, I argue that *-ecwu* is the realization of a split *v* head. In (6) the terminal node *v* is split into two pieces at the end of syntax – in this case, the verbalizing *v* with the causative feature and *-ecwu* with the benefactive feature, as in (10).[4] This type of morphological adjustment is called "fission" (Halle 1997, Noyer 1997). This optional *-ecwu* then takes the position of *v*, which is not responsible for

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[4] It is worth pointing out that a malefactive interpretation is often available with the optional *-ecwu* suffix:

(i) Mary-ka casin-eykey mwulyeyha-ess-te-n namca-uyppyam-ul ttayli-(**ecwu**)-ess-ta.
Mary-Nom self-to rude-Past-Perf-Rel man-Gen cheek-Acc hit-(**give**)-Past-Decl
'Mary slapped the man who was rude to her (and he was adversely affected by the slap).'

Therefore, to provide a unified account of the optional *-ecwu* cases, postulating a feature like [+affect], rather than [+ben] or [+mal], may be more adequate. For space reasons, I restrict the optional *-ecwu* cases to the benefactive ones. Interestingly, the Appl *-ecwu* never denotes malefactiveness. This trait is naturally explained with the understanding of Appl *-ecwu* as a possessor-introducer in sections 6-7.

argument introduction, within the set of assumptions taken in this paper. Notice that the grammaticality of (3) shows that that the optional *-ecwu* does not require it to co-occur with causative verbs only. As we will see in section 3.2, its distribution aligns with eventive verbalizers in general.

The structures (9)-(10) explain the contrast in the morpheme's ability to introduce a new argument: Appl *-ecwu* introduces a new argument, spliet-*v* *-ecwu* does not. The fact that the transitive counterparts of (5) and (7) are acceptable in (16), whereas in (5) and (7) the dative argument requires the presence of *-ecwu*, shows that the dative argument is introduced by Appl, as in (9).

(16) a. Yenghi-ka ppang-ul kwuw-ess-ta.
Yenghi-Nom bread-Acc bake-Past-Comp
'Yenghi baked bread.'

b. Yenghi-ka lamyen-ul kkul-i-ess-ta.
Yenghi-Nom noodles-Acc $boil_{vi}$-LEX.CAUS-Past-Comp
'Yenghi cooked noodles.'

On the contrary, in (10) *-ecwu* is not responsible for introducing the dative argument, as the omission of *-ecwu* in (6) does not change the argument structure. This is exactly what is observed from the pair (3)-(4), where the dative argument is present in the structure irrespective of *-ecwu*. In section 3, I present independent evidence for each structure in (9)-(10).

3. Evidence

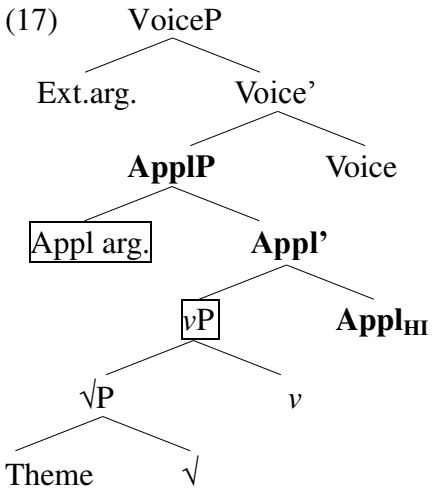
3.1. Korean Appl *-ecwu*

3.1.1. Appl -ecwu as "high" applicative

According to (9), the Appl head is located between *v*P and VoiceP. The Appl that *-ecwu* realizes then belongs to the category high applicatives under Pylkkänen's (2002; 2008) typology of applicatives. Pylkkänen classifies applicatives into two kinds based on their function and locus in syntax. The first kind is the low applicative, which relates an individual to another individual, necessarily expressing a transfer-of-possession relationship.[5] A low applicative typically represents the relationship between the indirect object and the direct object of ditransitive roots. The second is the high applicative, which relates an event (i.e., *v*P) to an individual (e.g., Beneficiary). Productive benefactive constructions in Bantu languages such as Luganda and Chaga exemplify high applicative. Pylkkänen's high and low applicative distinction in a head-final structure is represented in (17)-(18):

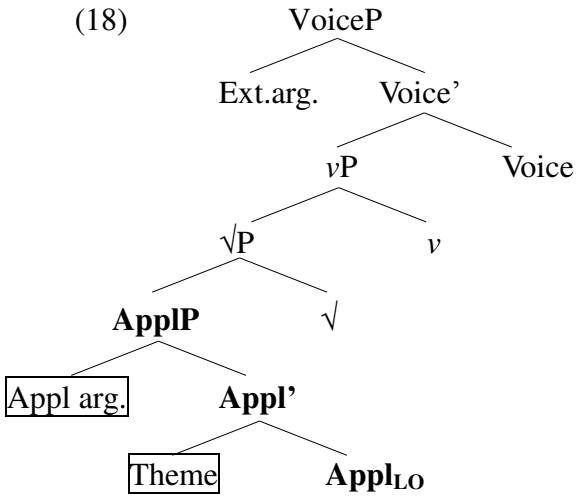
[5] This functional head has been argued to be 'P_{HAVE}' by Harley (1995; 2002). Harley's (1995; 2002) P_{HAVE} and Pylkkänen's (2002; 2008) low applicative occupy the same syntactic position. The difference is that the maximal projection of P_{HAVE} is a state, while that of low applicative is an event due to the transfer-of-possession semantics.

(17)



<*high applicative*>

(18)



<*low applicative*>

Pylkkänen proposes two diagnostics to distinguish between high and low applicatives. Here I discuss only one of the diagnostics – the transitivity restrictions. The reason is that Cuervo (2003) shows the other high applicative test – compatibility with static verbs – is invalid on the ground that Spanish static verbs (e.g., *admirar* 'admire', (*sos*)*tener* 'hold/have') involve low, not high, applicatives.[6] Let us now turn to Pylkkänen's transitivity test. The idea behind this test is that because low applicative relates two DPs (i.e., a direct object and an indirect object), it is subject to a transitivity restriction. In other words, a low applicative is only expected to occur with transitive verbs. In contrast, a high applicative, which selects for an event, not an entity, is free from this restriction. Therefore, high applicatives are compatible with intransitive, unergative verbs.

Korean *-ecwu* also is:

[6] As we will see in section 3.1.2, this test incorrectly diagnoses Korean Appl as the low applicative type. However, the current proposal that *-ecwu* is vP_{DO}-selecting predicts its incompatibility with stative verbs.

(19) a. Yenghi-ka Chelswu-eykey **nolay.ha**-ecwu-ess-ta.
Yenghi-Nom Chelswu-Dat **song.do**-APPL-Past-Comp
'Yenghi sang for Chelswu.'

b. Yenghi-ka Chelswu-eykey **yoli.ha**-ecwu-ess-ta.
Yenghi-Nom Chelswu-Dat **cooking/dish.do**-APPL-Past-Comp
'Yenghi cooked for Chelswu.'

In (19) *-ecwu* is required to introduce the dative argument, confirming that it is the Appl *-ecwu* in (9), not the little *v -ecwu* in (10). The grammatical sentences (19) in Korean contrast with their English equivalents:

(20) *Mary **sang/cooked** John.
Intended: 'Mary sang/cooked for John.'

One might argue that the acceptability of (19) does not necessarily show that Korean applicative headed by *-ecwu* is a high applicative, because unergatives with cognate objects are underlyingly transitive and that English equivalents of (20) can be made possible with an overt object as in (21):

(21) a. Mary **sang** John **a song**.
b. Mary **cooked** John **a dish**.

However, the Korean verbs in (19) are composed of an incorporated noun object and a light verb (i.e., verbalizer/little *v*).[7] Without the incorporated object, the light verb alone

[7] The Korean verbs 'sing' and 'cook' in (19) can accompany an additional object as in below, further supporting the unergative status of the verbs used in (19):

does not mean anything but 'do'. The verbs in (19) are then unergatives in Hale & Keyser's (1993) sense.[8] Thus, they really correspond to the unergative equivalents in English in (20), rather than ones in (21), which take an object in addition to the lexically contentful verbal root.

Additionally, the morpheme order in (19) makes the above counterargument untenable. This is because if *-ecwu* were a low applicative head as in (18), we would incorrectly predict *-ecwu* to precede the light verb. As a result, with the unergative stem in (19), such a hypothesis predicts *-ecwu* to occur between the incorporated object and the verb as in (23) below, contrary to fact (Harley p.c.).[9] If the Appl head is located above the verb as in (22), a position that is irrelevant for operations such as noun incorporation (Baker 1988), both facts – the morpheme order and the underlying structure of unergatives with an incorporated object – naturally follow.[10]

(i) Yenghi-ka Chelswu-eykey **kaylol-ul** **nolay.ha**-ecwu-ess-ta.
Yenghi-Nom Chelswu-Dat **carol-Acc** **song.do**-APPL-Past-Comp
'Yenghi sang a carol for Chelswu.'

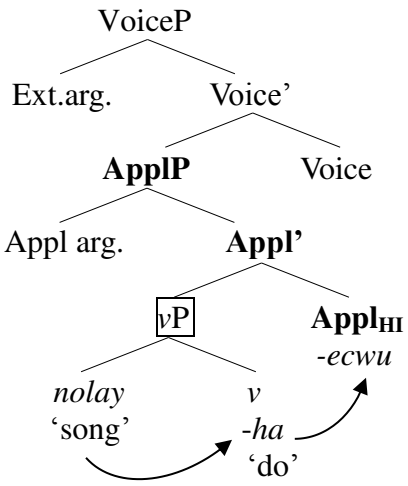
(ii) Yenghi-ka Chelswu-eykey **pica-lul** **yoli.ha**-ecwu-ess-ta.
Yenghi-Nom Chelswu-Dat **pizza-Acc** **cooking/dish.do**-APPL-Past-Comp
'Yenghi cooked a pizza for Chelswu.'

[8] Not all incorporated objects verbalized by *-ha* are compatible with Appl *-ecwu*. Unergatives like *kongpwu-ha* 'study$_n$-do', *wuntong-ha* 'workout-do' cannot be used in the applicative construction in Korean. This naturally connects to the property of *-ecwu* as a possessor-introducer as we will see in sections 6-7. For now, it suffices to note that the unergatives in (19) do appear with Appl *-ecwu*.

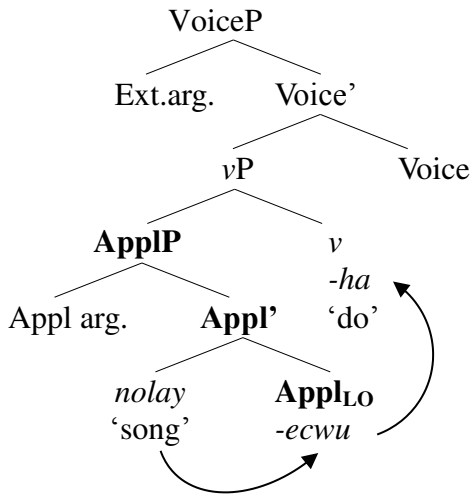
[9] McGinnis (2001; 2002), however, argues that the structural position of the applicative affix is not correlated with its morphological position. See Jung (2013a; b), where I question the validity of this claim based on locative applicative in Bantu. Also, resorting to morphological reordering to keep the low Appl analysis of *-ecwu* as in (23) does not seem to be tenable. Because of the incorporated object, the relative order between *-ecwu* and *-ha* cannot be adjusted. Only the order between the lower complex *nolay-ecwu* and *-ha* in (23) are subject to such reordering, if there is any.

[10] Unlike the structure (18), the verbal root layer is missing in (23), since the verbs in (19) are denominal. The prediction about the morpheme order in (23) does not hinge on the absence of the root layer.

(22) High Appl *-ecwu*: ✓



(23) Low Appl *-ecwu*: ✖



Another piece of evidence that distinguishes the Korean high applicative from its English counterpart is the kind of transitive roots that can be associated with *-ecwu*. As Shibatani (1994) and Kim & Tomioka (2013), among others, observe, transitive verbs that are not creation verbs can co-occur with the applicative in Korean:

(24) a. Na-nun Hanako-eykey mwun-ul yel-ecwu-ess-ta.
I-Top Hanako-Dat door-Acc open$_{vt}$-APPL-Past-Comp
'I opened the door for Hanako.' (Shibatani 1994: 43, glossing mine)

b. Yumi-ka Hana-eykey chayksang-ul takk-acwu-ess-ta.
Yumi-Nom Hana-Dat desk-Acc clean-APPL-Past-Comp
'Yumi cleaned the desk to Hana.' (Kim & Tomioka 2013: 5, glossing adapted)

(25) a. *Heidi opened Jasper the door.
b. *John cleaned Mary the desk.

The grammaticality of (24) demonstrates that applicative formation involving Korean *-ecwu* is a productive process, unlike in English. In other words, Korean Appl

realized by *-ecwu* is located above the (idiosyncratic) first verbalizing layer, rather than below it. As a matter of fact, it will further be shown in section 6 that Korean Appl *-ecwu* does not freely appear with any $v\text{P}_{\text{DO}}$ complement. For the moment, however, it suffices to draw two interim conclusions. First, English lacks a productive high applicative of the Korean type. Second, the dative argument of the Appl *-ecwu* is added after the *v*P level is formed as in (17), rather than directly selecting for the Theme argument, as in (18).

3.1.2. Incompatibility with $v\text{P}_{\text{BECOME/BE}}$

Since the Korean high applicative is proposed to select for a $v\text{P}_{\text{DO}}$ complement, one prediction is that Appl *-ecwu* cannot co-occur with stative or change-of-state (i.e., unaccusative) predicates. This prediction is confirmed (26)-(28) ((28) was previously discussed in chapter 2):

(26) a. Chelswu-ka kipu-ess-ta.
Chelswu-Nom be.happy-Past-Comp
'Chelswu was happy.'

b. *Chelswu-ka **Yenghi-eyekey** kipu-**ecwu**-ess-ta.
Chelswu-Nom **Yenghi-Dat** happy-**APPL**-Past-Comp
'Chelswu was happy for Yenghi.'

(27) a. Tori-ka yeppu-ess-ta.
Tori-Nom be.pretty-Past-Comp
'Tori was pretty.'

b. *Tori-ka **namca chinkwu-eykey** yeppu**-ecwu**-ess-ta.
Tori-Nom **male friend-Dat** be.pretty**-APPL-**Past-Comp
*'Tori was pretty for (her) boyfriend.'

(28) a. Sinha-ka cwuk-ess-ta.
courtier-Nom die-Past-Comp
'The courtier died.'

b. *Sinha-ka **wang-eykey** cwuk**-ecwu**-ess-ta.
courtier-Nom **king-Dat** die-**APPL**-Past-Comp
'The courtier died for the king.'

The contrasts between the (a-b) pairs reveal that *-ecwu* cannot appear above a psychological predicate (26), a stative predicate (27), or a change-of-state unaccusative verb (28) to introduce a dative argument. This finding accords with the structure in (9), where Appl selects for $v\text{P}_{\text{DO}}$. That is, Appl *-ecwu* is only compatible with actions/causations.

3.2. Korean little *v -ecwu*

3.2.1. The parallels between v's and optional -ecwu

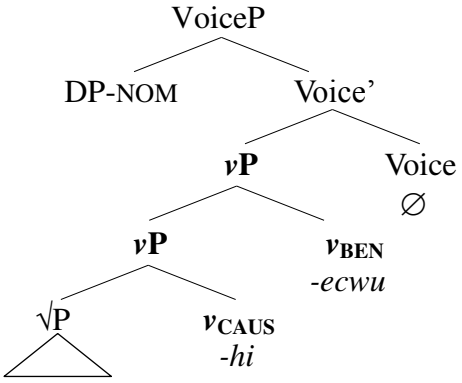
The inability of the optional *-ecwu* to take its own argument resembles that of the verbalizing *v* in the system of Cuervo (2003) and Harley (2013a), which I adopt in this dissertation. In their theory, a basic verb phrase is decomposed into three layers – a category-neutral √P, a verbalizing *v*P, and a VoiceP. Here the *v*P layer does not host an external argument, but VoiceP does.

The attested *v* heads and the optional *-ecwu* share two other properties. First, just as the little *v* layers specify the semantics of *be/do/become/cause*, *-ecwu* adds the benefactive interpretation. Second, as we will see in section 4, their syntactic distributions overlap entirely. That is, the optional *-ecwu* can appear wherever the little *v* head appears, if the interpretive conditions are met (see section 3.2.3. for details). Given

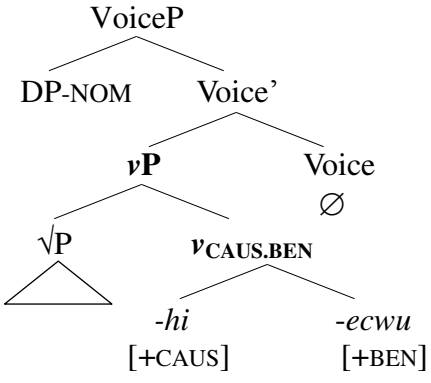
the parallel behaviors of *v*'s and the optional *-ecwu*, it is reasonable to conclude that the two share the syntactic head *v* and that the optionality of *-ecwu* results from its secondary semantic contribution, compared to that of *do/become/cause*.

At this point, an alternative account is worth considering. Recall that the current analysis of *-ecwu* in (10) implements the fission operation (Halle 1997, Noyer 1997). Alternatively, one could hypothesize that the little *v -ecwu* forms a separate projection above the first verbalizing causative head, as in (29), to represent the structure of (6) (Carnie p.c.):

(29) **Alternative**



(30) **Current analysis of (6)**



The structure in (29) treats *-ecwu* as a little *v*, just like the present analysis. (29) thus predicts the inability of *-ecwu* in (6) to introduce its own argument as well as other parallels with the eventive verbalizers. However, by selecting for the first verbalizing layer, *-ecwu* becomes the second verbalizer in the structure in (29). The verbalizing head marks the eventuality, by hypothesis. Consequently, (29) represents two events by

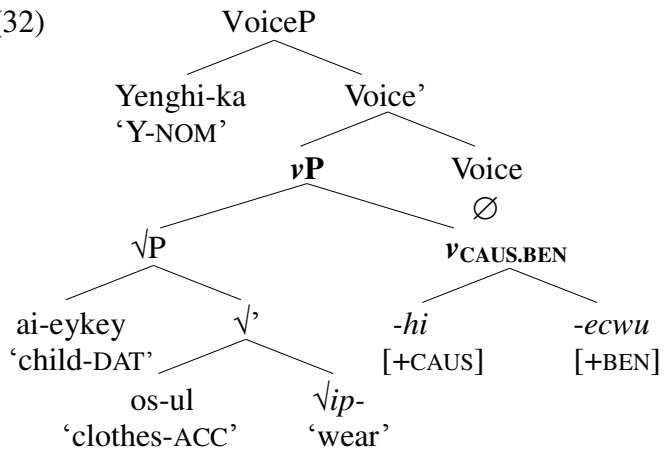
containing two separate verbalizers.[11] However, the sentence in (6) with an optional *-ecwu* involves a single event with the additional benefactive semantics.[12] Thus, the overall structure is expected to contain one little *v*, as in (30). It follows that the separation of v_{CAUS} and v_{BEN} should take place from the single *v* head via fission.

3.2.2. Internal dative argument

In this subsection, I present the motivation for analyzing the dative argument in (6)/(10) as root-internal. The relevant example and its structure are repeated below in (31) and (32). (31)-(32) involve the split little *v* (i.e., optional) *-ecwu*, not the Appl *-ecwu*. That is, the dative argument in (31) has its place in syntax regardless of the presence of *-ecwu*.

(31) Yenghi-ka ai-eykey os-ul ip-hi-(**ecwu**)-ess-ta.
Yenghi-Nom child-Dat clothes-Acc wear-*v*LEX.CAUS-(***v*BEN**)-Past-Comp
'Yenghi dressed the child (for the child's benefit).'

(32)



[11] Section 6 of chapter 2 and section 1 of chapter 4 discuss a construction for which postulating two hierarchically consecutive verbalizing phrases as in (29) is motivated. Pyalkkänen's (2002; 2008) verb-selecting causatives illustrate this case.

[12] Recall from fn. 1, where I show that the Appl *-ecwu* cannot appear with two time adverbials to demonstrate that it involves a single event. The same applies to the optional *-ecwu* cases.

In her syntactic decomposition analysis of Korean causatives, Son (2006, chapters 2 and 3) classifies two groups of transitive roots that accept lexical causativization – agentive (e.g., *ilk-* 'read') and non-agentive (e.g., *ip-* 'wear') roots. According to Son (2006: 89-96), roots like *ip-* are ambiguous between a stative 'wear' and an eventive 'put on' reading, when they do not have a lexical causative suffix attached to them. By manipulating the adverbials, Son (2006) picks out each of the two interpretations:

(33) a. Ai-ka ecey say paci-lul **halwucongil** ip-ess-ta.
child-Nom yesterday new pants-Acc **all day** wear-Past-Comp
'The child wore the new pants all day.'
*'The child put on the new pants all day.'

b. Ai-ka ecey say paci-lul **himtulkey** ip-ess-ta.
child-Nom yesterday new pants-Acc **with difficulty** put.on-Past-Comp
'The child put on the new pants in a difficult manner.'
*'The child wore the new pants in a difficult manner.'

With the durational adverb *halwucongil* 'all day', (33a) invokes a stative reading, where the pants are located on the child or the child has the pants on.[13] (33b), with a manner adverb *himtulkey* 'with difficulty', describes the child's action of putting on the pants.

Crucially, when *ip-* is lexically causativized, the dative argument behaves as a Goal, not as an Agent:

[13] Son (2006) considers the dative argument in (33a) as a Location that the Theme ends up at. Given that the dative argument is animate, one can also think of it as a Possessor (Harley 2002). There have been proposals, however, that the dative argument in Korean ditransitives exhibit some syntactic properties more suitable to a Location (Jung & Miyagawa 2004, Kim 2008). Section 4.1 briefly introduces them. In this chapter, I call it "Goal" as a supercategory, without making any claim as to whether it should be treated as a Location or Possessor.

(34) Yenghi-ka ai-eykey os-ul ip-**hi**-ess-ta.
Yenghi -Nom child-Dat clothes-Acc wear-**LEX.CAUS**-Past-Comp
'Yenghi dressed the child.'
*'Yenghi made the child put on the clothes.'

For a reading where the dative argument performs an action as an Agent (i.e., external argument), the root *ip-* needs to be embedded in a syntactic causative structure (Shibatani 1973b):[14]

(35) Yenghi-ka ai-eykey os-ul ip-**keyha**-ess-ta.
Yenghi-Nom child-Dat clothes-Acc put.on-**SYN.CAUS**-Past-Comp
'Yenghi made the child put on the clothes.'

Besides the interpretive difference between (34) and (35), independent reasons lead us to treat the Goal in (34) as a root-internal argument. First, lexical causative heads such as *-hi* are known to be root-adjacent (Pylkkänen 2002; 2008 chapter 2, Harley 2008b, Miyagawa 2011) – that is, it is the first verbalizer.[15] Second, the arguments of stative predicates are not external, but internal arguments (Harley 1995; 2002). Finally, based on the scope facts, Kim (2008) demonstrates that Korean ditransitives involving the DAT-ACC case frame exhibit a hierarchical structure where the dative Goal asymmetrically c-commands the accusative Theme. Taken together, I propose that the dative Goal *ai* 'child' is located in Spec-√P, as in (32).[16] As I will show in section 5, the root-internality of the

[14] Only the dative Causee in (35), but not that in (34), passes both the agent-oriented participials and binding diagnostics, which I argue to be diagnostics for Voice (see section 2.2 of chapter 4).
[15] Additional arguments that lexical causatives are the first verbalizers are provided in chapter 2 and section 2.2.1 of chapter 4. Notice also that by proposing that the dative Goal is root-internal, I depart from Son (2006), where the Goal is introduced in spec-vP$_{\text{APPL}}$.
[16] Kyumin Kim (p.c.) notes that the √P in (32) fails in the constituency tests. Her point is correct, since the two √Ps under the same lexical causative head cannot be conjoined:

Goal argument yields interesting interpretive effects which group together ditransitives (e.g., *ponay-* 'send') and lexical causatives of non-agentive transitives (e.g., *ip-* 'wear), while distinguishing them from agentive transitives (e.g., *ilk-* 'read').

3.2.3. Eventiveness restrictions

Let us consider the co-occurrence restrictions that optional *-ecwu* is subject to. The acceptability of (36) shows that the little *v -ecwu* can appear with change-of-state predicates as long as it is semantically plausible. Optional *-ecwu*, therefore, differs from Appl *-ecwu* in this respect, whose complement is required to be vP_{DO}.

(36) a. Sinha-ka cwuk-(ecwu)-ess-ta.
courtier-Nom die-(v_{BEN})-Past-Comp
'The courtier died (for someone).'

b. Ku namca-nun coyonghi salaci-(ecwu)-ess-ta.
I-Top quietly disappear-(v_{BEN})-Past-Comp
'The man disappeared quietly (for someone).'

However, optional *-ecwu* is not compatible with stative predicates, just as Appl *-ecwu* is not.

(i) *Yenghi-ka [cakun ai-eykey paci-lul ip]-ko [khun ai-eykey
Yenghi-Nom younger child-Dat pants-Acc wear-conj elder child-Dat

chima-lul ip]-**hi-**ess-ta.
skirt-Acc wear-**LEX.CAUS**-Past-Comp
Intended: 'Yenghi dressed the younger child in pants and the elder child in a skirt.'

I speculate, however, the ungrammaticality of (i) does not necessarily demonstrate that elements of the √P do not form a constituent. Instead, it shows that conjoining category-neutral root phrases is impossible. This is expected from the current set of assumptions. (i) is ruled out for the same reason **the [organiza- and constitut]-tion of a new plan* is.

(37) a. Chelswu-ka kipu-(*ecwu)-ess-ta.
Chelswu-Nom happy-(v_{BEN})-Past-Comp
'Chelswu was happy (for someone).'

b. Tori-ka yeppu-(*ecwu)-ess-ta.
Tori-Nom be.pretty-(v_{BEN})-Past-Comp
'Tori was pretty (for someone).'

I speculate that the contrast in (36)-(37) arises because being in a state cannot benefit another entity, but undergoing a change-of-state can. It appears that the unaccusative event associated with the v_{BEN} *-ecwu* is coerced to be interpreted as an agentive and volitional action. This coercion is similar to the possibility to connect a purposive clause to unaccusatives like *die*, yielding a "quasi-agentive" reading (Van Valin & Wilkins 1996: 312-313). To conclude, optional *v -ecwu* can appear in any eventive *v*P, as long as it is semantically felicitous.

4. The Distribution of *-ecwu*

The present analysis that *-ecwu* occupies either high applicative or split little *v* head makes a strong prediction about its distribution. Since Korean high applicative takes a vP_{DO} complement, it is expected to appear only with roots that take up to one internal argument. This is in contrast to the co-*v* *-ecwu*, which can be realized wherever an eventive verbalizer can appear. It is thus predicted that the instances of *-ecwu* that are outside the proposed syntactic distributions of Appl must correspond to the co-*v* head.[17] In particular, they should not introduce a new dative argument, and must be omissible.

[17] The dative argument introduced by Appl *-ecwu* can be omitted, due to the *pro*-drop property of Korean. Such omission must be licensed by an appropriate discourse context, however.

4.1. Ditransitive roots and affixal *-ecwu*

This subsection is divided into two parts. I first provide a basis for claiming that ditransitive verbs take two root-internal arguments, just like the lexical causative of non-agentive transitives (e.g., *ip-* 'wear') in section 3.2.2. This then predicts that ditransitives can co-occur with optional *-ecwu*, but not applicative *-ecwu*, since the latter appears only with $v\mathrm{P}_{\mathrm{DO}}$ complements. I show that the predictions of the current analysis are borne out – *-ecwu* that can be associated with ditransitive roots is the little *v*, not the argument-introducing Appl.

4.1.1. The Goal and Theme of ditransitive roots as internal arguments

I assume that ditransitive roots such as *ponay-* 'send', or *tenci-* 'throw' generate two arguments – a Goal and a Theme – below the root, in addition to the external subject, following Harley (2002), Beck & Johnson (2004), and many others. Although I do not aim to provide a comprehensive account of ditransitives in this dissertation, it is worth mentioning that Korean double object constructions and their postpositional counterparts bring in some complications to the typology of ditransitive verbs (Jung & Miyagawa 2004, Kim 2008). The bottom line of the discussion in this subsection is that the dative Goal of Korean ditransitive verbs is located root-internally, c-commanding the lower Theme, irrespective of the former's nature. This is essentially identical to the structure of the lexical causative of the non-agentive root *ip-* in (32).

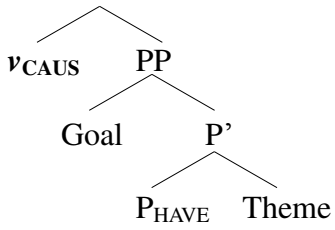
Harley (2002) proposes two distinct structures for double object constructions and their prepositional dative counterparts in (38). This conclusion is drawn from ample evidence such as the semantic contrasts between (38a) and (38b) – animacy restrictions

(McCawley 1974, Green 1974, Oehrle 1976), and the possessive semantics (Benveniste 1966, Freeze 1992, Kayne 1993, Guéron 1995) – as well as idioms (Larson 1990, Richards 2001), and binding facts.

(38) a. Mary sent **John/*Philadelphia** a letter. [Double object construction]
b. Mary sent a letter **to John/Philadelphia**. [Prepositional dative]

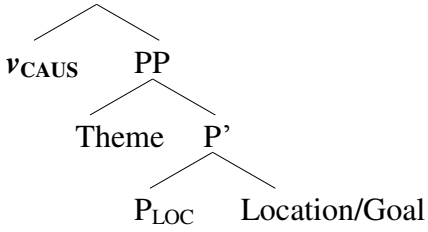
Harley (2002) proposes the structures of the double object and prepositional dative constructions as in (39). Both contain a small clause headed by an abstract P element, with the difference in the hierarchical positions of the Goal/Location and Theme:[18]

(39) a.



[Double object construction]

b.



[Prepositional dative]

Notice that in both structures in (39), both the Goal/Location and Theme are introduced to the structure before the constituent they form together (i.e., PP) is verbalized by the little *v*.

Advocating Harley's (2002) approach to ditransitive verbs, Jung & Miyagawa (2004) propose that Korean ditransitive verbs such as *ponay-* 'send' exhibit properties of English prepositional datives in (38b), rather than their double object alternants in (38a). One of

[18] Recall that (39a) is equivalent to Pylkkänen's (2002; 2008) low applicative structure (cf. (18)). For Pylkkänen, P_{HAVE} is the event head $Appl_{LO}$.

their arguments is the fact that the dative Goal position in (40) does not induce the semantic effects that the Goal in a typical double object construction does – for instance, animacy restrictions as in (38a) in English.[19]

(40) Mary-ka **John-eykey/Busan-ey** pyenci-lul ponay-ess-ta.
Mary-Nom **John-Dat/Busan-Loc** letter-Acc send-Past-Comp.
'Mary sent a letter to John/Busan.'

They argue that only a couple of Korean ditransitives (e.g., main verb *cwu-* 'give', *kaluchi-* 'teach') can appear in true double object constructions equivalent to the English (38a). In Korean, these verbs can take an ACC-ACC case frame for the Goal-Theme arguments, in addition to the DAT-ACC frame like (40). They argue that we get the expected semantic effect of double object constructions only with the ACC-ACC case frame. Jung & Miyagawa (2004) conclude that the double object construction (containing P_{HAVE}/Low Appl) can only be formed with the ACC-ACC frame, while the latter DAT-ACC sequence belongs to the prepositional dative structure. Therefore, the ditransitive roots with which the ACC Goal-ACC Theme pattern is not available – for instance, *ponay-* 'send' in (40) – are postpositional datives with P_{LOC}, according to Jung & Miyagawa (2004).

If Jung & Miyagawa (2004) are on the right track, an interesting complication is raised about the syntactic structure of (40) (and (34)). This is because, based on the scope interpretations of quantified Goal and Theme, Kim (2008) shows that the underlying order of Korean DAT-ACC ditransitives is one where the dative Goal c-commands the

[19] See Jung & Miyagawa (2004) for their other arguments, which are omitted here.

accusative Theme. Combining the results of Jung & Miyagawa (2004) and Kim (2008), Korean DAT-ACC ditransitives involve both of the structures in (39a) and (39b), in that the Goal is located higher than the Theme, and the relationship between the two is mediated by a P_{LOC}-like head. In this dissertation, I do not attempt to identify the functional head that links the Goal and the Theme argument, or even whether it is necessary to postulate one. I simply mark the structural order between the two, as in (10)/(32). This itself poses an interesting puzzle about the typology of ditransitives. (See Miyagawa & Tsujioka (2004), building on Marantz (1993), and Kishimoto (2008) for a similar case in Japanese with respect to low and high Goals.) What matters for now is that in either (39a) or (39b), the Goal argument in Korean is introduced before the maximal projection it belongs to is verbalized by v_{CAUS}. This means that the Goal, as well as, the Theme, is an internal argument of ditransitive roots.

4.1.2. -ecwu and ditransitive roots

Let us now return to test the predictions of the present analysis of *-ecwu*. We have just seen that Korean DAT-ACC ditransitive roots take two internal – Goal and Theme – arguments, forming a small clause. The rootP that embeds the two then is selected for by a v_{CAUS}, not a v_{DO}. Recall that v_{CAUS} takes a clausal complement, while v_{DO} takes a rootP containing (up to) one internal DP argument in Korean. It follows that the Appl *-ecwu* is not expected to appear with DAT-ACC ditransitive roots, whereas the little *v -ecwu* can. This is indeed the case:

(41) a. Mary-ka John-eykey pyenci-lul ponay-(**ecwu**)-ess-ta.
Mary-Nom John-Dat letter-Acc send-($v_{\mathbf{BEN}}$)-Past-Comp.
'Mary sent a letter to John (for John's benefit).'

b. Mary-ka John-eykey kong-lul tenci-(**ecwu**)-ess-ta.
Mary-Nom John-Dat ball-Acc throw-($v_{\mathbf{BEN}}$)-Past-Comp.
'Mary threw a ball to John (for John's benefit).'

(42) a. *Mary-ka **Chelswu-eykey** John-eykey pyenci-lul ponay-**ecwu**-ess-ta.
Mary-Nom **Chelswu-Dat** John-Dat letter-Acc send-**APPL**-Past-Comp.
Intended: 'Mary sent a letter to John for Chelswu's benefit.'

b. *Mary-ka **Chelswu-eykey** John-eykey kong-lul tenci-**ecwu**-ess-ta.
Mary-Nom **Chelswu-Dat** John-Dat ball-Acc throw-**APPL**-Past-Comp.
Intended: 'Mary threw a ball to John for Chelswu's benefit.'

In (41), the associated *-ecwu* is optional and does not introduce an argument. (42) is ungrammatical, where a separate argument is added, testing the possibility that *-ecwu* is an Appl head. Observe that the way the ditransitive roots interact with *-ecwu* is analogous to the behavior of lexical causatives of non-agentive transitive roots (e.g., *ip-hi* 'wear-LEX.CAUS') with *-ecwu* in (6) and (8).

4.2. Interaction with the syntactic causative

The interaction between *-ecwu* and the syntactic causative suffix *-keyha* is consistent with the present analysis. Recall from chapter 2 that a Korean sentence like (43) is ungrammatical, where the argument-introducing *-ecwu* takes scope over the syntactic causative suffix. The reverse order, however, is completely natural in (44). This contrast was taken to show that *-keyha* is Voice-selecting, while the Appl *-ecwu* is *v*P-selecting.

(43) *Emma-ka **tongsayng-eykey** Mary-eykey ppang-ul
mother-Nom **brother-Dat** Mary-Dat bread-Acc

kwup-keyha**-ecwu**-ess-ta.
bake-CAUS**-APPL**-Past-Comp
Intended: 'Mother, for brother, made [Mary bake bread].'

(44) Emma-ka Mary-eykey **tongsayng-eykey** ppang-ul
mother-Nom Mary-Dat **brother-Dat** bread-Acc

kwuw-**ecwu-**keyha-ess-ta.
bake-**APPL-**CAUS-Past-Comp
'Mother made [Mary bake bread for brother].'

What about the little *v -ecwu*? *-Ecwu* can follow the syntactic causative, only if it does not introduce a new argument. In this case, the causative is interpreted as a permissive one:

(45) Emma-ka Mary-eykey ppang-ul kwup-**keyha-(ecwu)**-ess-ta.
mother-Nom Mary-Dat bread-Acc bake-***v*SYN.CAUS-(*v*BEN)**-Pst-Comp
'Mother make/(let) Mary bake bread.'

The patterns in (43)-(45) accord with the proposed properties of Appl and little *v -ecwu*. When *-ecwu* occupies the applicative head, its distribution is very limited – it is only allowed between vP_{DO} and VoiceP. In contrast, the little *v -ecwu* can occur, wherever an eventive *v* can appear, adding the benefactive interpretation.

One might question at this point whether the addition of a new dative argument by *-ecwu* in (8), (42), and (43) above is prohibited due to a restriction on the number of arguments, instead of being regulated by the syntactic properties of Appl and *v*. For example, it could be that Korean does not tolerate three non-subject arguments. A

consideration of (46)-(47) shows that this cannot be the explanation:[20]

(46) a. Yenghi-ka aitul-eykey nol-**keyha-**(**ecwu**)-ess-ta.
Yenghi-Nom children-Dat play-**SYN.CAUS-(*v*BEN**)-Past-Comp
'Yenghi make/(let) the children play.'

b. Yenghi-ka aitul-eykey wul-**keyha**-(**ecwu**)-ess-ta.
Yenghi-Nom children-Dat cry-**SYN.CAUS**-(***v*BEN**)-Past-Comp
'Yenghi make/(let) the children cry.'

(47) a. *Yenghi-ka **John-eykey** aitul-eykey nol-**keyha-ecwu**-ess-ta.
Yenghi-Nom **John-Dat** children-Dat play-**SYN.CAUS-APPL**-Past-C
Intended: 'Yenghi made the children play for John.'

b. *Yenghi-ka **John-eykey** aitul-eykey wul-**keyha-ecwu**-ess-ta.
Yenghi-Nom **John-Dat** children -Dat cry-**SYN.CAUS-APPL**-Past-C
Intended: 'Yenghi made the children cry for John.'

If the above alternative hypothesis were correct, intransitive roots such as *nol-* 'play' and *wul-* 'cry' would be expected to allow a new dative argument in (47), contrary to the fact. Only optional little *v -ecwu* is allowed after the syntactic causative head. This verifies that the matter of introducing a dative argument by *-ecwu* is determined strictly by the selection of the functional heads.

5. Little *v -ecwu* – The Scope of the Benefactive Semantics

In this section, I discuss the consequences of the inability of little *v -ecwu* to introduce its own syntactic argument. In particular, I focus on the entity that the benefactive action is directed to. An immediate result for the structures containing the little *v -ecwu* is that it

[20] The acceptability of (44) also disproves this possibility.

simply delivers a sense that the action/causation takes place to benefit someone. For instance, given a context, a sentence like (6), repeated as (48), can be interpreted as 'Yenghi dressed the child for/on behalf of someone else', besides the reported interpretation, which does not require contextual support:

(48) Yenghi-ka ai-eykey os-ul ip-hi-(**ecwu**)-ess-ta.
Yenghi-Nom child-Dat clothes-Acc wear-LEX.CAUS-($v_{\mathbf{BEN}}$)-Past-Comp
'Yenghi dressed the child (for the child's benefit).'

When the dative argument is inanimate, it forces the reading that the verbal event is intended for an unmentioned person:

(49) Mary-ka **kokwuma-ey** twikim.os-ul
Mary-Nom **sweet potatoe-Dat/Loc** frying.clothes-Acc

ip-hi-(**ecwu**)-ess-ta.
wear-LEX.CAUS**-**($v_{\mathbf{BEN}}$)**-**Past-Comp
'Mary applied the batter to the sweet potatoes (for someone).'

The interpretations in (48)-(49) are expected if *-ecwu* is assumed not to be linked to a particular syntactic argument, as proposed in (10) (See Shibatani 1994; 1996, Kim & Tomioka 2013 for alternative accounts). This is in contrast to (50), previously (2), where the dative argument is introduced by the Appl *-ecwu*. The action of baking bread must be carried out targeting the child:[21]

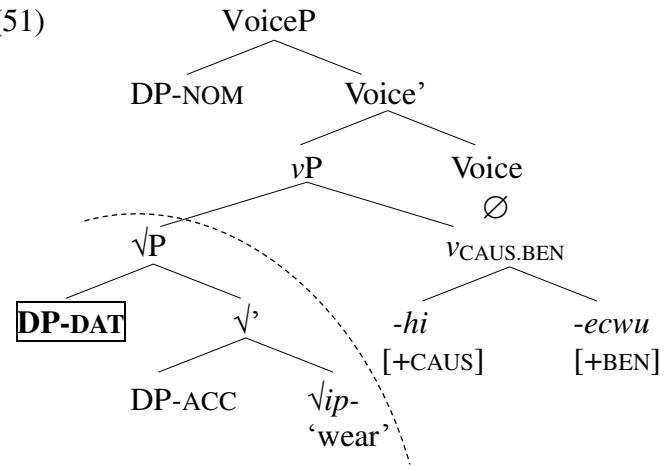
[21] A question about (50) is whether there can be a third party that benefits from the action. Possibly so, but there is a reason to think that such an entity is not a syntactic "argument" that *-ecwu* is responsible for introducing (section 6.3).

(50) Yenghi-ka **ai-eykey** ppang-ul kwuw-**ecwu**-ess-ta.
Yenghi-Nom **child-Dat** bread-Acc bake-**APPL**-Past-Comp
'Yenghi baked bread for the child.'

Let us now consider whether the little *v -ecwu* has any form of restriction, when an argument that is already present is understood to benefit from the event. Comparing the non-agentive and agentive roots under a lexical causative suffix leads to an interesting contrast. This contrast was originally observed by Kim (1998), but an analysis of their structural distinction was left as an open question.

Specifically, with non-agentive roots *ip-* 'wear' in (48), when the dative argument *ai-eykey* is the Goal of the benefactive event, it is located within the domain of the little *v -ecwu*, as in (51). That is, *ai-eykey* is inside the complement of *v*.

(51)



<*Embedded transitive root is non-agentive*>

As was discussed in chapter 2, section 4.2.1, in Korean some agentive transitive roots

(e.g., *ilk-* 'read') can also be lexically causativized as in (52a).[22] In (52a), the dative argument is the reader who performs the action of reading, but the argument is not fully agentive to the extent that it is introduced by Voice (see chapter 2, section 4.2.1 and chapter 4, sections 1-2 for syntactic evidence, cf. Kim 2011 a; b). (52a) has a strong implication that that Yenghi is actively involved in the child's reading – maybe holding the child or the book, or pointing at the letters as the reading goes on. For the sake of comparison, let us compare (52a) with its syntactic causative counterpart (52b). (52b) implies there are two separate events – the causing one and the reading one. Here Yenghi could have given an order to the child to read a book on his own when she is not around. (See Shibatani 1973a; 1973b, Shibatani & Chung 2002 for more discussion.)

(52) a. Yenghi-ka ai-eykey chak-ul **ilk**-hi-ess-ta
Yenghi-Nom child-Dat book-Acc **read**-LEX.CAUS-Past-Comp
'Yenghi made the child read a book.'

(Yenghi and the child belong to a single event.)

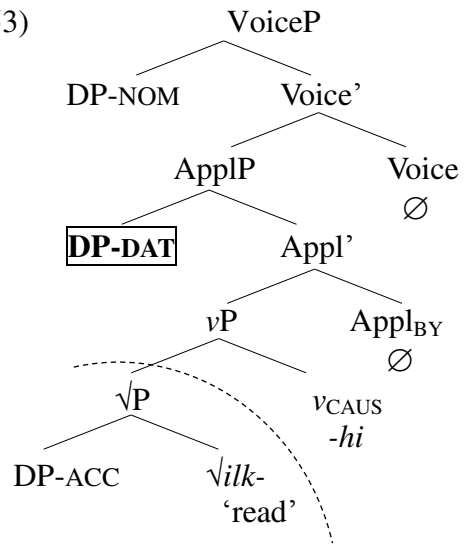
b. Yenghi-ka ai-eykey chak-ul **ilk**-key.ha-ess-ta
Yenghi-Nom child-Dat book-Acc **read**-SYN.CAUS-Past-Comp
'Yenghi made the child read a book.'

(Yenghi and the child belong to separate events.)

In chapter 2, I argued that the dative argument in (52a) is introduced by a high applicative head – high Appl_{BY} with a null spell-out – as in (53), partially adopting Kim (2011a; b).

[22] See section 2.2 of chapter 4 for a list of such transitive roots.

(53)



<*Embedded transitive root is agentive*>

Relevant for the present purposes is that the dative argument in (51) and (53) occupy different syntactic positions. Unlike (51), the dative argument in (53) is located outside the *v*P. Interestingly, *ilk-* 'read' cannot be lexically causativized and be embedded under little *v -ecwu* at the same time, as in (54):[23]

(54) Yenghi-ka ai-eykey chak-ul **ilk**-hi-(*e**cwu**)-ess-ta
Yenghi-Nom child-Dat book-Acc **read**-LEX.CAUS-(*$\boldsymbol{v}_{\mathbf{BEN}}$)-Past-Comp
Intended: 'Yenghi made the child read a book (for the child).'

The different grammaticality of (48) and (54) suggests that for an existing argument to be interpreted as the one who benefits from the event, it must be within the domain of little *v -ecwu*. In other words, the relevant argument must by c-commanded by *-ecwu*. The

[23] Of course, the agentive transitive root can appear with Appl *-ecwu* that licenses the dative argument:

(i) Yenghi-ka ai-eykey chak-ul **ilk**-*(**ecwu**)-ess-ta
Yenghi-Nom child-Dat book-Acc **read**-*(**APPL**)-Past-Comp
'Yenghi read a book for the child/read the child a book.'

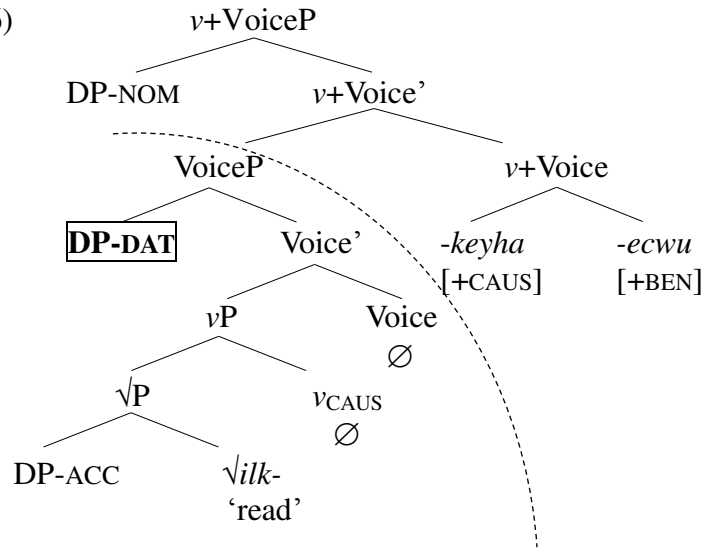
present analysis provides a structural account of the contrast of (48) and (54).

Observe also that the syntactic causative counterpart of (54) is completely acceptable – with either the 'let' causative or 'made it possible for DP-DAT to …' reading.

(55) Yenghi-ka ai-eykey chak-ul ilk-keyha-(ecwu)-ess-ta
Yenghi-Nom child-Dat book-Acc read-SYN.CAUS-(v_{BEN})-Past-Comp
'Yenghi made (let) the child read a book.'

This is precisely what is expected under this proposal. The syntactic causative is the second verbalizer bundled with and selects for a VoiceP (chapter 2). It follows that *-keyha* and *-ecwu* together select for the inner VoiceP, which introduces the dative Causee. In this case, the dative Agent-Causee is c-commanded by *-ecwu*.[24]

(56)



6. The Nature of the Introduced Argument

In this section, I probe into the nature of the dative argument introduced by Appl *-ecwu*.

[24] In section 3 of chapter 4, I present an elaborated analysis of Korean syntactic causative construction. The revised structure, however, does not affect the present conclusion about the relationship between little *v -ecwu* and the dative Causee in (56).

Shibatani (1994) and Kim & Tomioka (2013) concentrate on the usage of *-ecwu* within a single event and carefully examine the varying acceptability depending on the particular verbs which compose with *-ecwu*. They treat *-ecwu* uniformly, in contrast to the present account, in which it realizes two distinct heads – Appl and v_{BEN}.[25] I adopt the core idea of Shibatani (1994; 1996) and Kim & Tomioka (2013) that the argument of Appl *-ecwu* is in fact a Possessor. However, I offer an update on the possession relation between the added Possessor and the *v*P complement (section 6.1.1). I then present two new arguments in support of the Possessor analysis of the dative argument (sections 6.1.2 and 6.1.3). I further argue that there is no position in syntax for a separate implicit Beneficiary. I reconnect the absence of an implicit Beneficiary to the current disjunctive analysis of *-ecwu* as an Appl head in some cases and little *v* in others (section 6.2).

6.1. High applicative argument as Possessor

6.1.1. Restrictions on the associated vP_{DO}

Shibatani (1994) puts forth a unified treatment of the various behaviors of *-ecwu* (and its Japanese counterpart). One of his major concerns is the contrast in (57)-(58). (57)-(58) are structurally identical but differ in grammaticality:[26]

(57) Na-nun Hanako-eykey mwun-ul yel-ecwu-ess-ta.
I-Top Hanako-Dat door-Acc $open_{vt}$-APPL-Past-Comp
'I opened the door for Hanako.'

[25] Shibatani (1994) and Kim & Tomioka (2013) also address *-yaru* and *-ageru*, respectively, which are the Japanese counterparts of *-ecwu*. It is plausible that the current analysis can be carried over to Japanese *-yaru/-ageru*. In Shibatani's (1996) later work, which examines a broader range of languages, no Korean data is discussed. His central proposal, however, directly applies to *-ecwu*.

[26] I keep the notational difference – APPL and v_{BEN} – to mark the respective argument-introduction ability and the optionality.

(58) ???Na-nun Hanako-eykey mwun-ul tat-acwu-ess-ta.
I-Top Hanako-Dat door-Acc close$_{vt}$-APPL-Past-Comp
Intended: 'I closed the door for Hanako.' (Shibatani 1994: 43, glossing mine)

Additionally, Shibatani (1994) notes that some intransitive sentences like (59) are not acceptable.[27] The intransitive roots in (59) differ from that in (60), previously in (19), which takes an incorporated object.

(59) a. *Na-nun Hanako-eykey sicang-ey ka-ecwu-ess-ta.
I-Top Hanako-Dat market-to go-APPL-Past-Comp
Intended: 'I went to the market for Hanako.'
(Shibatani 1994: 43, glossing mine)

b. *Yenghi-ka Chelswu-eykey ttwi-ecwu-ess-ta.
Yenghi-Nom Chelswu-Dat run-APPL-Past-Comp
Intended: 'Yenghi ran for Chelswu.'

(60) Yenghi-ka Chelswu-eykey nolay.ha-ecwu-ess-ta.
Yenghi-Nom Chelswu-Dat song.do-APPL-Past-Comp
'Yenghi sang for Chelswu.'

Since the roots in (58) and (59) are activity verbs of v_{DO} type, they pose a problem for the current analysis, where the Appl head *-ecwu* is argued to take a vP_{DO} complement and is selected for by Voice.[28] If one were to retain the present analysis, further investigation is necessary on the nature of the Appl head *-ecwu* and the dative "Beneficiary" argument it introduces to the structure.

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[27] You (1997), Song (2010), and Kim & Tomioka (2013) make similar observations.

[28] It is true that motion verbs in (59) in Korean may be unaccusative (i.e., v_{BECOME}), rather than unergatives (i.e., v_{DO}) (see Harley *to appear* for evidence that Hiaki motion verbs exhibiting root suppletion are unaccusatives). I have discussed in chapter 2 that unaccusatives are incompatible with high Appl in both Hiaki (Harley et al. 2009) and Korean. However, languages differ in whether particular motion verbs are unergative or unaccusative. In addition, the degraded acceptability in (58) is still not accounted for under the analysis that Appl takes vP_{DO}.

Shibatani (1994; 1996) proposes a cognitive account that combines a structural schema of the benefactive construction with the construability of the scene. In this system, the well-formedness of a sentence containing the benefactive *-ecwu* depends on whether it satisfies the structural (61a) and semantic (61b) requirements of the schema.

(61) the 'give' schema[29] (Shibatani 1996: 173)

a. *Structure:* [NP_1 NP_2 NP_3 GIVE]
NP_1 = subject
NP_2 = dative indirect object
NP_3 = direct object

b. *Semantics:* NP_1 causes NP_2 to have NP_3
NP_1 = human agent, NP_2 = human goal, NP_3 = object theme
NP_2 exercises potential possessive control over NP_3.
NP_1 exercises the possessive situation on behalf of NP_2.

According to Shibatani (1994; 1996), (62), repeated from (2)/(50), receives a straightforward explanation. (62) implies that the dative "Beneficiary" ends up possessing the Theme created by the Agent subject.[30]

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[29] NP2 and NP3 may correspond to primary and secondary objects, respectively, considering the two objects in other languages (e.g., Bantu languages, Hiaki, Bahasa Indonesia, Javanese), whose NP2 is a structural object.

[30] Korean employs a postposition *-taysin* 'instead' in place of the dative marker to express the meaning 'on behalf of' (See Song 2010 for discussion). In (i), there exists a separate intended Possessor. The adjunct marked with *-taysin* thus naturally co-occurs with the optional *-ecwu*, as in (ii), just like the PP marked by *-wihay* 'for'. As expected, the ill-formed (58)-(59), incurred by using *-ecwu* as the Appl head, are rescued in (ii). Notably, the presence of the adjunct PPs is not dependent on the presence of the little *v -ecwu*.

(i) Yenghi-ka (ai-taysin) Tori-eykey ppang-ul kwuw-ecwu-ess-ta.
Yenghi-Nom (child-instead of) Tori-Dat bread-Acc bake-APPL-Past-Comp
'Yenghi baked Tory bread (on behalf of the child).'

(ii) Na-nun (Hanako-taysin/-lul-wihay) sicang-ey ka-(ecwu)-ess-ta.
I-Top (Hanako-instead of/-Acc-for) market-to go-(v_{BEN})-Past-Comp
'I went to the market (on behalf of/for Hanako).'

(62) Yenghi-ka ai-eykey ppang-ul kwuw-**ecwu**-ess-ta.
Yenghi-Nom child-Dat bread-Acc bake-**APPL**-Past-Comp
'Yenghi baked bread for the child.'

In Shibatani's system, (57) and (60) are acceptable because they are construable within the 'give' schema. In particular, the dative Beneficiary in (57) and (60) is metonymically understood to be a Possessor, rather than literally possessing 'the door' (57) or 'the song' (60). In the case of (58)-(59), on the other hand, the event of 'closing the door' or the intransitive event of 'going to the market' does not create a construal where the dative argument possesses the product of the performed action. This explanation still leaves a question of the different grammaticality of (57)-(58). Shibatani (1994) points out that in the door-opening activity in (57) more readily activates a metonymic construal such that the dative argument comes by a passage to enter, while in (58) it is not clear what is created by closing the door that the dative argument gets to possess.

Kim & Tomioka (2013) offers a formal, event-semantic analysis of *-ecwu* (and Japanese *-ageru*), building on Shibatani (1994; 1996). They further observe from (63) that what is possessed by the dative Possessor is a pragmatically implied entity resulting from the eventuality. What Hana gets to possess in (63) is some clean space.

(63) Yumi-ka Hana-eykey chayksang-ul takk-acwu-ess-ta.
Yumi-Nom Hana-Dat desk-Acc clean-APPL-Pst-Dec
'Yumi cleaned the desk to Hana.' (Kim & Tomioka 2013: 5, glossing adapted)

I adopt Shibatani (1994; 1996) and Kim & Tomioka (2013) in positing that the dative

argument introduced is a Possessor. However, I slightly modify the specifics of the possession relation between the added Possessor and the *v*P complement that the Appl head mediates. In particular, I propose that what is possessed is neither the Theme DP itself, be it literal or metonymic (Shibatani 1994; 1996), nor the pragmatically implied entity that derives from the performed action (Kim & Tomioka 2013). Instead, it is the Theme DP which is modified by the action denoted by the lexical root. As a result, the 'baked bread' in (62), 'opened door' in (57), 'cleaned desk' in (63) are accessible to the introduced Possessor. In turn, the Possessor does not literally 'have', but it exerts a possessive control, as Shibatani (1994; 1996) puts it, over the root-modified Theme. Ultimately then, what is abstract is not the product of the verbal action that sometimes can be structurally irrelevant (e.g., 'clean space' as a result of 'cleaning the desk'), but the way the root-modified Theme (e.g., 'cleaned desk') is possessed. Consequently, when there is no (root-modified) Theme (i.e., pure unergatives) as in (59), or when the root-modified Theme cannot be potentially utilized (e.g., 'the closed door') as in (58), the sentence is significantly degraded. If the Appl suffix *-ecwu* yields an interpretation that the Possessor has a pragmatically implied entity created from the verbal action (cf. Kim & Tomioka 2013), it seems hard to avoid predicting grammaticality in (58), since one could postulate a context where the action of closing the door creates, for example, a 'warm room temperature' for the Possessor to have.

The fact that (64) is natural with *tat-* 'close$_{vt}$', the same root as used in the unacceptable (58), is consistent with this proposal. In (64) the 'closed lid of jam jar' is at Hanako's disposal after the verbal event.

(64) Na-nun Hanako-eykey cam ttwukkeng-ul **tat**-acwu-ess-ta.
I-Top Hanako-Dat jam lid-Acc **close**-APPL-Past-Comp
'I closed the lid of a jam jar for Hanako.'

(65)-(66) further illustrate this point. In (65), Yenghi is given a 'delayed deadline' or 'solved math question'.[31] In contrast, (66) incurs a reading where Yenghi is given 'trash that is thrown away' or 'new clothes worn (by Chelswu)', which are not available for Yenghi to make use of.

(65) a. Pyencipcang-i Yenghi-eykey makam-ul milwu-ecwu-ess-ta.
editor-Nom Yenghi-Dat deadline-Acc delay-APPL-Past-Comp
'The editor delayed the deadline for Yenghi.'

b. Chelswu-ka Yenghi-eykey swuhak mwuncey-lul
Chelswu-Nom Yenghi-Dat math question-Acc

phwul-ecwu-ess-ta.
solve-APPL-Past-Comp
'Chelswu solved the math question for Yenghi.'

[31] Song (2010: 408) argues that the well-formedness is determined by the possibility for the introduced dative argument to "engage with the Theme", rather than exerting possessive control over the Theme in Shibatani's sense. The basis for this claim comes from an example like (i), where the possession relation is already established, inalienably, between the dative argument and the Theme:

(i) Yenghi-ka Kiho-eykey meli-lul kkak-acwu-ess-ta.
Yenghi-Nom Kiho-Dat hair-Acc cut-APPL-Past-Comp
'Yenghi cut (Kiho's) hair for Kiho.' (Song 2010: 407)

Song's (2010) observation can be accommodated under the current proposal for two reasons. First, under the current proposal, when the verbal root has lexical content, as in (i), it is not the Theme DP (i.e., the hair), but the root-modified Theme (i.e., the cut hair) that is at issue. Thus, the relationship that is created between *Kiho* and *the cut hair* is a 'stage-level' possession. Second, the "possessive control" as used here is an abstract notion that the dative argument is deemed to own or potentially make use of the root-modified Theme. This is coherent with the notion of "engaging" that Song (2010) proposes.

(66) a. ???Chelswu-ka Yenghi-eykey ssuleki-lul peli-ecwu-ess-ta.
Chelswu-Nom Yenghi-Dat trash-Acc throw.away-APPL-Past-Comp
Intended: 'Chelswu threw away the trash for Yenghi.'
(adapted from Shibatani 1994: 43)

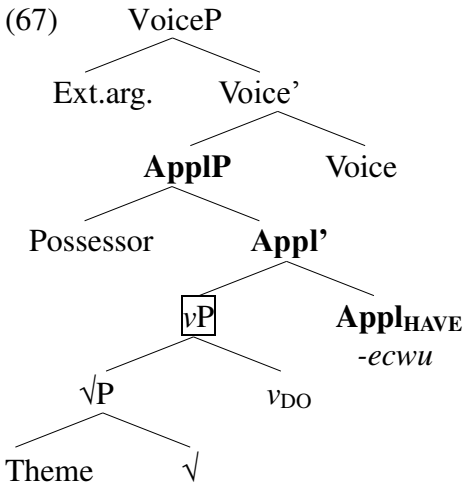
b. ???Chelswu-ka Yenghi-eykey say os-ul ip-ecwu-ess-ta.
Chelswu-Nom Yenghi-Dat new clothes-Acc wear-APPL-Past-Comp
Intended: 'Chelswu wore new clothes for Yenghi.'

The discussion so far motivates a treatment of the Appl head *-ecwu* as denoting an abstract possession.[32] This function of *-ecwu* reminds one of the possession head P_{HAVE} (Harley 1995; 2002), whose origin goes back to Benveniste (1966), Freeze (1992), Kayne (1993), and Guéron (1995). The difference is its locus in syntax. While the P_{HAVE} in the original versions is posited below the verbalizing head (section 4.1.1) as in (68), *-ecwu* is added above the verbalizing layer as in (67).[33]

[32] The hypothesis that the *-ecwu* is a stative Appl head raises a question of whether it exemplifies Kratzer's (2001) "target state". However, the Korean applicative data discussed here are not felicitous with 'still'. The infelicity can be due to the presence of the active VoiceP above ApplP or to the fact that $Appl_{HAVE}$ is associated with a resultant state.

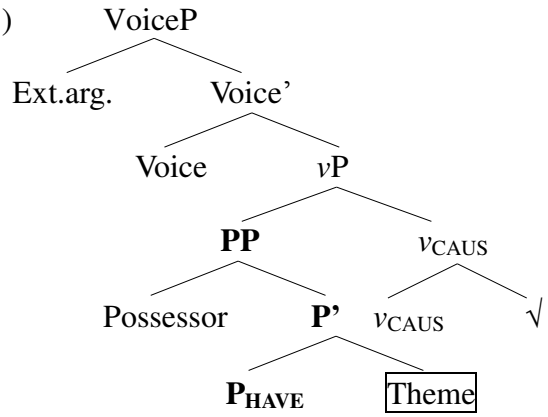
[33] (68) is a modified structure of Harley (2002; 2008a) into a three-layered verb phrase to compare with (67). (68) also depicts that the root portion is manner-adjoined to the *v* head, as is proposed in the version of Harley (2008a).

(67)



<*high possession head in Korean*>

(68)



<*low possession head in English*>

Concluding this section, let us briefly consider the consequence of treating the Korean Appl head as on par with P_{HAVE}, the abstract possessive head. As pointed out above, the Possessor of $Appl_{HAVE}$ acquires a possessive control (Shibatani 1994; 1996) over the root-modified Theme (e.g., the opened door, the delayed deadline, etc.).[34] In contrast, in the case of English double object constructions in (69), the Possessor possesses the Theme itself, not the Theme modified by the lexical root. Consequently, the equivalents of (57) and (65) in English are ruled out.

(69) a. *Heidi **opened** Jasper the door.
b. *The editor **delayed** Art the deadline.
c. *Andrew **solved** Simin a math question.

[34] Of course, with unergatives with an incorporated object as in (19), which do not involve a verbal root (see the structure in (22)), it is the incorporated object that enters into a possession relation with the applied argument of *-ecwu*. This implies that the light verb *-ha* 'do' needs to be further categorized into a 'do' category, describing an activity (e.g., *wuntong-ha* 'workout-do'), and a 'make' category (e.g., *yoli-ha* 'dish-make', *nolay-ha* 'song-make'), associated with creation of the incorporated object. Only the latter, creation light verb is allowed with possessive Appl *-ecwu*. Note that the morphological evidence shown in section 3.1.1 demonstrates that Appl *-ecwu* appearing with unergatives is added to the derivation after the verbalizing layer, distinguishing itself from the English low variant. See fn. 35 also.

The kinds of roots that are allowed in the structure (68) are very limited in English. The root either has to be ditransitive, or a transitive verb of creation, whose lexical content corresponds to the manner by which the causation takes place (e.g., *bake*, *knit*, *build*, *write*, etc.) (Levin 1993, see also Tungseth 2006 for Norwegian).

(70) a. Colin **gave** Megan a book.
b. The editor **wrote** Greg a letter.
c. Alex **knitted** Jessamyn a sweater.

Thus, (69a) is ungrammatical because its structure forces the interpretation that the door comes into Jasper's possession by Heidi's opening it. Note that the contrast between the English (69) and their perfectly grammatical Korean counterparts in (57) and (65) challenges any hypothesis that connects the Korean *-ecwu* to a low Appl/P_{HAVE} head.[35]

The diverging grammaticality between (69) and (57)/(65) is also predicted by Pylkkänen's (2002; 2008) typology of high and low applicatives, discussed in section 3.1.1. This is because according to Pylkkänen's diagnostic, Korean *-ecwu* is high applicative, while English double object construction contains a low applicative. What Pylkkänen's applicative typology cannot address is the behavior of *-ecwu* as a possession head. Since Pylkkänen predicts high applicative to compose with any unergative/transitive *v*P, the unacceptability that results from composing with certain

[35] Tungseth's (2006, chapter 3) treatment of German creation verbs (e.g., *bake*, *build*) may raise this question. Tungseth (2006) categorizes German benefactives in two types. With creation verbs, the Appl equivalent is introduced low in the structure, whereas with transitive non-creation verbs, it is located high. In addition to the contrast in (69) and their grammatical Korean counterparts, morphological considerations in Korean rule out this possibility, as discussed in section 3.1.1. The fact that Appl *-ecwu* can be attached to either creation or non-creation verbs motivates a unified treatment of *-ecwu* as a high Appl. At least in Korean, there does not seem to be a reason to analyze the *-ecwu* that appears with creation verbs as a low Appl/P_{HAVE} and the one that appears with non-creation verbs as a high Appl.

vP$_{DO}$ complements, as demonstrated by Shibatani (1994; 1996) and Kim & Tomioka (2013) among others, is left unexplained. This problem of overgeneration in Pylkkänen's system is due to her characterization of Appl that it is an "event" head. In section 6.1.3, I provide evidence for the non-eventive property of Korean Appl$_{HAVE}$ *-ecwu*.

6.1.2. High Beneficiary vs. High Possessor

Further supporting the analysis that the argument of *-ecwu* is a Possessor is the cross-linguistic variation in the behaviors of high applicative arguments. The high Possessor argument in Korean contrasts with the true Beneficiary argument that is introduced by the high applicative affix in languages like Hiaki, Chichewa (chapter 2), Luganda, and Chaga (Pylkkänen 2002; 2008).

The high benefactive applicative of these languages appears with the kind of vP$_{DO}$ complements Korean Appl *-ecwu* takes. Particularly, they are compatible with unergatives with an incorporated object and/or transitive roots which do not denote a manner of giving (i.e., verbs of non-creation).[36]

(71) a. Santos Maria-ta kari-te-ria. [*Hiaki*]
Santos Maria-Acc house-do-APPL
'Santos is building a house for Maria.' (Harley 2013a: 43)

b. Ne Maria-ta pueta-ta etapo-ria-k.
I Mary-Acc door-Acc open-APPL-Perf
'I opened Mary the door.' (Guerrero 2004: 134, glossing mine)

[36] I was not able to find denominal unergative verbs in Chichewa. However, Chichewa Appl can co-occur with pure intransitive unergatives as well as non-creation transitives, demonstrating its status as a high Appl.

(72) Chibwe a-na-ses-er-a nyumba Joza [*Chicheŵa*]
Chibwe subj-past-clean-APPL-fv house Joza
'Chibwe cleaned the house for Joza.'

In addition, a true Beneficiary argument occurs with intransitive roots and does not exhibit a strict compatibility restriction between the transitive *v*P complement and the added applicative layer (Harley et al. 2009, Dedrick & Casad 1999, Simango 1995; 2004, Alsina & Mchombo 1993, Dubinsky & Simango 1996, Pylkkänen 2002; 2008).[37] None of the Korean equivalents of (73)-(76) are natural or grammatical.

(73) a. Nee Lioh-ta-u enchim bwan-ria. [*Hiaki*]
I God-Acc-to you:PL cry-APPL
'I pray to God for you.' (Dedrick & Casad 1999: 343)

b. Goyo Aleh-ta Tucson-neu noiti-ria-k.
Goyo Aleh-Acc Tucson-to $visit_{vi}$-APPL-Perf
'Goyo made a visit to Tucson for (= on behalf of) Aleh.'

c. Inepo Hose-ta pueta-ta eta-ria-k.
Isg Jose-Acc door-Acc close-APPL-perf
'I closed the door for Jose.' (Harley et al. 2009: 43)

(74) a. Chilembwe a-na-f-er-a dziko lake [*Chicheŵa*]
Chilembwe subj-past-die-APPL-fv country his
'Chilembwe died for his country.' (Simango 1995: 31)

b. Joza a-na-pit-ir-a mnyamata ku msika
Joza subj-past-go-APPL-fv boy to market
'Joza went to the market for the boy.'

[37] Notice the difference in accepting the co-occurrence of the benefactive applicative suffix and unaccusative verbs, however. The Chicheŵa high applicative *-ir/-er* can freely occur with any intransitive verbs, including unaccusatives, whereas Hiaki *-ria* does not allow unaccusatives under the benefactive applicative *-ria*.

c. Joza a-na-thamang-ir-a Chibwe.
Joza subj-Past-run-APPL-fv Chibwe
'Joza ran for Chibwe.'

d. Chibwe a-na-yendets-er-a Naphiri galimoto.
Chibwa subj-past-drive-APPL-fv Naphiri car
'Chibwe drove the car for Naphiri.' (Dubinsky & Simango 1996: 768)

(75) Mukasa ya-tambu-le-dde Katonga. [*Luganda*]
Mukasa 3sg.past-walk-APPL-past Katonga
'Mukasa walked for Katonga.' (Pylkkänen 2008:20)

(76) a. N-a-i-zric-i-a mbuya. [*Chaga*]
Foc-1sg-pres-run-APPL-fv 9-friend
'He is running for a friend.'

b. N-a-i-lyi-i-a m-ka k-elya.
Foc-1sg-pres-eat-APPL-fv 1-wife 7-food
'He is eating food for his wife.' (Bresnan & Moshi 1990: 149-150)

The more flexible distribution of high applicative heads in Hiaki and Chicheŵa (as well as Luganda and Chaga) strongly suggests that the kind of applied argument that they introduce is different from the argument of Appl *-ecwu* in Korean.

6.1.3. Depictive secondary modification

Depictive modification facts play a significant part in Pylkkänen's (2002; 2008) event-semantics structure of applicatives. Building on Geuder's (2000) semantics for depictives, Pylkkänen proposes that a depictive phrase is adjoined to syntactic levels that are of the type <e, <s, t>> – that is, those with an event argument and an unsaturated argument of type e. Although in Pylkkänen's system the low applicative is also an event head,

denoting a transfer-of-possession, its Appl' level is not <e, <s, t>>, but <e, <<e, st>, <s,t>>>.[38] Therefore, the type of low Appl' is "too complex a predicate" for a depictive to attach to (Pylkkänen 2008: 27). Hence, the eligible attachment sites are the intermediate projections of Voice, transitive verb, and high applicative head. Her framework correctly explains the depictive modification patterns in English as in (77):

(77) a. John ate the meat$_i$ raw$_i$.
b. John$_i$ wrote this letter drunk$_i$.
c. John$_i$ told Mary$_j$ the news drunk$_{i/*j}$. (Pylkkänen 2008: 22)

In (77), only the arguments of Voice and a transitive verb allow depictive modification, but not the indirect object in a double object construction. This is because the applicative English possesses is low, but not high.

The set of assumptions taken in Pylkkänen (2002; 2008) make a typological prediction. If a language has a depictive system that is parallel to that of English, and simultaneously has high applicative, the applied argument should allow depictive modification. Pylkkänen (2002; 2008) confirms this prediction with the high applied Beneficiary in Luganda:

(78) a. Mustafa ya-ko-le-dde **Katonga** **nga mulwadde**.
Mustafa 3sg.Past-work-APPL-Past **Katonga** **sick**
'Mustafa worked for Katonga while Katonga was sick.'

[38] Larson (2010) points out that Pylkkänen's semantic formula, by severing the low applied argument from the verbal event, undesirably leads (i, a) to entail (i, b):
(i) a. John wrote that letter and Bill gave Mary that letter.
b. John wrote Mary that letter. (Larson 2010: 702)

b. Mukasa ya-ko-le-dde **Katonga** **nga akooye**.
Mukasa 3sg.Past-work-APPL-Past **Katonga** **tired**
'Mukasa worked for Katonga while Katonga was tired.' (Pylkkänen 2008: 31)

In (78), Katonga, the Beneficiary argument introduced by the high applicative head *-le*, can be modified by depictives.

Pylkkänen demonstrates that Japanese possesses an English-like depictive system as well. Japanese depictives in the form of nominal-*de* (e.g., *hadaka-de* 'naked') manifest consistent behaviors like those of English in that they can depictively modify (i) subject, (ii) direct object, but not (iii) an implicit external argument, (iv) a DP embedded under PP, or (v) an indirect object.[39] While there is disagreement over whether Korean stative predicates suffixed with the resultative marker *-key* can serve as a secondary depictive (Jang 1997, den Dikken & Shim 2007) or not (Cormack & Smith 1999, Shibagaki 2011), Cormack & Smith's (1999) claim that Korean lacks depictives entirely is not true. Korean has the depictive marking *-ulo* 'as/with' equivalent to Japanese **-***de*. *-Ulo* attaches to a nominal to describe the state of an argument, while the verbal event takes place (Ko 2011, Shibagaki 2011):

(79) a. Chelswu$_i$-ka **al.mom-ulo$_i$** ppang-ul kwuw-ess-ta.
Chelswu-Nom **bare.body-as** bread-Acc bake-Past-Comp
'Cheslwu baked bread naked.' [*subject depictive*]

[39] Pylkkänen uses Japanese depictives to test what she argues to be low applied arguments, overlooking that Japanese has high applied arguments – namely, the Possessor introduced by *-ageru*/*-yaru* (Shibatani 1994; 1996, Kim & Tomioka 2013). The Possessor argument in the *-ageru*/*-yaru* benefactive cannot be modified by depictives (Onishi p.c). As I show below, the same is true with the Possessor introduced by Korean *-ecwu.*

b. Chelswu-ka sayngsen$_i$-ul **sayng/nal kes-ulo$_i$** mek-ess-ta.
Chelswu-Nom fish-Acc **rawness/raw thing-as** eat-Past-Comp
'Cheslwu ate the fish raw.' [*DO depictive*]

c. *Ppang-i **al.mom-ulo$_i$** kwuw-eci-ess-ta.
bread-Nom **bare.body-as** bake-pass-Past-Comp
'*The bread was baked naked.' [**implicit external argument*]

d. Chelswu$_i$-ka kyengchal$_k$-apheyse **al.mom-ulo$_{i/*k}$** cosa-lul pat-ass-ta.
Chelswu-Nom police-in front of **bare.body-as** exam-Acc receive-Pst-C
'Cheslwu received an examination naked in front of the police.' [**DP under PP*]

c. Chelswu$_i$-ka haksayng$_k$-eykey/-ul **yangbok.chalim-ulo$_{i/*k}$**
Chelswu-Nom student-Dat/-Acc **suit.dressing-as**

yenge-lul kaluchi-ess-ta.
English-Accteach-Past-Comp
'Chelswu taught (his) student English dressed in suit.' [**indirect object*]

Korean thus meets the two conditions to test Pylkkänen's prediction about depictive attachments – (i) Korean depictives in (79) exhibit the same modification patterns as English (and Japanese); (ii) Korean *-ecwu* is a high, not low, applicative. If the high applicative *-ecwu* was an event head, as Pylkkänen is led to conclude, the argument it introduces should accept depictive modification. This prediction, however, is not borne out:

(80) a. Na$_i$-nun Hanako$_k$-eykey al.mom-ulo$_{i/*k}$ mwun-ul yel-ecwu-ess-ta.
I-Top Hanako-Dat bare.body-as door-Acc open$_{vt}$-APPL-Past-Comp
'I opened the door naked for Hanako.'
*'I opened the door for Hanako, while Hanako being naked.'

b. Yenghi$_i$-ka Chelswu$_k$-eykey hanbok.chalim-ulo$_{i/*k}$
Yenghi-Nom Chelswu-Dat hanbok.dressing-as

nolay.ha-ecwu-ess-ta.
song.do-APPL-Pst-C
'Yenghi sang for Chelswu in hanbok (traditional Korean attire).'
*'Yenghi sang for Chelswu, while Chelswu dressed in hanbok.'

c. Yenghi$_i$-ka ai$_k$-eykey panpaci.chalim-ulo$_{i/*k}$ ppang-ul
Yenghi-Nom child-Dat shorts.dressing-as bread-Acc

kwuw-ecwu-ess-ta.
bake-APPL-Past-Comp
'Yenghi baked bread dressed in shorts for the child.'
*'Yenghi baked the child bread, while the child dressed in shorts.'

Dative marking is often considered as an adposition. According to this line of thinking, the Possessor in (80) is a PP, rather than a DP. Since secondary predicates can only modify a DP (Landau 2010), one might wonder whether the failure of the depictive to depict the Possessor in (80) is attributed to the dative marking. However, (81) illustrates that the morphological dative case cannot be why the depictive modification is impossible:

(81) Yenghi-ka Chelswu$_i$-eykey hanbok.chalim-ulo$_i$ nolay.ha-key.ha-ess-ta.
Yenghi-Nom Chelswu-Dat hanbok.dressing-as song.do-SYN.CAUS-T-C
'Yenghi made [Chelswu sing in hanbok].'

(81) is a syntactic causative construction which contrasts with the applicative construction in (80b). Here, the Agent-Causee is dative case marked, just like the dative Possessor in (80b), but can be modified by the depictive.

Two points follow from this. First, the dative marker in Korean is a sort of Case

marking, rather than a postposition. The ability of the dative Causee in syntactic causatives to bind an anaphor (chapter 2) is another piece of evidence. See Kim (1990) for additional arguments against treating the dative marker as a postposition. Second, more important at present is that the dative argument of *-ecwu* resists depictive modification not because of case/Case. This leaves us with one explanation.[40] The applicative head that introduces the Possessor is not eventive, but it rather denotes a state – a possession relation mediated by $\text{Appl}_{\text{HAVE}}$, in particular.

Corroborating this conclusion is the fact that other kinds of stative predicates show parallel behaviors with regard to depictive modification.

(82) a. *Chelswu-eykey al.mom-ulo cip-i iss-∅-ta.
Cheslwu-Dat bare.body-as house-Nom be-Pres-Comp
*'Chelswu has a house naked.'

b. *Yenghi-eykey al.mom-ulo paym-i mwusep-∅-ta.
Yenghi-Dat bare.body-as snakes-Nom be.fearful-Pres-Comp
*'Yenghi is fearful of snakes naked.'

The similar modification properties are a natural consequence under the present proposal, where the dative argument introduced by *-ecwu* is a Possessor, just like the Possessor argument of a stative 'be' verb (82a) or the Possessor of emotion in (82b).

6.2. No implicit Beneficiary argument

In this section, I demonstrate that constructions involving *-ecwu* do not contain a syntactic position for a separate Beneficiary, as the hypothesized argument does not

[40] This conclusion is valid as long as the adjunct analysis of depictives is correct.

qualify as an implicit argument. The argument here is two-fold. First, I show that the only argument that Appl *-ecwu* introduces is the overt Possessor argument. Second, sentences with optional little *v -ecwu* do not involve an implicit argument, despite the benefactive semantics that it brings in.

The proposals that unify the *-ecwu* suffix (Shibatani 1994, Kim & Tomioka 2013) assume an implicit Beneficiary argument *in addition to* the dative Possessor.[41] This postulation of a covert Beneficiary allows them to unify what the present analysis distinguishes as Appl *-ecwu* and little *v -ecwu*. Recall that the optional *v -ecwu* never introduces an argument, while Appl *-ecwu* hosts a Possessor of the root-modified Theme in the current analysis.

According to Shibatani (1994; 1996), the inability of the optional, little *v -ecwu* to introduce its own argument is a byproduct of the grammaticalization process. *-Ecwu* is underdoing grammaticalization from a main verb 'give' to an auxiliary. A corollary is that it exhibits both the canonical property of the main verb 'give' (i.e., introduction of an overt argument), and an innovative property as an auxiliary (i.e., no argument overtly associated with it). While this may provide a speculation on the disjunctive behaviors of *-ecwu*, this does not guarantee that the "implicit Beneficiary" is syntactically present.

Kim & Tomioka (2013) posit a separate Ben head, hosting the implicit Beneficiary, above the Poss (i.e., high Appl) head. Between the two syntactic heads, it is under the Ben head where *-ecwu* is located, which appears without Poss in the optional *-ecwu* cases.

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[41] To be precise, in Shibatani's framework, it is the indirect object slot in the functional structure, with no syntactic coding. He treats the covert Beneficiary like an understood *pro*, given the *pro*-drop property of Japanese/Korean.

By linking the suffix *-ecwu* to the Ben head, a unified account of *-ecwu* is achieved. The basis of this proposal is the observation that while the dative argument is a Possessor in a sentence like (83), the action of setting the table could be intended to benefit someone else – for example, the child's mother, who needs to go to work early in the morning.[42] Shibatani (1994) had made a similar point, citing Lee (1973).

(83) Yenghi-ka **ai-eykey** achim.pap-ul chali-**ecwu**-ess-ta.
Yenghi-Nom **child-Dat** morning.meal-Acc prepare-**APPL**-Past-Comp
'Yenghi prepared breakfast for the child.'

Let us now consider whether a syntactic position needs to be saved for a separate Beneficiary argument, as proposed in Shibatani (1994; 1996) and Kim & Tomioka (2013). Let us first hypothesize that the putative implicit argument exists in the form of a PP as in (84), where the benefactive action is carried out for the child's mother.

(84) Yenghi-ka (emma-lul-wihay) **ai-eykey** achim.pap-ul
Yenghi-Nom (mother-Acc-for) **child-Dat** morning.meal-Acc

chali-**ecwu**-ess-ta.
set-**APPL**-Past-Comp
'Yenghi prepared breakfast for the child (for mother).'

However, *-ecwu* is not responsible for introducing *emma* 'mother' in (84), because the PP containing *emma* is an adjunct. That is, the PP containing *emma* can appear irrespective of *-ecwu*:

[42] Additionally, the fact that the implicit Beneficiary can be bound by a universal quantifier that is the sentential subject also contributes to their postulation of a separate Beneficiary position. It seems that while a nominal inside an adjunct can be bound, the binding does not guarantee that that nominal is an argument (e.g., *Every girl wants to buy a new car* (*for herself/John*)).

(85) Yenghi-ka (emma-lul-wihay) achim.pap-ul chali-ess-ta.
Yenghi-Nom (mother-Acc-for) morning.meal-Acc prepare-Past-Comp
'Yenghi prepared breakfast (for mother).'

This shows that *-ecwu* in (84) is not responsible for introducing the PP.

Since the hypothesized implicit argument is not a PP, we should consider the possibility that it is a DP. This possibility does not seem tenable, since its overt realization incurs ungrammaticality, as in (86).

(86) Yenghi-ka (*emma-eykey) **ai-eykey** achim.pap-ul
Yenghi-Nom (*mother-Dat) **child-Dat** morning.meal-Acc

chali-**ecwu**-ess-ta.
prepare-**APPL**-Past-Comp
'Yenghi prepared breakfast for the child *(for mother).'

This is in opposition to the behavior of other attested implicit arguments such as the *by*-Agent of passives or *pro*, which can be optionally realized.[43]

Because the putative argument must be implicit, one might consider if it is like PRO, and assume that there is some independent reason that it must be suppressed. However, the so-called implicit Beneficiary lacks the inherent property of implicit syntactic arguments – namely, the ability to lead a control clause (Rizzi 1986, Roeper 1987, Bhatt & Pancheva 2006, Landau 2010).[44] The observation that implicit arguments are syntactically active by being able to be a controller is what had sparked the debate on

[43] Of course, there are languages where *by*-Agents in passives can never be realized. Hiaki is one such language (Escalante 1990a, see Chapter 5 also). However, the *by*-Agents in Korean passives are not obligatorily suppressed.

[44] While the ability to control is often used as a test for subjecthood, it is not exclusively reserved for subjects (*John$_1$ bought his friends$_2$ some champagne$_3$* [*PRO$_2$ to take e$_3$ to the party*]) (Whelpton 2001: 88).

whether to set aside a syntactic projection for them at LF. If there exists a syntactic argument in (87) that is linked to the suffix *-ecwu* in addition to the overt Possessor argument, it is predicted that it must exhibit the control property. However, this prediction is not borne out: [45]

(87) Yenghi-ka [PRO$_{i/*j}$ cikakhaci-anh-tolok] ai$_i$-eykey
Yenghi-Nom be late-Neg-to child-Dat

achim.pap-ul chali-ecwu-ess-ta.
morning.meal-Acc prepare-APPL-Past-Comp
'Yenghi prepared breakfast for the child in order for the child not to be late.'
*'Yenghi prepared breakfast for the child in order for someone else not to be late.'

The interpretation of (87) is where the child controls the subordinate clause. (87) is not understood to mean that Yenghi's action was carried out to benefit an unmentioned entity, who otherwise, might be late. This is in contrast to (88)-(91), where the implicit subject of the imperative (88), an understood Goal (89), a *pro*-dropped Possessor of (90) – the real argument of *-ecwu* –, or an arbitrary PRO (91) anteceding a PRO.

(88) Cikakhaci-anh-tolok ilccik ca-kela!
be late-Neg-to early go to bed-Impr
'Go to bed early not to be late!'

(89) Sacangnim-i culkewun hyuka-lul ponay-tolok
boss-Nom amusing vacation-Acc spend-to

[45] Two additional facts about (87): (i) the controlled clause in (87) may also follow the dative argument; (ii) the subject *Yenghi* can control the PRO by adding to the control clause an overt locational phrase like *hoisa-ey* 'work-to', which forces the connection between the two. Even with the additional *hoisa-ey* 'work-to', (87) disallows an implicit Beneficiary (e.g., a busy mother who has an early morning) to antecede PRO.

bonesu-lul cwu-si-ess-ta.
bonus-Acc give-Hon-Past-Comp
'The boss gave a bonus (to me/employees) to enjoy the vacation.'

(90) Yenghi-ka [PRO$_{i/*j}$ cikakhaci-anh-tolok] *pro*$_i$ achim.pap-ul
Yenghi-Nom be late-Neg-to morning.meal-Acc

chali-ecwu-ess-ta.
set-APPL-Past-Comp
'Yenghi prepared breakfast in order for the breakfast-receiver not to be late.'
*'Yenghi prepared breakfast for someone else other than the breakfast-receiver not to be late.'

(91) Ku salam$_i$-un [PRO$_{i/j}$ cikhici-anh]-ul yaksok-ul ha-nun
that person-Top keep-not-Fut.Rel promise-Acc do-Rel

kes-ul sileha-n-ta
thing-Acc hate-Pres-Decl
'That person$_i$ hates making promises that he$_i$/one$_j$ cannot keep.'

(90) is particularly informative in that the argument that controls must be the omitted Possessor argument added by *-ecwu*. The discussion so far leads to a conclusion that the Appl *-ecwu* does not involve an implicit Beneficiary that is independent of the Possessor argument. In other words, there is no syntactic position other than that of the high Possessor that Appl *-ecwu* creates.

The same conclusion is drawn for the optional *v -ecwu* cases. While the little *v -ecwu* imports benefactive semantics, it does not project an argument position for an implicit Beneficiary. Here I use the same arguments that are employed above for the Appl *-ecwu* construction. As a matter of fact, it has already been pointed out that none of the optional little *v -ecwu* cases allows a Beneficiary to be overtly realized. This was one of the motivations for analyzing these instances of *-ecwu* as a little *v* head, as opposed to Appl.

The relevant examples (8), (42)-(43) are repeated below in (92)-(94). (92)-(94) behave in parallel to (86) above.

(92) *Yenghi-ka **Mary-eykey** ai-eykey os-ul
Yenghi-Nom **Mary-Dat** child-Dat clothes-Acc

ip-hi-**ecwu**-ess-ta.
wear-LEX.CAUS-$v_{\mathbf{BEN}}$-Past-Comp
Intended: 'Yenghi dressed the child for Mary's benefit.'

(93) a. *Mary-ka **Chelswu-eykey** John-eykey pyenci-lul
Mary-Nom **Chelswu-Dat** John-Dat letter-Acc

ponay-**ecwu**-ess-ta.
send-$v_{\mathbf{BEN}}$-Past-Comp.
Intended: 'Mary sent a letter to John for Chelswu's benefit.'

b. *Mary-ka **Chelswu-eykey** John-eykey kong-lul
Mary-Nom **Chelswu-Dat** John-Dat ball-Acc

tenci-**ecwu**-ess-ta.
throw-$v_{\mathbf{BEN}}$-Past-Comp.
Intended: 'Mary threw a ball to John for Chelswu's benefit.'

(94) *Emma-ka **tongsayng-eykey** Mary-eykey ppang-ul
mother-Nom **brother-Dat** Mary-Dat bread-Acc

kwup-keyha-**ecwu**-ess-ta.
bake-SYN.CAUS-$v_{\mathbf{BEN}}$-Past-Comp
Intended: 'Mother, for brother, made [Mary bake bread].'

I do not repeat the results of the control test for the the grammatical counterparts of (92)-(94) (i.e., those with the bold dative argument dropped) here. When a purpose clause is adjoined to the grammatical counterparts of (92)-(94), they are not acceptable with a reading where a sentence-external Beneficiary can function as an implicit controller.

Taken together, I conclude that there is no empirical reason to set aside a syntactic

position for an argument that is always obligatorily suppressed and cannot control. This confirms that (9)-(10) are on the right track. As in (9), Appl *-ecwu* introduces one and only argument which is the Possessor of the verbal event, while the little *v -ecwu* serves to introduce a benefactive semantics with no argument-introducing ability as in (10).

7. Applicative Typology Revisited

Based on the discussions we can now formulate a new set of diagnostics to identify the relevant applicative head. It should be noted that the applicatives at issue are limited to those that involve a Goal argument in a broad sense – namely, an argument for which the causation/action takes place. This effectively excludes the kind of Appl denoting Source, Appl_{BY} introducing an Agent (section 4.2, chapter 2), or Appl associated with static verbs (e.g., Spanish *admirar* 'admire'), as discussed in Cuervo (2003).

[Table 3.2] *High vs. Low applicatives*

	High Appl	Low Appl/P_{HAVE}
#1 The verbal root must denote a manner of giving or creating	No	Yes
#2 Appl is compatible with unergatives (i) With an object incorporated to the verbalizer, Or (ii) With a bare unergative root	Yes	No
#3 Appl head is below Voice (i) Is the Appl embedded under the passive Voice head? Or (ii) Is the Appl embedded under the *Voice-selecting* syntactic causative?	Yes	Yes
	Korean, Hiaki, Chicheŵa, etc.	English Norwegian

The questions #1 and #2 in Table 3.2 essentially examine whether the relevant applicative head is productive enough to be added above the verbalizing layer. Because low Appl/P_{HAVE} mediates between the Goal and Theme arguments below *v*, it is only compatible with roots whose lexical content can modify such a relation by denoting a transfer-of-possession or an activity suitable for creating the Theme argument. A positive answer to test #1 thus diagnoses the relevant Appl as a low Appl/P_{HAVE}. By contrast, high Appl is not subject to such a restriction, as it is added to the structure above the *v*P. To put it simply, adding the high Appl is a productive process that takes place after the root is categorized by the first *v*.

Some clarification on test #2 is in order. There is variation within languages whose applicative is compatible with unergative verbs. As shown above, in Korean (19) and a Hiaki example like (71a), the applicative takes unergatives which are formed by an object incorporated to the verbalizer. That is, in these cases, unergative verbs are denominal. For Korean, these denominal verbs (e.g., *yoli-ha* 'cooking/dish-do') are the only type of unergatives that can appear with the applicative. On the contrary, in the Chicheŵa example in (74) and Hiaki (73), unergative verbs whose roots are purely intransitive occur with the benefactive applicative. Importantly, both of the cases in (i)-(ii) of test #2 exemplify applicativization of unergative verbs with high Appl, in contrast to the English-type low applicative/P_{HAVE} (e.g., **Mary sang/cooked John*).

Test #3 is necessary to show that the applicative head is positioned under the head that introduces the external subject. This is because some applicative heads are argued to be present above Voice – for example, the locative applicative head in Bantu (Buell 2005,

Jung 2013a; b). While the fact that low Appl/P_{HAVE} is located below Voice straightforwardly follows (i.e., by testing the passivizibility of ditransitives), applying this criterion to high Appl comes with a little complication. This is because languages differ in whether they allow passive morphology after the high applicative suffix (e.g., Chichewa, Hiaki), or not (e.g., Korean).[46] For the latter group, their Voice-selecting syntactic causative (i.e., the causative predicate immediately above the inner Voice) can be used instead to verify that the applicative head appears below Voice.[47] For instance, the Korean syntactic causative *-keyha* selects for an inner VoiceP. If so, the ordering where the applicative suffix *-ecwu* precedes the syntactic causative suffix *-keyha* shows that the applicative cannot be above the VoiceP embedded under *-keyha* (chapter 2).

Let us now turn to classification within the high applicative heads. As I have shown above high applied arguments can be divided into two types – Beneficiary and Possessor. The criteria to distinguish between the two are listed in Table 3.3.

[46] The Japanese morpheme *-rare* can follow the high applicative *-ageru*. Peculiarly, however, it is the potential/abilititive *-rare*, not the canonical passive *-rare* (Isono p.c). The reason for the illicit sequence *-age-rare* 'give-PASS' seems to be that the more specific VI *-morau* 'receive' blocks *-age-rare* 'give-PASS'. However, there is a reason to conclude that Japanese *-ageru* qualifies under the condition (i) of diagnostic #2. Fukuda (2013) proposes that potential *-rare* is a realization of Voice bundled with root modal. Importantly, the potential and passive *-rare* are in complementary distribution, suggesting that they may occupy the same head.

[47] A caveat is that many Bantu languages such as Chichewa take the syntactic causative inside the applicative head, as we have observed in Chapter 2. Therefore, one needs to make sure that the syntactic causative is Voice-selecting. Fortunately, the passive criterion in (i) is at work in Bantu languages.

[Table 3.3] *Types of high applicative*

	High Beneficiary	High Possessor
#1 Appl head compatible with pure unergative roots	Yes	No
#2 The root-modified Theme must be at the disposal of the applied argument	No	Yes
#3 Depictive modification of applied argument (Condition: The language has English-like depictive system.)	Yes	No
	Hiaki, Chichewa, Luganda	Korean, Japanese

For example, the high Possessor argument in Korean cannot appear with pure unergative roots (e.g., *ttwi-* 'run'). The same is true with Japanese (Shibatani 1994; 1996, Pardeshi 1998, Kim & Tomioka 2013). High Beneficiaries, on the other hand, can be associated with true unergative bases.

Additionally, it is not the case that the high Appl that introduces a Possessor argument takes any transitive $v\mathrm{P}_{\mathrm{DO}}$ complement. The resulting transitive $v\mathrm{P}_{\mathrm{DO}}$ must create a root-modified DP Theme that can be owned by the Possessor or available for use. On the contrary, true Beneficiary should not impose such restrictions on the *v*P it selects for (section 6.1.2).

Finally, the high Possessors do not permit depictive secondary modification, suggesting that they are different from the Luganda and Chichewa high Beneficiary. A caveat on the test #3 is that it does not yield consistent results unless the language exhibits a depictive system that is consistent with that in English (section 6.1.3). Hiaki does not have English-type depictives, therefore cannot be tested in this respect.

8. Optional Little *v* Elsewhere

When *-ecwu* realizes a split little *v* head, it does not serve to introduce a new non-core argument, distinguishing itself from the Appl *-ecwu*. This kind of 'optional' verbal suffix has been reported in the literature. Bahasa Indonesian verbal suffix *-kan*, as a valency-increasing marker, introduces a new argument. In (95), adding the suffix *-kan* to the verb leads to the addition of a new DP *tetangga-ku*. *-Kan* in (95b) functions like a typical (high) applicative:

(95) a. Saja bikin roti. [*Bahasa Indonesia*]
I make bread
'I made bread.'

b. Saja bikin-**kan** **tetangga-ku** roti.
I make-**APPL** **neighbor-my** bread
'I make my neighbors bread.' (Chung 1976: 54, glossing adapted)

c. *Saja bikin tetangga-ku roti.
I make neighbor-my bread
'I make my neighbors bread.' (Chung 1976: 56)

Interestingly, *-kan* is observed in distributions where it does not necessarily serve to add a new argument (Chung 1976, Kaswanti 1995; 1997, Kroeger 2007). These include several ditransitive roots (Class II and III roots in Chung 1976):

(96) a. Laki itu meng-irim-(**kan**) surat kepada wanita itu.
man the trans-send-(**KAN**) letter to woman the
'The man sent a letter to the woman.'

b. Anak laki itu mem-bajar-(**kan**) lima dolar kepada polisi itu.
child male the trans-pay-(**KAN**) five dollar to police the
'The boy paid five dollars to the policeman.' (Chung 1976: 55)

The data in (96) resembles Korean *-ecwu* when appearing with ditransitive roots. We have seen in section 4.1 that *-ecwu* in this environment is always optional. This was because ditransitive roots already take two internal arguments, so they are not compatible with Appl *-ecwu*, which specifically selects for a vP_{DO} complements (i.e., verbs that can take up to one internal argument).[48] It is also note-worthy that the Goal argument in (96) is in the form of a *to*-dative, which is similar to the dative marking on the Korean indirect object. Overall, the existence of optional verbal elements such as *-kan* in (96) and Korean little *v -ecwu* suggests that these verbal suffixes are not "grammatically deviant" (cf. Kaswanti 1995). Rather, they form a natural class which occupies a syntactic head without adding a new participant.

9. Conclusions and Remaining Issues

This chapter has started with a discussion of the disjunctive properties of Korean verbal suffix *-ecwu* with respect to argument introduction. In so doing, I have argued that *-ecwu* can occupy two distinct terminal nodes in syntax; as the Appl head above *v*P, it introduces a Possessor argument, whereas as a split *v* head, it is responsible for marking the benefactive semantics of the verbal event. The applicative head that exclusively introduces a Possessor argument calls for a new classification of high applicative heads – a class that denotes a stative relation in addition to the attested eventive high applicative.

[48] As for the semantic contribution of *-kan*, Kroeger (2007) notes the optional *-kan* has no semantic effect. Hopper & Thompson (1980), however, remarks that *-kan* in general adds the affectedness interpretation.

Finally, I introduced an instance of optional little *v* observed in Bahasa Indonesia. The rest of this section is devoted to presenting some remaining issues and questions that need further exploration.

9.1. Benefactive applicative of unaccusatives

An interesting variation is observable between Hiaki and Chicheŵa. According to the current classification, both languages have a high applicative introducing a genuine Beneficiary argument. Hiaki never allows unaccusative roots to be embedded by the benefactive *-ria* (Harley et al. 2009), whereas Chicheŵa *-ir/-er* can freely take unaccusatives (Simango 1995; 2004). The flexibility of Chicheŵa applicatives might be related to the fact that Chicheŵa lacks an adposition equivalent to 'for'. Therefore, the only way one can express 'Chilembwe died for his country' in the language is to resort to the applicative suffix *-ir/-er*, as in (74a). There are only a few languages, whose benefactive applicatives are reported to be formed out of unaccusatives (Polinsky 2011) – Halkomelem (Gerdts 1988), Lai (Peterson 1999), and Sesotho (Machobane 1989). Interestingly, none of these languages' dictionaries has a lexical entry for the adposition 'for' to mark a Beneficiary of an event.

The question is what the derivation of unaccusative applicatives is like, since such a structure would involve the Theme argument of the unaccusative root located lower than the high Beneficiary. One would then expect the Beneficiary to be attracted to the subject, not the lower Theme. A possibility is that the Beneficiary has an inherent Case and the Theme does not. If so, the Case probing from T will skip the Beneficiary and attract the Theme. However, passives of the applicativized agentive transitives (and unergatives)

show that the Beneficiary argument does participate in A-movement:

(97) **Atsikana** a-na-gul-ir-idw-a mphatso (ndi chitsiru). [*Chichewa*]
2-girls 2s-past-buy-APPL-PASS-fv 9-gift (by 7-fool)
'The girls were bought a gift (by the fool).' (Alsina & Mchombo 1993: 23)

It follows that the applicative of unaccusatives involves an A-movement of the Theme over the higher Beneficiary, which otherwise can be attracted by T. I have to leave open the answer to this question.

9.2. Passivization puzzle

Sentences with *-ecwu* do not undergo passivization. With Appl *-ecwu*, neither the dative Possessor nor the accusative Theme can be passivized, as in (98). The same is true with the optional little *v -ecwu*, as in (99).

(98) a. *Ai-ka ppang-i kwuw-ecwu-eci-ess-ta.
child-Nom bread-Nom bake-APPL-PASS-Past-Comp
Intended: 'The child is baked bread.'

b. *Ppang-i ai-eykey kwuw-ecwu-eci-ess-ta.
bread-Nom child-Dat bake-APPL-PASS-Past-Comp
Intended: 'The bread was baked for the child.'

(99) a. *Ai-ka os-i ip-hi-ecwu-eci-ess-ta.
child-Nom clothes-Nom wear-LEX.CAUS-v_{BEN}-PASS-Past-Comp
Intended: Lit. 'The child was dressed for.'

b. *Os-i ai-eykey ip-hi-ecwu-eci-ess-ta.
clothes-Nom child-Dat wear-LEX.CAUS-v_{BEN}-PASS-Past-Comp
Intended: 'The clothes were put on the child for the child.'

The impossibility of passive seems to be due to the *-ecwu* suffix, since without *-ecwu*, (100) and (101) allow the passive suffix after the verb.

(100) Ppang-i (ta) kwuw-eci-ess-ta.
bread-Nom (all) bake-PASS-Past-Comp
'The bread is (now all) baked.'

(101) Nolan os-i ai-eykey ip-hi-eci-ess-ta.
yellow clothes-Nom child-Dat wear-LEX.CAUS-PASS-Past-Comp
Lit. 'The yellow clothes were dressed to the child.'

It is unclear why sentences with *-ecwu* consistently ban passivization. This is especially puzzling when lots of languages do have a passive of applicative. In fact, the passive asymmetry is one of the well-known peculiarities of applicative constructions cross-linguistically (Baker 1988, Marantz 1984; 1993, Alsina & Mchombo 1993, Bresnan & Moshi 1993, McGinnis 2001; 2002, Baker et al. 2012). Particularly, in some languages, either the Beneficiary or Theme can A-move as in (102), and thus are regarded as symmetrical applicative languages. On the other hand, others allow passivization of the applied argument but not the Theme as in (103). In those languages, the applicative is considered to be asymmetrical.

(102) a. **Mka** n-a-i-lyi-i-o kelya. [*Kichaga*]
1-wife foc-1s-pres-eat-APPL-PASS 7-food
'The wife is being benefited by someone eating the food.'

b. **Kelya** k-i-lyi-i-o mka.
7-food 7s-pres-eat-APPL-PASS 1-wife
'The food is being eaten for the wife.' (Bresnan & Moshi 1993: 150)

(103) a. **Atsikana** a-na-gul-ir-idw-a mphatso (ndi chitsiru). [*Chichewa*]
2-girls 2s-past-buy-APPL-PASS-fv 9-gift (by 7-fool)
'The girls were bought a gift (by the fool).'

b. ***Mphatso** i-na-gul-ir-idw-a atsikana (ndi chitsiru).
9-gift 9s-past-buy-APPL-PASS-fv 2-girls (by 7-fool)
'The gifts were bought for the girls (by the fool).'
(Alsina & Mchombo 1993: 23)

Interestingly, Onishi (p.c.) informs that the Japanese equivalents of (98) are also ungrammatical. I do not have a satisfactory answer at the moment as to why passivization involving *-ecwu,* in both Appl and little *v* cases, result in ungrammatical sentences.

Harley (p.c.) suggests that the impossibility of passivization may arise from the incompatibility between the stative $\text{Appl}_{\text{HAVE}}$ head and Voice passive; and it is suggestive that Korean passivization by *-eci* applies to dynamic predicates, but not to stative ones. As is the case in (104), passivization by *-eci* is unacceptable with transitive perception verbs:[49]

(104) a. *Ku sasil-i al-aci-ess-ta.
the fact-Nom know-PASS-Past-Comp
Intended: 'The fact was known.'

b. ?*Ku pinhayngki-ka po-aci-ess-ta.
the plane-Nom see-PASS-Past-Comp
Intended: 'The plane was seen.'

If this speculation is on the right track, the impossibility to passivize the applicative

[49] It seems that when *-eci* is used with stative predicates like *see*, it invokes a potential/abilitative interpretation, similar to its Japanese counterpart *-rare*. The suffix *-eci* has other roles, which constitutes a separate research domain (Lim & Zubizarreta *to appear*).

constructions in (98) may serve as further evidence for the current analysis of Korean high applicative *-ecwu* as a stative projection.

CHAPTER 4. ROOT-SELECTING AND VOICE-SELECTING CAUSATIVES

In this dissertation, I have assumed that basic verb phrases consist of three structures – a category-neutral rootP, a verbalizing *v*P, and VoiceP – following approaches taken by Pylkkänen (2002; 2008), Cuervo (2003), Alexiadou et al. (2006), Harley (2013a), among others. This position is distinct from the traditional assumption that verb phrases consist of two structures – one lexical phrase (i.e., VP/√P) and one functional phrase (i.e., *v*P/VoiceP) (Chomsky 1995, Hale & Keyser 1993, Harley 1995; 2008a, Kratzer 1996, Marantz 1997, and many others). As for the argument structure of causative constructions, the former system yields three types of causatives – the causative head should be able to select for any projection among √P, *v*P, or VoiceP (Pylkkänen 2002; 2008, Tubino Blanco 2010, Tubino Blanco & Harley 2011, Harley 2013a, Key 2013). In chapters 4 and 5, I investigate some new questions stemming from the causative typology established by the tripartite verbal system. The current chapter focuses on the first two types of causatives – namely, root-selecting and Voice-selecting causatives – which are observed in the Korean language.

After introducing the three-way causative classification in section 1, I carry out two case studies that correspond to the root-selecting and Voice-selecting causatives in Korean. As I have already proposed in the previous chapters in connection with the applicative projection, this dissertation proposes an analysis that Korean lexical and productive causatives are root-selecting and Voice-selecting, respectively. Although the structural distinctions between lexical and productive causatives in Korean are among the

most investigated topics in Korean syntax (Shibatani 1973b, Park 1993, Um 1995, Kim 1998, Shibatani & Chung 2002, Yeo 2005, among many others), recent theoretical developments in generative grammar (Pylkkänen 2002; 2008, Cuervo 2003, Alexiadou et al. 2006, Harley 2013a, a.o.) call for revisiting their structures and raise new questions about the syntactic positions of causative affixes and Causee arguments. The main purpose of this chapter is two-fold. First, I provide further support for the current treatment of lexical and productive causatives in Korean. Second, I examine the consequences of situating Korean causatives within the typology of causatives introduced in section 1.

With Korean 'lexical' causatives, I probe into the syntactic position of lexical causative suffixes and the status of the Causee argument associated with embedded transitive roots (section 2). I present arguments that lexical causative suffixes must occupy the first verbalizing position (i.e., that they are root-selecting). I then provide new evidence from depictive secondary modification that the Agent-Causee argument possible in some lexical causatives is an external argument introduced by an eventive high Appl head (cf. Kim 2011a; b).

I then explore the structure of Voice-selecting causatives in Korean and the nature of the causative predicate *-keyha* (section 3). Building on the observations already in the literature, I demonstrate that *-keyha* should be further decomposed into two syntactic heads – *-key*, occupying a Res(ult) head (Ramchand 2008), and *-ha*, the second verbalizer bundled with Voice. I, however, argue that the complement of *-keyha* must be VoiceP, rather than nonfinite TP, departing from a longstanding assumption about Korean

productive causatives.

1. Causative Typology

This section reviews each of the three types of attested causatives in natural languages. They are termed root-selecting, verb-selecting, and Voice-selecting, according to the type of their complement.

1.1. Root-selecting causatives

Literature within the generative grammar has used various nomenclatures for what this dissertation terms 'root-selecting' causatives, following Pylkkänen (2002; 2008). Other labels they have been assigned include 'lexical causatives' (Kuroda 1965, Shibatani 1972, 1973a; 1973b, Miyagawa 1984, Marantz 1997), 'direct causation' (Shibatani 1973a; 1973b), 'inner causatives' (Svenonius 2005), and 'low-attachment causatives' (Harley 2008b). In this type of causative construction, it is typically the Causer, as an Agent, that performs an action – expressed by the composition of the root and causative affix – on the Theme, as in (1):

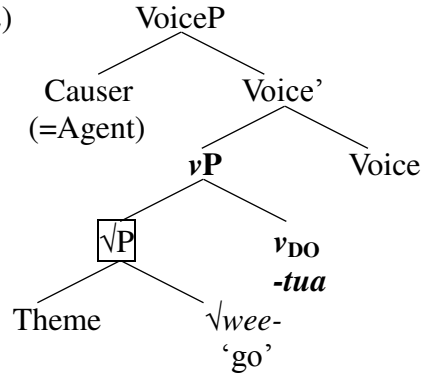
(1) a. In maala uka caro-ta **wee-tua**-k. [*Hiaki*]
my mother the car-Acc **go.sg-CAUS**-Perf
'My mother drove the car (Lit. My mother made the car go).'

b. Yenghi-ka mwul-ul **kkul-i**-ess-ta. [*Korean*]
Yenghi-Nom water-Acc **boil$_{vi}$-CAUS**-Past-Comp
'Yenghi boiled the water.'

The examples in (1) denote a single event where two participants are involved. In (1), the Causer argument, as an Agent, directly acts on the Theme argument. The content of

the action is expressed by the compositional semantics of the root and the causative suffix. Thus, the causative results in a monoclausal structure, just like a transitive agentive structure with a single VoiceP. (2) illustrates the structure of the Hiaki sentence in (1a). Its Korean counterpart would have an identical structure with the lexical causative suffix *-i* occupying the *v* position instead of *-tua*.

(2)



<*Root-selecting causative – Hiaki*>

In (2), the causative suffix, by definition, is located root-adjacently, therefore realizes the verbalizing *v* in the present framework.[1] An additional assumption of this dissertation is that since (2) amounts to a monotransitive structure with a single Theme argument, the type of the verbalizing head is v_{DO}, rather than v_{CAUS}.[2] Lexical causatives involving v_{CAUS} are derived ditransitives (i.e., lexical causatives of transitive roots), where the relationship between two other arguments is established before the Causer argument is

[1] See section 2.1 of this chapter and section 3 for chapter 2 for additional support for analyzing the lexical causative suffix as a realization of the verbalizing head as in (2).

[2] As discussed in section 2 of chapter 3, the distinction of the two verbalizers – v_{DO} and v_{CAUS} – is borrowed from Folli & Harley (2005; 2007). Remember, however, that the current implementation of v_{DO} refers to a broader range of (derived) monotransitives (e.g., (2)), compared to Folli & Harley's (2005) postulation of v_{DO} used for verbs of consumption and creation with an animate subject.

introduced (see section 2 of chapter 3, and section 2.2 of this chapter).

A typical property of root-selecting causatives is that only a limited set of roots appear in this causative configuration, as discussed in section 3 of chapter 2. This is the case with both Hiaki and Korean lexical causatives. A difference between Hiaki lexical causatives and Korean ones is that only the latter group has idiosyncratic spell-outs for the causative head *-i/-hi/-li/-ki/-wu/-kwu/-chwu*, depending on the root that it follows.[3] On the other hand, as noted in chapter 2, Hiaki *-tua* is generally homophonous between its lexical and productive, Voice-selecting, uses.[4]

Recall from chapters 2 and 3 that Korean lexical causatives involve not only unaccusative roots, but also some transitive roots. Lexically causativizing transitive roots results in a ditransitive structure. Thus, structural identity with the agentive monotransitive structure as in (2) cannot be a necessary property of root-selecting causatives. Taken together, a root-selecting causative is characterized by three properties – it depicts a single event (i.e., single *v*); the causative head is adjacent to the root; it involves a single VoiceP.[5]

---

[3] The allomorphy of the root-selecting causative is also observed with lexical causatives in Japanese (Miyagawa 1980; 1984, Jacobson 1981; 1992, Harley 2008b), Turkish (Key 2013), etc.

[4] The lexical causative *-tua* in denominal lexical causatives such as *on-tua* 'salt-LEX.CAUS = to salt' can alternate with the suffix *-te* (Haugen 2004, Harley 2013a)*; on-te* 'to salt'. Notice, however, *-tua* attached to nominals is not root-selecting in a strict sense, due to the presence of an intermediate nominalizing functional layer (see discussion in section 7.3 of chapter 2). In this chapter, I use root-selecting and lexical causatives roughly in the same sense, however, as I do not address denominal lexical causatives.

[5] In the root-selecting causatives which I discuss in this dissertation, the second condition entails the third condition. However, there are instances where the causative suffix is root-adjacent, but the overall structure contains no VoiceP. Unaccusative causatives in Japanese (Pylkkanen 2002; 2008, chapter 3), traditionally known as adversity causatives (Oehrle & Nishio 1981, Miyagawa 1989), exemplify this category. In this construction, the causative suffix is present with no the external Agent argument. These causatives are by definition also root-selecting. Thus, strictly speaking, the last property (i.e., existence of a single VoiceP) does not define root-selecting causatives. In this dissertation, however, I only discuss the root-selecting type with a VoiceP.

1.2. Voice-selecting causatives

Voice-selecting causatives have also been called 'syntactic causatives' (Kuroda 1965), 'analytic causatives' (Miyagawa 1984), 'productive causatives' (Shibatani & Pardeshi 2002), 'high-attachment causatives' (Harley 2008b), or 'phase-selecting causatives' (Pylkkänen 2002; 2008).[6] While all of these labels are accurate in the context they are discussed in, it is noteworthy that except for Pylkkänen's (2002; 2008) phase-selecting causatives, the above terms were coined to distinguish them from a different type of causatives – root-selecting causatives – of the language. Consequently, these terms also apply to yet another type of causatives – verb-selecting (section 1.3) – in that both are syntactic and productive, as opposed to lexical, idiosyncratic, etc. In this dissertation, I distinguish the two productive types as Voice-selecting and verb-selecting causatives.

Let us first consider the Voice-selecting ones. First, the formation of Voice-selecting causatives is not restricted to certain roots. Rather, it is productive. Second, Voice-selecting causatives involve two external arguments (i.e., Causer and Causee), as in (3)-(4).[7] Third, the participants in Voice-selecting causatives do not belong to the same event, unlike root-selecting causatives. To illustrate, in (3a), the caused event where the doctor treats Santos and the causative event initiated by Maria do not coincide.

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[6] There is also the term "periphrastic causatives" (Shibatani 1973b), which is not interchangeable with other labels above, as it refers to the free (vs. bound) morphological status of the causative predicate. For example, according to the definition provided in Song (2005), Korean *-keyha* is periphrastic due to the intervening *-key* element (see section 2.2 for analysis and fn. 24 for a note on orthographic convention). In contrast, Japanese *-sase,* or Hiaki *-tua* are nonperiphrastic. The three, however, all are Voice-selecting, as they can be biclausal – involving two VoiceP's – according to the diagnostics below.

[7] The Causee of *-keyha* can either be dative or accusative marked in (4), possibly with some empirical consequences. I focus on dative Causees in this dissertation. See Kang (1984) and Yeo (2006) for this aspect of Korean productive causatives and Harley (1995), Miyagawa (1999) for Japanese counterparts.

(3) a. Maria hitevi-ta Santos-ta hitto-**tua**-k. [*Hiaki*]
Maria doctor-Acc Sanots-Acc cure-**CAUS**-Perf
'Maria made the doctor treat Santos.'

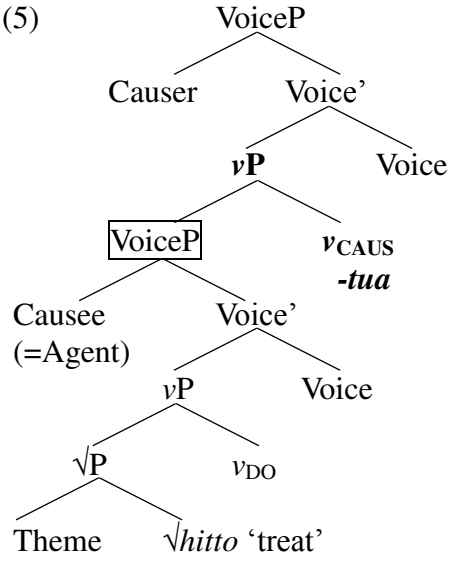
b. Maria si yee va-vamih-**tua**. [*Hiaki*]
Maria very people red-hurry-**CAUS**
'He always makes people hurry up.' (Tubino Blanco 2010: 256)

(4) a. Emma-ka Mary-eykey ppang-ul kwup-**keyha**-ess-ta.
mother-Nom Mary-Dat bread-Acc bake-**CAUS**-Past-Comp
'Mother made Mary bake bread.' [*Korean*]

b. Yenghi-ka Chelswu-eykey yoli.ha-**keyha**-ess-ta.
Yenghi-Nom Chelswu-Dat cooking/dish.do-**CAUS**-Past-Comp
'Yenghi made Chelswu cook.' [*Korean*]

The complete structure of Voice-selecting causatives thus contains two VoiceP's – one hosting the matrix Causer and the other hosting the embedded Agent-Causee. (5) represents this structure, based on the Hiaki example (3a).[8]

(5)



<*Voice-selecting causative – Hiaki*>

[8] Recall from chapter 2 that Hiaki productive *-tua* is non-Voice-bundling, whereas its Korean counterpart is Voice-bundling.

Because Voice-selecting causatives contain two VoiceP's as in (5), certain clausality tests diagnose them as biclausal. It is a well-known property that agent-oriented adjuncts can modify either the Causer or the Causee (Shibatani 1972; 1973a; 1973b, Harley 2008b) in Voice-selecting causatives.

(6) a. Uu yoeme hamut$_i$-ta **si** **bwiikaka**$_i$ muunim [*Hiaki*]
The man woman-Acc **very** **singing** beans.Acc

bwasa'a-tua-k.
cook-CAUS-Perf
'The man made [the woman cook beans, singing loudly].'

b. Uu yoeme$_k$ **si** **bwiikaka**$_k$ hamut-ta muunim [*Hiaki*]
The man **very** **singing** woman-Acc beans.Acc

bwasa'a -tua-k.
cook-CAUS-Perf
'The man, while singing loudly, made the woman cook beans.'

(7) a. Yenghi-ka **Chelswu$_i$**-eykey **nolay-lul** **pwulu-mye$_i$** [*Korean*]
Yenghi-Nom **Chelswu**-Dat **song-Acc** **call-ppl**

yoli.ha-keyha-ess-ta.
cooking/dish.do-CAUS-Past-Comp
'Yenghi made [Chelswu cook, singing].'

b. **Yenghi$_k$**-ka **nolay-lul** **pwulu-mye$_k$** Chelswu$_i$-eykey [*Korean*]
Yenghi-Nom **song-Acc** **call-ppl** Chelswu-Dat

yoli.ha-keyha-ess-ta.
cooking/dish.do-CAUS-Past-Comp
'Yenghi, while singing, made [Chelswu cook].'

A caveat on this test is in order. It is important to note that the relationship between the external argument of VoiceP and agent-oriented adjuncts – especially, adverbs like 'intentionally', 'deliberately' – is not bidirectional (Harley p.c.). As pointed out by

Kallulli (2006), and observed by others (Rosen 1984, Levin & Rappaport 1995, Folli et al. 2005), agent-oriented adverbs can be coerced to modify arguments that are not base-generated in Spec-Voice. The same is true with agent-oriented participials like (6)-(7). Thus, while these adjuncts suggest agency, they do not guarantee the modified argument to be a genuine argument of Voice.[9] In addition, agent-oriented adverbs sometimes cannot readily modify arguments of Voice. For example, the Causee in (6)-(7) cannot be naturally modified by 'intentionally/deliberately' to due to the inherent causative semantics.[10]

However, in the other direction, the test is reliable if used with a particular set of agent-oriented adjuncts. If the target argument is an argument of Voice, it should be able to accept modification by agent-oriented participials. Therefore, applying this test

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[9] The agent-oriented adjunct diagnostic does consistently exclude some non-Voice participants: (a) adjuncts (e.g., adjunct Causee of verb-selecting causatives in section 1.3); (b) a lower animate argument in a single event where there exists a separate external argument of Voice (see (i) below). The (b) case is in line with Shibatani's (1972) original point.

(i) #Chelswu$_i$-ka Yenghi$_k$-lul pay-lul cap-umye$_{i/*k}$ wus-ki-ess-ta. [*Korean*]
Chelswu-Nom Yenghi-Acc belly-Acc grab-ppl laugh-LEX.CAUS-Past-Comp
'Chelswu made Yenghi laugh, grabbing (her/her) belly.'

'Grab one's belly' is a fixed expression that describes an action of laughing. However, in (i), with the lexical causative, the adjunct can only modify the Causer, rendering the sentence awkward. The same pattern is observed in Hiaki. (ii) cannot mean that the child went to bed quietly, suggesting the lexical causative status of *-tua* in this sentence.

(ii) #In maala$_i$ ili usi-ta$_k$ si kaa haiti hiaka$_{i/*k}$ kot-tua-k. [*Hiaki*]
my mother little child-Acc very not dirty making sounds sleep-CAUS-Perf
'My mother put the little child to sleep, not making noise.'

[10] It is sometimes more difficult to coerce a non-Voice argument to have an agentive interpretation by associating it with agent-oriented adverbs than with agent-oriented participials (Harley p.c.). However, a crucial problem about agent-oriented adverbs is that they sometimes cannot pick out a true Agent argument, as mentioned above. Givón (1976) makes essentially the same point. He observes that the Agent-Causee of English *make* causatives (i.e., Voice-selecting causatives, according to Tubino Blanco 2010) does not allow modification by agent-oriented adverbs. This complication does not arise with agent-oriented participials, as in (6)-(7).

requires caution. In order to get consistent results, I take two measures. First, this diagnostic is implemented in conjunction with other test(s). Second, I use agent-oriented participials, as in (6)-(7), rather than adverbs.

The second testing ground concerns binding patterns. Voice-selecting *-tua* involves two binding domains. In Hiaki, the Causer is outside the binding domain of the reflexive in (8), showing that the embedded Causee is sitting in a position that marks the clause boundary – Spec-Voice. The co-indexation between the Causer and the Theme marked by the pronoun further suggests the biclausality of (8).

(8) **Nee** Art-ta **ne/*ino** sua-tua. [*Hiaki*]
I Art-Acc **1sg/1.refl** care.for-CAUS
‘I make Art take care of me.’ Tubino Blanco et al. (2009: 88)

Notice that Korean productive causatives formed with *-keyha* cannot be tested using Condition A due to the fact that the Korean anaphors *caki/casin* are long distance anaphors. However, as shown in section 2.2 of chapter 2, both the Causee and Causer in Korean productive causatives can bind the subject-oriented anaphors as in (10), whereas an applied argument cannot, as in (9).

[*Korean*]
(9) Yenghi$_i$-ka Chelswu$_k$-eykey casin$_{i/*k}$-uy sosel-ul ilk-e**cwu**-ess-ta.
Yenghi$_i$-Nom Chelswu$_k$-Dat self$_{i/*k}$-Gen novel-Acc read-**APPL**-Pst-C
‘Yenghi read her novel for Chelswu.’

(10) Yenghi$_i$-ka Chelswu$_k$-eykey casin$_{i/k}$-uy yangmal-ul ppal-**keyha**-ess-ta.
Yenghi$_i$-Nom Chelswu$_k$-Dat self$_{i/k}$-Gen socks-Acc wash-**CAUS**-Past-C
‘Yenghi had Chelswu wash her socks.’ OR ‘Yenghi had Chelswu wash his socks.’

The different binding behaviors in (9)-(10) were taken as evidence that the former two arguments (i.e., Causer, Causee) can serve as the subject of their own clauses – namely, VoiceP –, but not the latter (i.e., applied argument), (Baker et al. 2012, cf. Shibatani 1973a; 1973b).

Unfortunately, the applicability of Condition B in a productive causative construction in Korean is affected by the availability of long distance anaphors. In a simple survey conducted with six native speakers, all speakers agreed that the long distance interpretation of *casin* (or *caki*) in (11a) is possible, as expected.[11] However, only two judged that the pronoun *ku* can refer to the matrix Causer in (11b).

[*Korean*]

(11) a. Chelswu$_i$-ka [Yenghi-eykey casin$_i$-ul ttayli]-keyha-ess-ta]
Chelswu$_i$-Nom [Yenghi-Dat self$_i$-Acc beat]-CAUS-Past-Comp]
'Chelswu$_i$ made Yenghi beat him$_i$.'

b. Chelswu$_i$-ka [Yenghi-eykey ku$_{k/\%i}$-lul ttayli]-keyha-ess-ta]
Chelswu$_i$-Nom [Yenghi-Dat him$_{k/\%i}$ beat]-CAUS-Past-Comp]
'Chelswu$_i$ made Yenghi beat him$_{k/i}$.'

The diverging judgments show that the fact that long distance anaphor sounds more natural in the embedded Theme position in (11a) inhibits the use of a pronoun in its place, rending unstable the connection between the pronoun and the matrix Causer in (11b).[12]

Taken together, application of the binding diagnostics necessitates taking into

[11] Of course, (11a) is ambiguous in that *Yenghi* can also antecede the anaphor *casin* 'self', which I abstract away in the current discussion. Compare (11a) with (10).

[12] Notice that the difficulty of linking the pronoun in (11b) to the matrix subject does not mean that the productive causative in (11b) is monoclausal (i.e., the size of the embedded caused event complement is smaller than VoiceP). Compare (7a) and (i) in fn. 9, which describe modification by agent-oriented participials. The patterns show that Korean productive causatives do not involve a single VoiceP, as root-selecting lexical causatives do.

account the properties of anaphors in the language. In this dissertation, I assume that Conditions A and B are at work, unless the language possesses long distance anaphors. As for languages with long distance anaphors (e.g., Korean), I maintain the above conclusion, following Shibatani (1973a; 1973b), Baker et al. (2012); the difference between the embedded dative Causee and the dative applied argument in (9)-(10) in the ability to bind the subject-oriented anaphor points to status of the former as the subject of the embedded VoiceP.

To conclude, Voice-selecting causatives deal with two events – the causing and caused events (Pylkkänen 2002; 2008) – marked by two *v*'s. The causative predicate is associated with the second/outer *v*. Each event contains a Voice projection, led by the matrix Causer and the embedded Causee, respectively. This is in contrast to root-selecting causatives which reflect a single event which all arguments belong to.

1.3. Verb-selecting causatives

The last type of causative selects as its caused event complement a verbalized unit, excluding the external-argument-introducing VoiceP (Pylkkänen 2002; 2008). These are verb-selecting causatives. Verb-selecting causatives possess some properties similar to each of root-selecting and Voice-selecting causatives. Verb-selecting causatives resemble Voice-selecting causatives in that both productively causativize the embedded verb. However, verb-selecting causatives test as monoclausal according to the clausality tests discussed above. In other words, they behave like root-selecting causatives in clausality tests due the absence of the inner VoiceP, which introduces the Agent-Causee in their Voice-selecting counterparts.

Key (2013) has demonstrated that the productive causatives in Turkish and Hungarian belong to this class. Tubino Blanco (2010) and Harley (2013a) have argued that the Hiaki indirect causatives realized by *-tevo* do, too.[13] While both Turkish productive causatives and Hiaki indirect causatives illustrate the verb-selecting category, they differ in that Turkish expresses an overt Causee optionally, whereas in Hiaki the Causee may not be expressed:

(12) Kadın **Ekrem-e** et-i kes-**tir**-di. [*Turkish*]
woman **Ekrem-Dat** meat-Acc cut-**CAUS**-Past
'The woman had the meat cut/had Ekrem cut the meat.' (Key 2013: 185)

(13) a. Inepo Santoh-ta hitto-**tevo**-k. [*Hiaki*]
I Santos-Acc treat.medically-**CAUS**-Perf
'I had Santos treated (for a medical condition).' (Harley 2013a: 51)

b. *Inepo **hitevi-ta** Santoh-ta hitto-**tevo**-k. [*Hiaki*]
I **doctor-Acc** Santos-Acc treat.medically-**CAUS**-Perf
Intended: 'I had the doctor treat Santos (for a medical condition).'

The two, however, show consistent properties of monoclausality due to the absence of an embedded Voice layer. Agent-oriented participials must refer to the matrix Causer, not the Causee:

(14) Tarkan$_i$ Hakan$_k$-a Mehmet-i bil-erek$_{i/*k}$ döv-**dür**-dü. [*Turkish*]
Tarkan Hakan-Dat Mehmet-Acc know-Part beat-**CAUS**-Past
'Tarkan$_i$ made Hakan$_k$ beat Mehmet on purpose$_{i/*k}$.' (Key 2013: 175)

[13] Romance *Faire Par* causatives (Kayne 1975), and Chichewa oblique causatives (Alsina 1992) also seem to belong to this category. See chapter 5 for a detailed discussion of the latter.

(15) Uu kosineu$_i$ si bwiikaka$_{i/*k}$ muunim bwasa'a-**tevo**-k. [*Hiaki*]
the cook very singing beans cook-**CAUS**-Perf
'The cook$_i$, singing$_{i/*k}$ loudly, had the beans cooked.'

Secondly, the binding facts indicate that verb-selecting causatives involve a single binding domain. Of importance in (16b) is that the pronoun realizing the embedded Theme argument cannot be anteceded by the matrix Causer. Similarly, in Hiaki (17), the Theme argument in the embedded caused event complement must appear as a reflexive, rather than a pronoun. Since Turkish and Hiaki anaphors are not long distance anaphors, unlike those in Korean, we are led to one conclusion. The productive causative in Turkish in (16b) and the indirect causative in Hiaki (17) are both monoclausal.

(16) a. Hakan$_i$ on-u$_{*i}$ döv-dü [*Turkish*]
Hakan 3sg.Acc beat-Past
'Hakan beat him.'

b. Tarkan$_i$ Hakan-a$_j$ **on-u$_{*i/*j}$** döv-**dür**-dü [*Turkish*]
Tarkan Hakan-Dat **3sg.Acc** beat-**CAUS**-Past
'Tarkan made Hakan beat him.' (Key 2013: 175-176)

(17) Inepo **ino/*nee** sua-**tevo**. [*Hiaki*]
I **myself/me** take.care-**CAUS**
'I'm having myself/me taken care of.'
(adapted from Tubino Blanco 2010: 258)

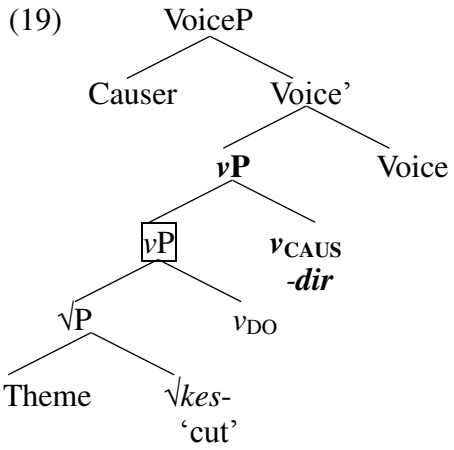
Key (2013) accounts for the monoclausal properties of Turkish productive causatives by analyzing the dative Causee as an adjunct. Indeed, the dative Causee can be dropped with no contextual support (Özkaragöz 1986 cited in Key 2013: 184):

(18) Kadın et-i kes-**tir**-di. [*Turkish*]
woman meat-Acc cut-**CAUS**-Past
'The woman had the meat cut/had (someone) cut the meat.'

In the case of Hiaki, Tubino Blanco (2010), Tubino Blanco & Harley (2011), Harley (2013a) conclude that the indefinite Agent-Causee is only semantically available, with no syntactic presence (see chapter 5 for a detailed discussion).

The structure of verb-selecting causatives can be postulated as in (19):[14]

(19)



<*Verb-selecting causative – Turkish*>

With two verbalizers marking the eventuality in (19), the structure represents two events – causing and caused events. The embedded caused event refers to the action performed but lacks a structural position for the Causee who performs this action. If VoiceP is the projection that serves as the boundary for binding and is where agent-oriented participials attach, the monoclausal properties of Turkish and Hiaki causatives can be explained by

[14] (19) differs from Key's (2013, chapter 5) structure in one respect. Key provides an argument that the productive causative head such as v_{CAUS} in (19) (presumably in (5) as well) is a pure causativizing head CAUS and does not serve the verbalizing function. I do not adopt this part of his proposal, however, given the selectional variation of the Appl head discussed in chapter 2.

positing that the caused event complement lacks an inner Voice layer, as in (19).

Although affixal verb-selecting causatives are relatively less investigated compared to Voice-selecting causatives, Baker (1988) provides an extensive analysis of this type of causative under his incorporation framework. He categorizes verb-selecting causatives as Type I causatives, in contrast to the Type II causatives, which correspond to the modern classification of Voice-selecting causatives. In addition to the possibility of agent-oriented participial modification and the binding patterns above, another distinction between the two productive causatives is offered in Baker (1988). Specifically, the distinction lies in whether the causative affix can embed passive morphology. Type I (i.e., verb-selecting) causatives cannot, whereas Type II (i.e., Voice-selecting) causatives can. This makes sense considering Embick (2004), in which different kinds of Voice heads are argued to be in complementary distribution. If Voice active and Voice passive are syntactic realizations of the same head, then Voice-selecting causatives in principle are expected to be able to embed the passive affix, whereas verb-selecting causatives should not. This test, however, is not applicable universally, suggesting that it is a sufficient, but not necessary, diagnostic for Voice-selecting causatives.[15]

To recap, verb-selecting causatives involve two events marked by two *v*'s – the

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[15] Baker (1988: 487, en. 37) makes a remark that some Type II (i.e., Voice-selecting) causatives cannot embed passive morphology, which is attributed to accidental gaps. This seems to be the case with Hiaki Voice-selecting *-tua* and Korean *-keyha*. In Korean, however, careful manipulation does produce a grammatical example below:

(i) Koki-ka cal kwuw-**eci-keyha**-lyemyen, cacwu twicip-ci-ma-se-yo.
meat-Nom well grill-**PASS?-CAUS**-in order to, often flip-CI-don't-Polite-Comp.
'In order for the meat to be grilled well, do not flip it too often.'

(i), however, appears to lack an Agent *by*-phrase entirely, and it is the Causer who is grilling the meat. (i) then opens up a possibility that the purported passive morpheme is an inchoativizing v_{BECOME} bundled with Voice or a middle Voice. I do not pursue this question further in this dissertation.

causing and caused events – like Voice-selecting causatives. However, because the embedded Causee is not a syntactic argument, the overall causative structure contains a single Voice projection, like root-selecting causatives. As a result, even though verb-selecting causatives are productive, they are tested monoclausal with respect to agent-oriented participial modification and binding.

An in-depth study of verb-selecting causatives and variation within them is further pursued in chapter 5. The rest of this chapter is devoted to the morphological and structural properties of the other two types of causatives – root-selecting and Voice-selecting causatives – which are present in Korean.

2. Root-selecting Causatives in Korean

This section has two goals. First, I present four arguments that Korean lexical causative suffixes occupy the first verbalizing head, rather than Voice (contra Kim 2011a) (section 2.1). Second, I provide novel evidence for the structure of lexical causatives formed based on transitive roots proposed in earlier chapters. In particular, the attachment patterns of depictive secondary predicates support distinct treatments of the two types of dative Causees (Kim 1998, Son 2006) (section 2.2).

2.1. Lexical causative suffixes occupy the *v* head, not Voice

In this subsection, I present four arguments that the lexical causative suffixes in Korean realize the first verbalizer $v_{\text{DO/CAUS}}$, directly attached to the root phrase. This analysis thus differs from approaches such as Kim (2011a), where the lexical causative suffixes are

claimed to realize Voice.[16]

Let us consider the lexical causatives of unaccusatives such as (20a)-(21a) and their unaccusative alternants in (20b)-(21b):

(20) a. **Yenghi-ka** mwul-ul kkul-**i**-ess-ta.
Yenghi-Nom water-Acc boil_{vi}-**CAUS**-Past-Comp
'Yenghi boiled the water.'

b. Mwul-i kkul-ess-ta.
water-Nom boil_{vi}-Past-Comp
'The water boiled.'

(21) a. **Yenghi-ka** ppallay-lul mal-**li**-ess-ta.
Yenghi-Nom laundry-Acc become.dry-**CAUS**-Past-Comp
'Yenghi dried the laundry.'

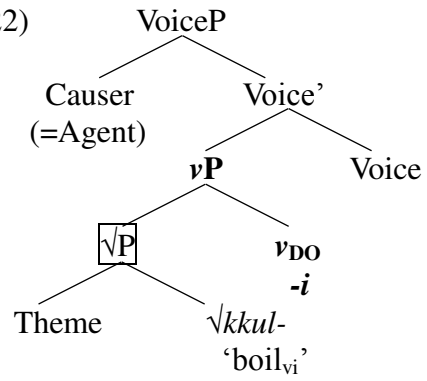
b. Ppallay-ka mal-lass-ta.
laundry-Nom become.dry-Past-Comp
'The laundry has dried.'

Compared with (20b)-(21b), two things stand out in (20a)-(21a) – the introduction of the Agent-Causer argument and the suffixation of the lexical causative morpheme *-i/-li*. Because the introduction of the external argument is accompanied by the attachment of the causative suffix, one might reason that the causative suffix is responsible for

[16] Although Kim (2011a, b) primarily focuses on lexical causatives of transitive roots, the analyses that the causative suffixes realize Voice (Kim 2011a) or high Appl (Kim 2011b, chapter 2) are expected to carry over to lexical causatives of unaccusatives. In Kim (2011b), the lexical causative suffixes attached to transitive roots occupy the high $\text{Appl}_{\text{INSTR}}$ head. This high Appl head in turn introduces an eventive Causee (e.g., the reader of the lexical causative form *ilk-hi* 'read-LEX.CAUS') that differs from a full-fledged Agent argument of Voice. Since the lexical causative of an unaccusative like (20a) does not contain such a Causee, the high Appl analysis of the causative suffix (Kim 2011b, chapter 2) is ruled out in the first place for (20a). The causative suffix is analyzed as Voice in Kim (2011a) in her earlier study. The evidence Kim (2011a) presents is that the external argument (i.e., matrix Causer) is added by the causative suffix, thus the latter must realize the head that hosts the former. While I present some challenges for Kim (2011a, b) with respect to the syntactic position of the causative suffix, I follow Kim (2011a, b) in concluding that the eventive Causee argument associated with lexical causative of agentive transitive roots is introduced by a high Appl, though not an $\text{Appl}_{\text{INSTR}}$, in particular.

introducing the Agent-Causer in (20a)-(21a). This is indeed what is standardly assumed in analyses where a single functional layer *v*P does the jobs of the current *v*P and VoiceP (Son 2006, Shim 2008 for Korean, Harley 2008b for Japanese). In a tripartite verb structure, however, a new question arises as to which functional head the lexical causative suffix realizes – is it *v* or Voice? As previewed in (2), I argue that the causative suffix must occupy *v*, rather than Voice (contra Kim 2011a), as in (22).

(22)



<*Root-selecting causative – Korean*>

I present four arguments below. First, lexical causative suffixes exhibit allomorphy depending on the particular root they are associated with (see Harley 2008b, Miyagawa 2011 for analogous cases in Japanese, Özkaragöz 1986, Key 2013 for Turkish). The list of some unaccusative roots and their lexical causative forms discussed in chapter 2 is repeated below:

(23)	Lexical causative *v*	Unaccusative/Intransitive	Causative/Transitive
	-i	*kkul* ‘boil’	*kkul-i* ‘boil’
		cwuk ‘die’	*cwuk-i* ‘kill’
	-hi	*ik* ‘ripen’	*ik-hi* ‘ripen’
		anc ‘sit’	*anc-hi* ‘seat’
	-li	*tol* ‘spin’	*tol-li* ‘spin’
		nal ‘fly’	*nal-li* ‘fly’
		wul ‘cry’	*wul-li* ‘cry’
	-ki	*swum* ‘hide’	*swum-ki* ‘hide’
		wus ‘laugh’	*wus-ki* ‘make laugh’
	-wu	*tot* ‘grow’	*tot-wu* ‘grow’
		ca ‘sleep’	*ca-ewu* ‘put to sleep’
	-kwu	*sos* ‘rise’	*sos-kwu* ‘raise’
		tal ‘heat (e.g., metal)’	*tal-kwu* ‘heat (e.g., metal)’
	-chwu	*nac* ‘be low’	*nac-chwu* ‘lower’
		nuc ‘be late’	*nuc-chwu* ‘delay’

According to Harley (2008b) and Miyagawa (2011), the allomorphy results from a complement-head relationship between the lexical root selected and the causative head. The requirement of structural adjacency to trigger allomorphy on the selecting head captures the difference between the lexical causative and syntactic causative predicates. Under this account, the uniform spell-out of the syntactic/productive causative predicate is due to the fact that the embedded root and the causative predicate are not structurally adjacent. In other words, there is (an) intervening syntactic head(s) between the embedded root and the productive causatives, which blocks contextual allomorphy. This insight can be directly applied to identify the position of the lexical causative suffix in (22). The discussion so far motivates a treatment where the structural adjacency is established between the (lexical) causative head and the root as in (22); hence, the causative suffix must under the *v* node. By contrast, if the causative suffix occupied Voice in (22), there would be a null intervening *v* head between the root and Voice. In such a

case, the root and Voice heads are structurally not adjacent, therefore, would not meet the condition for contextual allomorphy. Consequently, the question would remain as to why the spell-out of the lexical causative suffix varies depending on which root it occurs with.

The second argument comes from Pylkkänen's (2002; 2008) prediction about morpheme ordering. The idea is that because root-selecting causatives directly take a √P complement, one would expect no other verbal morphology to intervene between the root and the causative suffix. We have already discussed cases involving the high Appl suffix following a lexical causative in chapter 2:

(24) Mary-ka tongsayng-eykey lamyen-ul kkul-**i-ecwu**-ess-ta.
Mary-Nom brother-Dat noodle-Acc $boil_{vi}$-**CAUS-APPL**-Past-Comp
'Mary cooked noodle for brother.'

Observe that reversing the order of the lexical causative and applicative suffixes as in (25) leads to ungrammaticality:

(25) *Mary-ka tongsayng-eykey lamyen-ul kkul-e**cwu-i-**ess-ta.
Mary-Nom brother-Dat noodle-Acc $boil_{vi}$-**APPL-CAUS-**Past-Comp
Intended: 'Mary cooked noodle for brother.'

If *-i* in (22) were the spell-out for Voice, rather than v_{DO}, we would expect the opposite to be the case. This is because the Voice head can take a high ApplP complement (Pylkkänen 2002; 2008), but not the other way around (see chapter 2). Therefore, one would predict the causative suffix to follow, not precede the high Appl suffix, contrary to fact.

Third, passive morphology (Park & Whitman 2003, Park 2005) can co-occur with the

lexical causative morpheme as in (26):

(26) a. Lamyen-i ta kkul-**i-eci**-ess-ta.
noodle-Nom all $boil_{vi}$-**CAUS-PASS**-Past-Comp.
Lit. 'The noodle was all boiled.' ('The noodle is ready.')

b. Ku saken-uy cinsang-i Shellok-ey uyhay palk-**hi**-**eci**-ess-ta.
the case-Gen truth-Nom Sherlock-by bright-**CAUS-PASS**-Past-Comp
Lit. 'The truth about the case was brightened by Sherlock.'
('The truth about the case was revealed by Sherlock.')

Assuming that active and passive Voice are mutually exclusive (cf. Embick 2004), if the lexical causative suffixes occupied Voice, the co-occurence (of the passive morphology and the lexical causative would be impossible. Furthermore, the ordering such that the passive suffix follows the causative suffix in (26) confirms that the causative suffix occupies a syntactic position lower than Voice. Since Korean is a head-final language, if a syntactic head A is structurally higher than another head B, then on the surface order, the morpheme that realizes A must follow the morpheme that realizes B (Baker 1985). Assuming the passive suffix occupies the passive Voice head, one is led to conclude that the causative suffix in (26) is lower than Voice. That position in the given framework is the verbalizing *v* in (22).

The final piece of evidence is taken from the patterns of some Korean idioms. Since idioms can be comprised of a lexical verb and its object, but exclude an external argument (Kratzer 1994; 1996, Marantz 1997, Harley & Stone 2013), the idiom chunk in a verb structure like (22) should not include VoiceP (cf. Harley *to appear*). In this vein, it

is informative that some idioms require the presence of the lexical causative morpheme.[17] That is, their unaccusative version does not invoke the idiomatic reading. (27)-(28) are taken from Kim's (2005:11) idiom list. I provide another one in (29):

(27) a. nwun-ul pwut-**i**
eyes-Acc attach$_{vi}$-**CAUS**
'get a little bit of sleep (after being awake for a long time)'

b. *nwun-i pwut
eyes-Nom attach$_{vi}$

(28) a. tung-ul tol-**li**
back-Acc turn$_{vi}$-**CAUS**
'turn (one's) back'

b. *tung-i tol
back-Nom turn$_{vi}$

(29) a. kyengcol-ul wul-**li**
alarm bell-Acc ring$_{vi}$-**CAUS**
'draw attention'

b. *kyengcol-i wul
alarm bell-Nom ring$_{vi}$

The fact that lexical causative suffixes must be included in the above idioms suggests that the syntactic position that the lexical causative suffixes belong to cannot be as high as Voice. Crucially, an examination of the extensive idiom list in Lee et al. (2008), an idiom dictionary containing one thousand tokens, reveals that no Korean idiom requires the

[17] The separation of Voice from verbalizing *v* revises Marantz (1997)'s original claim that idioms include the external-argument-introducing head itself – the *v* at the time – but not its Spec. See, however, Stone's (2009) investigation of English idioms which concludes that idioms may differ in size – some include Voice, while others do not.

passive *-eci* (i.e., passive Voice) or the productive causative *-keyha* (i.e., the Voice-selecting causative) to complete the idiomatic interpretation.[18] This suggests that lexical causatives cannot be the phonological exponent of Voice, but they must be located lower in the tree in (22) – under the verbalizing *v*.

In summary, a variety of evidence – the contextual allomorphy of lexical causative suffixes, their morpheme order with respect to the applicative suffix, their co-occurrence with the passive suffix, the idiom data – point to the conclusion that lexical causative suffixes in Korean are realizations of the first verbalizing *v* immediately above √P, not any higher. Having identified the structural position of the lexical causative morphemes, I now turn to a subclass of lexical causatives, whose embedded root is transitive.

2.2. Transitive lexical causatives and the eventive Appl

As was addressed in chapter 2, section 4.2.1. and chapter 3, Korean possesses lexical causatives of transitives in addition to lexical causatives of unaccusatives. Kim (1998) and Son (2006) further claim that the transitive roots that can be lexically causativized are divided into two groups – agentive transitives such as (30) and non-agentive transitives such as (31) – based on the role of the Causee (i.e., the argument "y" in (30)-(31)).[19] In

[18] Apparent counterexamples are some verbs that include *-eci* to denote the change of state meaning (e.g. *ttuleci-* 'fall'). However, because these verbs are not acceptable without *-eci* (i.e.,**ttul*), *-eci* in those cases can be considered having undergone reanalysis such that the suffix *-eci* has become part of the lexical root or the root-selecting v_{BECOME}. How to treat this special case of *-eci* is an open question.

[19] Kim (1998) and Son (2006) provide another distinction between the two groups – namely, the modification possibilities by *ppali* 'quickly'. They note that manner adverbs can either modify the embedded verb 'read', or the causative 'make read' in the case of agentive group. They judge that with the non-agentive group, the eventive adverb unambiguously modify the overall *v*P 'make wear/dress'. I agree with their judgment of the non-agentive group. I disagree, however, with their judgment of the agentive group. The putative two scopes for agentive roots are in fact indistinguishable, as in (i).

this subsection, I provide a novel piece of evidence that the Causee is in the group (30) is actually introduced by an eventive Appl head, as I have argued in chapter 2.

The data in (30)-(31) are selected from (Son 2006: 50-51) with some additional examples. Because the embedded roots are transitive, the lexical causatives of these roots yield a ditransitive structure. Notice that the non-agentive group in (31) is comprised of what Bhatt & Embick (2003) categorize as "ingestive verbs" and what Pylkkänen (2002; 2008) views as "static" verbs.[20]

(30)

Agentive transitive roots		*Lexical causatives*	
ilk-	'read x'	ilk-hi	'make y read x'
ssis-	'wash x'	ssis-ki	'make y wash x'
kkak-	'cut x (e.g., hair)'	kkak-i	'make y cut x (e.g., hair)'
ssel-	'chop x'	ssel-li	'make y chop x'
ttut-	'graze x'	ttut-ki	'make y graze x'
kal-	'sharpen/grind/plow x'	kal-li	'make y sharpen/grind/plow x'

(i) Yenghi-ka ai-eykey chak-ul ppali ilk-hi-ess-ta.
Yenghi-Nom child-Dat book-Acc quickly read-LEX.CAUS-Past-Decl
'Yenghi quickly [made the child read the book].'
*'Yenghi made [the child read the book quickly].'

(i) displays a single event (i.e., single *v* in the structure) where all the participants belong to (section 1.1). The adverb modification of the causative predicate in (i) thus naturally yields the interpretation that the caused action of reading takes place quickly as well. I speculate that this may be responsible for Kim (1998) and Son (2006)'s interpretation about (i). The fact that the high scope of 'quickly' carries over to the embedded caused action, however, does not mean that 'quickly' can modify the action of reading to the exclusion of the causation portion. The unambiguity of (i) becomes clearer when contrasted with its productive causative counterpart. Only with the productive causation can the reading event alone take place 'quickly':

(ii) Yenghi-ka ai-eykey chak-ul ppali ilk-keyha-ess-ta.
Yenghi-Nom child-Dat book-Acc quickly read-SYN.CAUS-Past-Decl
'Yenghi made [the child read the book quickly].'
?'Yenghi quickly [made the child read the book].'

Interestingly, in (ii) because the adverb modification of the separate embedded event is so salient that the modification of the causative predicate seems difficult to achieve.

[20] Except for the perception roots (i.e., *po-* 'see', *al-* 'know') in (31), the roots in the non-agentive group are in fact ambiguous between eventive (e.g., *ip-* 'put on') and stative (e.g., *ip-* 'wear') readings when used on their own. When lexically causativized, however, they are unanimously stative.

(31)

Non-agentive transitive roots		*Lexical causatives*	
po-	‘see x’	po-i	‘show y x’
al-	‘know x’	al-li	‘inform y of x’
mek-	‘eat x’	mek-i	‘feed y with x’
ip-	‘wear x (e.g., clothes)’	ip-hi	‘dress y with x (e.g., clothes)’
sin-	‘wear x (e.g., shoes)’	sin-ki	‘put x (e.g., shoes) on y’
ssu-	‘wear x (e.g., hat)	ssuy-wu	‘put x (e.g., hat) on y’
cha-	‘wear x (e.g., bracelet)’	chay-wu	‘put x (e.g., bracelet) on y’
an-	‘hold x on arms’	an-ki	‘put x on y’s arms’
ep-	‘hold x on back’	ep-hi	‘put x on y’s back’
mwul-	‘hold x in mouth’	mwul-li	‘put x (e.g., pacifier) in mouth’
ci-	‘hold/be in charge of x’	ci-wu	‘impose x on y’
mat-	‘be in charge of x’	mat-ki	‘entrust y with x’

The lexical causatives of transitive roots in both (30)-(31) involve derived ditransitive structures. Recall from section 4.2.1 of chapter 2 that the Causee of (30) is not a full-fledged Agent argument introduced by Voice (cf. Kim 2011 a; b). This conclusion was based on its inability to bind a subject-oriented anaphor (Shibatani 1972; 1973a; 1973b), and the impossibility of modification by agent-oriented participials. The relevant examples are repeated below in (32)-(33), respectively:

(32) Yenghi$_i$-ka John$_j$-eykey casin$_{i/*j}$-uy chak-ul ilk-hi-ess-ta
Yenghi$_i$-Nom John$_j$-Dat self$_{i/*j}$-Gen book-Acc read-LEX.CAUS-Past-C
‘Yenghi made John read her book.’

(33) Yenghi$_i$-ka ai$_j$-eykey kyokwase-lul mitcwul-ul chye.ka-mye$_{i/*j}$
Yenghi-Nom child-Dat textbook-Acc underline-Acc draw.go-ppl

ilk-hi-ess-ta
read-LEX.CAUS-Past-Comp
‘Yenghi, underlining (the important parts), made the child read the textbook.’

(32)-(33) show that lexical causatives of agentive transitive roots fail in both biclausality diagnostics – binding and agent-oriented participial modification. Thus, it is syntactically

monoclausal – that is, the whole structure involves a single VoiceP. In addition, the idiosyncratic realization of the causative suffix leads us to classify the causatives in (32)-(33) as root-selecting causatives. With regard to the status of the dative Causee in (32)-(33), I presented evidence – the restrictions on co-occurrence with the optional little *v -ecwu* (chapter 3) –, showing that it is located truly root/verb-externally. Taken together, I proposed a structure where the Causee, as an external argument, is introduced by a high Appl head for lexical causatives in (30) (see the structure (36) below).

As for the non-agentive transitive roots in (31), essentially the same patterns are observed with respect to the biclausality tests.

(34) Yenghi$_i$-ka John$_j$-eykey casin$_{i/*j}$-uy os-lul ip-hi-ess-ta
Yenghi$_i$-Nom John$_j$-Dat self$_{i/*j}$-Gen clothes-Acc wear-LEX.CAUS-Past-C
'Yenghi put her clothes on John.'

(35) Yenghi$_i$-ka ai$_j$-eykey pangkus wus-umye$_{i/*j}$
Yenghi-Nom child-Dat beamingly smile-ppl

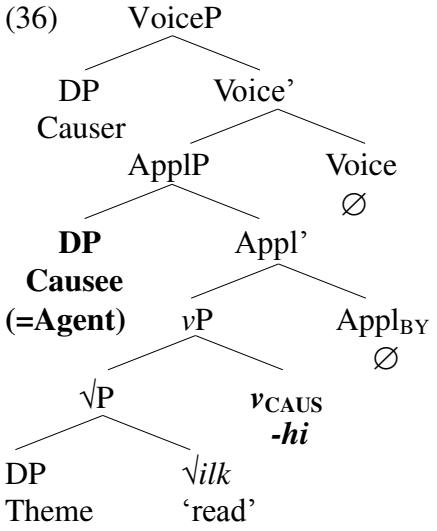
os-lul ip-hi-ess-ta
clothes-Acc wear-LEX.CAUS-Past-Comp
'Yenghi, smiling, dressed the child.'

The parallels between agentive transitive roots (32)-(33) and non-agentive transitive roots (34)-(35) reveal that both types of lexical causatives involve a monoclausal event with a single VoiceP.

While the Causees of the two groups in (30)-(31) exhibit the same behaviors with respect to binding and agent-oriented participial modification, I propose that the syntactic status of the Causees (i.e., the "y" argument) differs. I adopt Kim (1998) and Son (2006) in assuming that a structural distinction is necessary between the two transitive groups

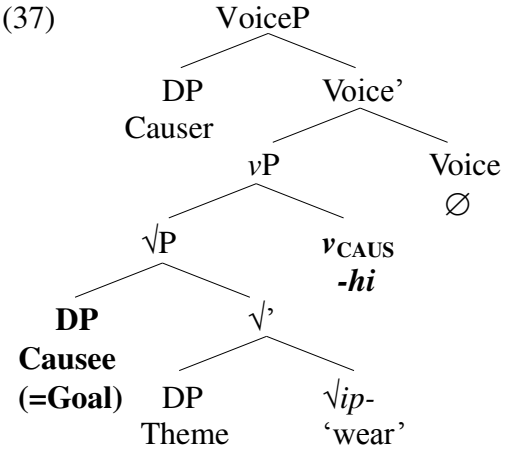
that allow lexical causativization in (30)-(31). In particular, the lexical causatives of non-agentive transitive roots in (31) are equivalent to double object construction (cf. Jung & Miyagawa 2004), where the embedded Causee is a Goal argument, located root-internally, as in (37). Such a hybrid approach to lexical causatives of transitive roots yields the two distinct structures in (36)-(37).

(36)



<*agentive transitive roots*>

(37)



<*non-agentive transitive roots*>

In (36) the Causee is an external argument, while in (37) it is an internal argument. The distinct loci for the Causee argument in (36)-(37) have empirical consequences. Under the current, little *v* analysis of Korean benefactive *-ecwu*, the two lexical causative groups are expected to behave differently with respect to their compatibility with *-ecwu* (section 5 of chapter 3). Specifically, we have seen that attaching the optional benefactive *v -ecwu* to the lexical causative v_{CAUS} is only allowed in (39), but not in (38):

(38) Yenghi-ka ai-eykey chak-ul **ilk**-hi-**(*ecwu)**-ess-ta
Yenghi-Nom child-Dat book-Acc **read**-$v_{\text{LEX.CAUS}}$**-(v_{BEN})-**Past-Comp
'Yenghi made the child read a book.'

(-*Ecwu* is incompatible with the agentive lexical causative stem)

(39) Yenghi-ka ai-eykey os-ul **ip**-hi**-(ecwu)-**ess-ta.
Yenghi-Nom child-Dat clothes-Acc **wear**-$v_{\text{LEX.CAUS}}$-(v_{BEN})-Past-Comp
'Yenghi dressed the child (for the child's benefit).'

(-*Ecwu* is compatible with the non-agentive lexical causative stem, in which case a benefactive interpretation results)

The contrast in (38)-(39) was attributed to the fact that the dative Causee must reside within the c-commanding domain of the little *v -ecwu*. As depicted in (36)-(37), the dative Causee (i.e., Goal) in (39) is c-commanded by the co-head v_{BEN} *-ecwu*, whereas in the dative Causee (i.e., Agent) in (38) is not.

In this section, I present a new argument from depictive secondary modification that corroborates the current proposal. I show that the Causee in (36) is indeed an eventive argument, thus must be base-generated verb-externally. Assuming that depictives are event modifiers (chapter 3), we would expect the Causee in (36) to be able to be take depictive modification, but the Causee in (37) to not be able to take it. This is indeed the case; in (40) we see lexical causatives of the agentive (30) type accept depictive modification of the Causee:

(40) a. Susungnim$_{\text{i}}$-un chwuwun kyewul nal-ey **haksayngtul$_{\text{k}}$-eykey**
master-Top cold winter day-on **pupils-Dat**

panpaci.chalim-ulo$_{\text{i/k}}$ chak-ul ilk-hi-ess-ta.
shorts.dressing-as book-Acc read-LEX.CAUS-Past-Comp
'The master made the pupils read books dressed in shorts on a cold winter day.'

b. Apeci$_i$-ka **ai$_k$-eykey** **mayn.pal-lo$_{i/k}$** canti-lul kkak-i-ess- ta.
father-Nom **child-Dat** **bare.foot-as** grass-Acc trim-LEX.CAUS-Pst-C
'Father made the child trim the grass barefoot.'

In contrast, when the transitive roots embedded under the lexical causative are non-agentive (i.e., stative), no depictive modification of the dative Causee is possible:

(41) a. Yenghi$_i$-ka **ai$_k$-eykey** **mayn.pal-lo$_{i/*k}$** os-ul ip-hi-ess-ta.
Yenghi-Nom **child-Dat** **bare.foot-as** clothes-Acc wear-LEX.CAUS- Pst-C
'Yenghi dressed the child barefoot.'

b. Emma$_i$-ka **atul$_k$-eykey** **camos.chalim-ulo$_{i/*k}$** ku sosik-ul
mother-Nom **son-Dat** **pajamas.dressing-as** the news-Acc

al-li-ess-ta.
know-LEX.CAUS-Pst-C
'Mother informed the son of the news dressed in pajamas.'

The contrast in (40)-(41) is exactly what we expect in an analysis where the dative Causees in (36) are external arguments introduced by an eventive head (i.e., Appl$_{BY}$), whereas the dative Causees in (37) are not. We now have a comprehensive picture of how DP arguments hosted in the specifiers of different types of head pattern with respect to depictive modification.

(42)	*Internal Argument*	*External Argument*			
Specifier of	Root[21]	$Appl_{BY}$	$Appl_{HAVE}$	$Appl_{BEN}$	Voice
Head semantics	stative	eventive	stative	eventive	eventive
Depictive modification	No ex. (41)	Yes ex. (40)	No (Chap. 3)	Yes (Chap. 3)	Yes (Chap. 3)
Context	lexical causative of non-agentive transitive root introducing a Goal/Possessor	lexical causative of agentive transitive root introducing an Agent in Appl	productive applicative introducing a Possessor	productive applicative introducing a Beneficiary (e.g., Chichewa)	Agentive verbs introducing a full-fledged Agent/Causer

In the chart in (42), we observe a correlation between the possibility of depictive modification and whether the head that is responsible for introducing the DP is eventive or not. Interestingly, while the applied Agent differs from the full-fledged Agent argument introduced by Voice in its ability to bind a subject-oriented anaphor and agent-oriented adjuncts, the two verb-external Agents pattern the same in taking depictive modification by virtue of being eventive. This shows that the former two properties are concerned with the size of the structure (i.e., VoiceP vs. high ApplP), whereas the latter has to do with the eventiveness of the associated head.

3. Korean Voice-selecting Causatives

Many earlier studies on Korean productive causatives decompose the causative suffix *-keyha* into two bits – *-key*, which is assumed to be a complementizer, and the verb

[21] See chapter 3, section 3.2.2. The non-agentive roots used under lexical causatives can alternatively be taken to be introduced by P_{HAVE} (Harley 2002, Jung & Miygawa 2004) or low applicative (Pylkkänen 2002; 2008). As indicated at the outset of chapter 3, I remain agnostic about which head introduces the Goal/Possessor in double object construction/lexical causative of non-agentive roots.

-ha ‘do’ (Yang 1976, Shibatani 1973b, Kang 1984, Song 1988, Park 1993, Lee 2007, a.o.). This subsection examines the structure of Korean productive causatives with a particular focus on the predicate *-keyha*. First, I adopt the above treatment of *-keyha*, agreeing that it is in fact further decomposed into two morphemes, each of which projects a separate syntactic head. This conclusion is based two pieces of evidence – the patterns of short negation (Yang 1976, Song 1988, Park 1993, Yeo 2006), and the possibility of replacing *-ha* with its nonactive counterpart, to the exclusion of *-key*. Thus, the structure of productive causatives as originally put forth in chapters 2 and 3 is elaborated.

However, in this section, I show that productive causatives formed by combining the two particles – *key* and *ha* – do select for a VoiceP complement. In particular, I demonstrate that *-keyha* does not select for a nonfinite TP. Consequently, *-key* cannot be an embedded C head, contrary to the widely held assumption about Korean productive causatives. I then identify the categorial status of the two functional heads –*-key* as the Res(ult) head (Ramchand 2008, Folli & Harley 2013), and *-ha* as a second v_{CAUS} head bundled with Voice (in line with the conclusions of earlier chapters).

3.1. Decomposing *-keyha*

While quite a few studies assume that *-keyha* is divided into two morphological units with no explicit justification, Yang (1976) and Song’s (1988) observation (as well as Park 1993 and Yeo 2006) about how *-keyha* interacts with short negation provides empirical support for the decomposition. Before presenting the relevant facts, a brief discussion of Korean negation is in order. Korean has two types of syntactic negation – short and long negation (Kim 2002, Han & Lee 2007, Choi 2013). In short negation, the negative marker

an precedes the lexical verb, as in (43).[22] By contrast, in long negation, the verb is followed by the negation marker *anh*, preceded by the particle *ci*, as in (44).[23]

(43) Yenghi-ka ppang-ul **an** kwuw-ess-ta.
Yenghi-Nom bread-Acc **Neg**bake-Past-Comp
'Yenghi did not bake bread.'

(44) Yenghi-ka ppang-ul kwup-**ci** **anh**-ess-ta.
Yenghi-Nom bread-Acc bake-**CI** **Neg**-Past-Comp
'Yenghi did not bake bread.'

Short negation in (43) is pertinent in this context. Notice that in (43) negation takes scope over the predicate 'bake', despite the linear ordering, where *an* precedes the lexical verb.

Although their intention in presenting the data was not to motivate the decomposition of *-keyha*, Yang (1976) and Song (1988) observe that the short negation marker can intervene between *-key* and *-ha*, as in (45).[24] [25] In (45), the negation scopes over the causative semantics.

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[22] The negation marker can either be realized as *ani* or *an*. The alternation has no phonological relevance. The difference is mainly that using *ani* sounds more formal or archaic. Thus, *an* is the more frequent form.

[23] To be precise, the long negation marker *anh-* results from contracting *an* and the dummy auxiliary *-ha* 'do'. In what follows, I use the contracted form to prevent confusion with the verbalizing *-ha*. This is because some examples below contain both the dummy and verbalizing *-ha* (e.g., (61)-(62)), but I am glossing the latter as HA when the details are immaterial. The question about the category of *ci* has been a long standing one, which I do not get into.

[24] A remark on the orthographic convention is involved. The causative *-key* and *-ha* are spelled with a space in between. The short negation particle *an* precedes the verb, but is written as a free word, as in (43). Therefore, a productive causative negated with short negation such as (45) involves orthographic breaks around Neg. In this dissertation, sentences like (45) are marked with no space, however. The reason is to reflect consistently the theoretical similarity between the second verbalizer *-ha* (see discussion around (49)-(52)) and first verbalizer *-ha*, the latter of which is orthographically adjacent to its nonverbal complements. Both are semantically bleached light verbs, whose meaning depends entirely on their complements.

[25] Because the causative *-keyha* can also denote a permissive causative sense (even without the optional *-ecwu* following the productive causative suffix, as discussed in chapter 3), (45) is ambiguous between the causative and permissive interpretations – the property I have been avoiding discussing so far. As expected given the discussion in Key's (2013) chapter 5, the permissive interpretation becomes salient with negation.

(45) Nay-ka Yenghi-eykey ppang-ul kwup-**key-an-ha**-ess-ta.
I-Nom Yenghi-Dat bread-Acc bake-**KEY-Neg-HA**-Past-Comp
'I did not let/make Yenghi bake bread.'

If *-keyha* were one morpheme, there would be no way to explain how the short negation particle *an*, which precedes the verb, must precede the *-ha* portion in (45), but not the whole chunk *-keyha* in (46):

(46) *Nay-ka Yenghi-eykey ppang-ul kwup/kwuwe-**an**-**keyha**-ess-ta.
I-Nom Yenghi-Dat bread-Acc bake-**Neg-CAUS**-Past-C
Intended: 'I did not let/make Yenghi bake bread.'

What the contrast in (45)-(46) suggests is that while *-key* and *-ha* both are necessary to construct productive causatives in Korean, they occupy two different syntactic heads.

Notice that this decomposition of *-keyha* is distinct from the sequence of the fissioned little *v* in (47). In chapter 3, I have argued that (47) involves a verbalizing head that is split into two terminal nodes – the lexical causative little *v -hi* and the optional benefactive little *v -ecwu*.

(47) Yenghi-ka ai-eykey os-ul ip-hi-ecwu-ess-ta.
Yenghi-Nom child-Dat clothes-Acc wear-$v_{\text{LEX.CAUS}}$-v_{BEN}-Past-Comp
'Yenghi dressed the child for the child's benefit.'

Unlike (45), where the short negation marker *an* is inserted between *-key* and *-ha*, the proposed fissioned *v* does not allow it, as in (48a). Rather, *an* must precede the whole verbal complex as in (48b):

(48) a. *Yenghi-ka ai-eykey os-ul ip-hi-**an-**ecwu-ess-ta.
Yenghi-Nom child-Dat clothes-Acc wear-$v_{LEX.CAUS}$-**Neg**-v_{BEN}-Pst-C

b. Yenghi-ka ai-eykey os-ul **an** ip-hi-ecwu-ess-ta.
Yenghi-Nom child-Dat clothes-Acc **Neg** wear-$v_{LEX.CAUS}$-v_{BEN}-Pst-C

The ungrammaticality of (48a) is not surprising, given that negation is a syntactic operation, whereas fission is a postsyntactic morphological adjustment (Halle 1997, Noyer 1997).

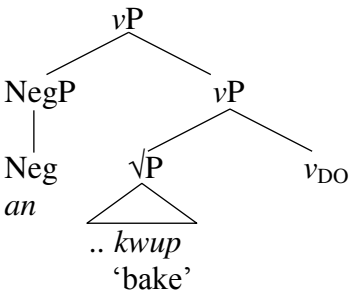
It follows that the insertion of *an* which results in the discontinuity in *-keyha* in (45) must be reflected in syntax. In other words, it must be that *-key* and *-ha* head distinct syntactic projections. The next question is: which heads do each realize? The answer for *-ha* is relatively simple. Above all, Korean *-ha* is a verbalizer known as a light verb meaning 'do' on the first phase. *-Ha* changes the category of nonverbal phrases into verbs. To illustrate, a noun *nolay* 'song' is verbalized by the attachment of *-ha*, as in *nolay-ha* 'sing'.

Second, the distribution of short negation signals the status of *-ha* as a (second) verbalizing head. A widely adopted view is that the short negation particle *an* is adjoined to the projection *v*P (cf. Han & Lee 2007, Choi 2013, building on the original proposal of Kim 2002), as in (49).[26] [27]

[26] *An* undergoes 'neg-cliticization' after the adjunction to *v*P (Han & Lee 2007) to derive the right word order with respect to the Theme argument.

[27] Given the transition of the framework, the attachment site of short negation needs to be reconsidered between *v*P and VoiceP. I assume that it is *v*P. This is because ambiguous interpretations result when restructuring predicates such as *po-*'try' appear with short negation (cf. Sells & Kim 2006). Either the matrix restructuring verb or embedded verb can be negated, with *an* preceding the whole complex predicate. Restructuring predicates lack a functional projection equivalent to VoiceP (Wurmbrand 2001); hence the low-scope interpretation of *an* in this context suggests that it adjoins to *v*P. After all, however, either

(49)



Applying this analysis to the case of the productive causative in (45), repeated below in (50), the morpheme ordering in (50) suggests that *an* is adjoined to *-ha* to the exclusion of the suffix *-key*.

(50) Nay-ka Yenghi-eykey ppang-ul kwup-**key-an-ha**-ess-ta.
I-Nom Yenghi-Dat bread-Acc bake-**KEY-Neg-HA**-Past-Comp
'I did not let/make Yenghi bake bread.'

It is then reasonable to conclude that *-ha*, when appearing with *-key* as a syntactic causative, takes the position of the second verbalizer – v_{CAUS}.

Recall from chapter 2 that the productive causative *-keyha* cannot be followed by a passive suffix *-eci* (i.e., Voice passive head). Consequently, it was concluded that the Korean productive causative is bundled with Voice. Taken together, we can identify *-ha* as v_{CAUS} bundled with Voice. If *-keyha* is a combination of two syntactic heads with *-ha* representing a bundled v_{CAUS}+Voice, it is not surprising to see the alternation in (51)-(52). In (52), the *-ha* portion in its causative counterpart in (51) is substituted with the inchoative predicate *-toy*, leaving the *-key* morpheme intact:

---

location of adjunction motivates the idea that *-keyha* needs to be decomposed.

(51) **Nay-ka** Yenghi-eykey ppang-ul kwup-key-**ha**-ess-ta.
I-Nom Yenghi-Dat bread-Acc bake-KEY-v_{CAUS+}**Voice**-Past-Comp
'I made Yenghi bake bread.'

(52) Yenghi-ka ppang-ul kwup-key-**toy**-ess-ta.
Yenghi-Nom bread-Acc bake-KEY-**become**-Past-Comp
'Yenghi got to bake bread.'

The verb *-toy* means 'become' when used as a main predicate. In (52), *-toy* derives a nonactive counterpart of (51), conveying the meaning 'befall' or 'happen'.[28] The Causer argument introduced by *-ha* in (51) disappears with the change in the suffix from *-ha* to *-toy*. As a result, it is the embedded Agent – Yenghi – that ends up as the sentential subject in (52). The fact that only *-ha* is replaced, but not the *-key* suffix, in (52), follows naturally if *-keyha* consists of two syntactic units, as currently proposed.

Thus far, I have established that *-keyha* is in fact a complex verbal unit comprised of *-key* and a bundled v_{CAUS}+Voice *-ha*. Analyzing the status of *-key* involves a rather substantial discussion, which I turn to in the next subsection.

3.2. *-Key* as a Res(ult) head

Previous studies on Korean *-keyha* claim that *-key* is a complementizer. This would mean that the complement of Korean *-keyha* is TP. However, the causative typology discussed in section 1 classifies the productive causatives in Korean as Voice-selecting. Therefore, in order to identify what *-key* is, we first need to resolve the question of what *-key* selects for, TP or VoiceP. Since no tense marker can be inserted in the caused event complement as in (53), if *-key* takes a TP complement, the relevant TP must be a nonfinite one.

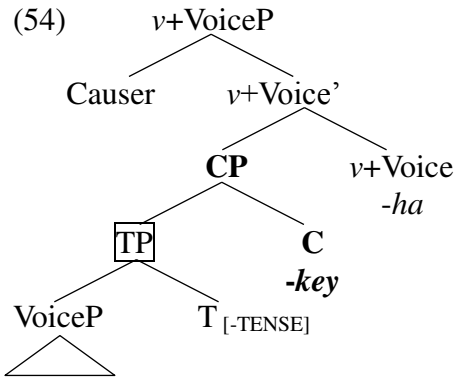
[28] This meaning is similar to what Dubinsky (1997) observes about Japanese passive *-rare*.

(53) Nay-ka Yenghi-eykey ppang-ul kwuw-(*ess)-**key**-ha-ess-ta.
I-Nom Yenghi-Dat bread-Acc bake-(*Past)-**KEY-**HA-Past-Comp
*'I made that Yenghi baked bread.'

Two options are represented in (54) and (55):

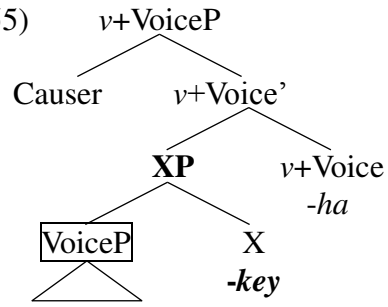
Option #1 ✗

(54)



Option #2 ✓

(55)



[*To be elaborated in* (66)]

If Korean productive causatives were TP-selecting, they would meet the biclausality criteria for Voice-selecting causatives discussed in section 1.2. Therefore, it is necessary to find independent grounds to choose between (54) and (55). One such domain is the licensing of the polarity sensitive item *amwu-(N)-to*. In what follows, I show that the licensing patterns of *awmu-(N)-to* reveal that the caused-event complement cannot be as large as a nonfinite TP, favoring the structure in (55) over (54).

Amwu-(N)-to is known to require a local negative particle (Sells & Kim 2006, Tieu & Kang 2013). Thus, unlike negative polarity items (NPI) such as English *any*, *amwu-(N)-to* cannot be licensed by negation across clausal boundary. (56), where *amwu-* constitutes the embedded Theme argument, is ungrammatical. This is because the negation particle *anh-* is present in the matrix clause, compared to the well-formed (57), where the

negation and *amwu-(N)-to* are clause mates:[29]

(56) *Chelswu-nun [$_{CP}$ Yenghi-ka **amwu-kes-to** mek-ess-ta-ko]
Chelswu-Top Yenghi-Nom **AMWU-thing-TO** eat-Past-Decl-C

malha-ci **anh**-ass-ta.
say-CI **Neg**-Past-Decl
'Chelswu did**n't** say that Yenghi ate **anything**.'

(57) Chelswu-nun [$_{CP}$ Yenghi-ka **amwu-kes-to** mek-ci
Chelswu-Top Yenghi-Nom **AMWU-thing-TO** eat- CI

ahn-ass-ta-ko] malha-ess-ta
Neg-Past-Decl-C] say-Past-Decl
'Chelswu said that Yenghi did**n't** eat **anything**.'

Now let us consider the licensing of *amwu-(N)-to* in a construction that typically involves a nonfinite TP structure. The verb *seltukha-* 'persuade' is known to embed a nonfinite TP as an object control verb (Polinsky 2007, Madigan 2008). As one can see from (58), no tense information can be specified in the embedded clause:

(58) Emma-ka ai$_i$-eykey [$_{TP}$ PRO$_i$ yachay-lul mek-(*ess)]-tolok
mother-Nom child-Dat [vegetable-Acc eat-(*Past)]-TOLOK

seltukha-ess-ta.
persuade-Past-Decl
'Mother persuaded the child to eat vegetables.'

The contrasts in (59)-(60) are parallel with those in (56)-(57), indicating that *amwu-(N)-to* cannot be licensed across a clausal structure containing a nonfinite TP, either.

[29] The distributional properties of *amwu-(N)-to* such as this led Tieu & Kang (2013) to conclude that *amwu-(N)-to* is a negative concord item (NCI) (Giannakidou 2000, Watanabe 2004), rather than an NPI.

(59) *Emma-ka ai$_i$-eykey [$_{TP}$ PRO$_i$ **amwu-kes-to** mek]-tolok
mother-Nom child-Dat [**AMWU-thing-TO** eat]- TOLOK

seltukha-ci **anh**-ass-ta.
persuade-CI **Neg**-Past-Decl
Intended: 'Mother did**n't** persuade the child to eat **anything**.'

(60) Emma-ka ai$_i$-eykey [$_{TP}$ PRO$_i$ **amwu-kes-to** mek-ci
mother-Nom child-Dat [**AMWU-thing-TO** eat-CI

anh]**-**tolok seltukha-ess-ta.
Neg]-TOLOK persuade-Past-Decl
'Mother persuaded the child to **not** eat **anything**.'

Now, if the productive causative construction in Korean also embedded a nonfinite TP, which is taken by the C head *-key* (i.e., (54)), we would expect it to display the same contrast observed in (59)-(60). This, however, is not the case:[30]

(61) Emma-ka ai-eykey **amwu-kes-to** mek-key-ha-ci **anh**-ass-ta.
mother-Nom child-Dat **AMWU-thing-TO** eat-KEY-HA-CI **Neg**-Past-Decl
'Mother did **not** let/make the child to eat **anything**.'

(62) Emma-ka ai-eykey **amwu-kes-to** mek-ci **anh**-key-ha-ess-ta.
mother-Nom child-Dat **AMWU-thing-TO** eat-CI **Neg-**KEY-HA-Past-Decl
'Mother let/made the child **not** eat **anything**.'

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[30] The *let* causative interpretation is salient with the matrix negation in (61). However, it is possible to get the *make* causative reading from (61) as well. One way to ensure the *make* causative interpretation is to substitute the negative particle *anh-* 'didn't' with *mos ha-*'couldn't '– another negative marker with a different mood (Han & Lee 2007).

(i) Emma-ka ai-eykey **amwu-kes-to** mek-key-ha-ci **mos ha**-ess-ta.
mother-Nom child-Dat **AMWU-thing-TO** eat-KEY-HA-CI **Neg**-Past-Decl
'Mother **could not** make the child to eat **anything**.'

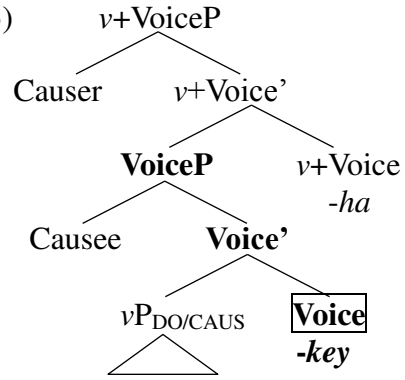
The same results are achieved using the short negation counterparts *an* and *mos*, again with less complication with *mos*.

As originally observed by Choe (1988, chapter 4), in Korean *-keyha* causatives, *amwu-(N)-to* used as the Theme in the embedded caused complement is licensed by negation in the matrix clause as in (61), as well as in (62), where *amwu-(N)-to* and Neg are clause mates.[31] The fact that both (61)-(62) are grammatical, unlike the pair in (59)-(60), shows that the embedded structure of *-keyha* cannot be as large as a nonfinite TP. It follows that *-key* cannot be a complementizer, either. Taken together, the licensing patterns of the polarity sensitive item reveal that the embedded caused event corresponds to VoiceP, as in (55).

In addition to (54)-(55), a third hypothesis is worth considering if Korean productive causatives are Voice-selecting. In particular, one where *-key* itself is a realization of the embedded Voice, which is in turn selected for by *-ha*, as in (63):

Option #3 ✖

(63)



This option is not viable for two reasons. First, the postulation that *-key* occupies

[31] Choe's (1988: 350) original data involve a nominative Causee, not a dative one, unlike (61)-(62). This monoclausal behavior with respect to *amwu-(N)-to* licensing led Choe (1988) to conclude that the productive *-keyha* causatives undergo restructuring in the PF component.

Voice imposes *-key* with the role of introducing the Agent-Causee, as in (63). However, this is not the case, since Korean productive causatives formed with *-keyha* do not require their complement to be a VoiceP. Unaccusative verb structures can be the complement of *-keyha* as well, as in (64)-(65) (Kang 1984, Choe 1988, Park 1993, Park 1994, a.o.). Notice the indirect causative interpretation in (64)-(65):

(64) Chelswu-ka Yenghi-lul kipu-key-ha-ess-ta.
Chelswu-Nom Yenghi-Acc be.pleased-KEY-HA-Past-Comp
'Chelswu made Mary pleased.'

(65) Chelswu-ka mwul-lul kkul-key-ha-ess-ta.
Chelswu-Nom water-Acc $boil_{vi}$-KEY-HA-Past-Comp
'Chelswu made the water boil.'

The acceptability of (64)-(65) shows that *-key* is not an element associated with an external argument. Therefore, it cannot be the realization of the active Voice in (63).[32] It also tells us that Korean productive causatives have flexible selection properties – they may take a structure as large as VoiceP as their complement, but not obligatorily so.

Second, the structure in (63) is also incompatible with the negation patterns discussed in (62), where *-keyha* accommodates a negation particle inside it. The example in (62) involves long negation, differing from the short negation discussed in section 3.1. Unlike short negation, which was assumed to be a case of adjunction, long negation projects a NegP in the derivational spine (Kim 2002, Han & Lee 2007, Choi 2013). This means that

[32] Another related possibility is that *-key* realizes a nonactive Voice with unaccusative bases like (64)-(65), but active Voice with agentive/causative bases as in (63). This, however, raises a question of why the putative Voice head is not overtly spelled out in simple transitive structures where the higher bundled *v*+Voice in (63) is not accompanied. As we will see in (67)-(68), the *-key* suffix is present in the resultative construction, motivating its status as a separate functional head, rather than Voice.

-key can embed a structure that includes a NegP, which triggers the need for *do*-support. A NegP is structurally higher than the projection introducing the external argument (i.e., VoiceP). *-Key* cannot occupy the embedded Voice head as in (63), and simultaneously be higher than NegP. Consequently, *-key* cannot realize the embedded Voice head.

Noteworthy at this point is that the long negation data in (62) suggest that the productive causatives formed with *-keyha* select for a VoiceP only when no negation is involved.[33] In fact, this seems to be the case with other productive causatives that are argued to be Voice-selecting. English *make* causatives (Tubino Blanco 2010), and Japanese productive causatives (Key 2013) also allow a NegP inside the embedded complement (e.g., *John made Mary not eat the vegetables*). Strictly speaking, then, it is more accurate to classify the so-called Voice-selecting causatives as Voice-embedding.[34] In this dissertation, I continue to dub them Voice-selecting, since Neg is not an obligatory part of the basic verb structure. Importantly, the above discussion on *amwu-(N)-to* confirms that the embedded caused event of *-keyha* cannot be a (nonfinite) TP.

Now that we have established that the caused event complement corresponds to VoiceP – that is, when no embedded Neg is involved – one possibility remains. *-Key* heads its own syntactic projection between the embedded VoiceP and the bundled

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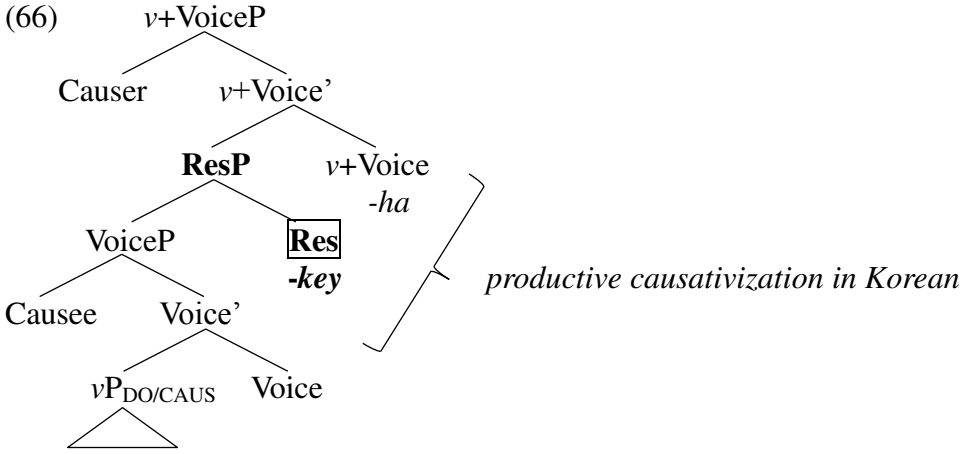
[33] Recall that the long negation particle *anh-* is contracted from *ani-ha* 'Neg-do', with the dummy *do*. A question remains as to where in the structure the dummy *do* is supported in (55). Han & Lee (2007) assumes Neg itself supports the dummy *h(a)* 'do'. Harley (p.c.) suggests two additional possibilities. First, an additional functional projection (e.g., Aspect) maybe present and require the support of a dummy *do* under the first Voice. Second, the embedded Voice supports dummy *do*, in which case, it is overtly realized as *h(a)*. The second possibility is particularly interesting, since it places the Neg head in long negation between the embedded *v* and Voice in (66). This hypothesis, however, predicts that in long negation, the external argument scopes over Neg, contrary to fact. I leave open the question of what triggers *do*-support in embedded long negation in these cases.

[34] Lee (2007) takes the fact that the subject honorific marker *-si* can be embedded under *-keyha* as evidence for a C analysis of *-key*. See, however, Choi & Harley (in prep) that Korean honorification can be located as low as Voice, as well as high in T.

v_{CAUS}+Voice *-ha*, as in (66). Updating the second hypothesis depicted in (55), I suggest categorizing *-key* as a Res(ult) head (Ramchand 2008):

Option #2 ✓

(66)



A motivation for this label for *-key* comes from the fact that the particle is observed elsewhere in the language – namely, in the resultative construction:

(67) Yenghi-ka [sikthak-ul kkaykkusha-**key**] takk-ass-ta.
Yenghi-Nom [table-Acc clean-**KEY**] wipe-Past-Comp
'Yenghi wiped the table clean.' (adapted from Son 2008: 90)

Son (2008) argues that the embedded result state that the 'table is clean' is selected as a complement of the predicate *takk* 'wipe' in (67).

Considering that resultatives and causatives both involve a cause and a result component, it is not surprising that the same particle *-key* is implicated in both resultatives and causatives. While the former foregrounds the achieved result, the latter highlights the causing event that brings about the result. It is thus natural to view the verbal suffix *-key* as realizing the Res(ult) head that Ramchand (2008) proposes to be one

of the syntactic universals.[35] If the current proposal about *-key* is on the right track, the presence of the Res head in (66) implies that Res not only forms a small clause structure on the first phase (Ramchand 2008, Folli & Harley 2013), but it can also appear on the second phase.

A difference between the *-key* in a resultative like (67) and that in the productive causative in (66) is the eventuality type of the complement. In fact, *-key* in the resultative construction can be attached to eventive predicates as in (68), as well as stative ones like (67) (Son 2008). This further suggests the compatibility of the Res head with eventive complements.[36]

(68) Chelswu-ka [mok-i **swui**-key] solichi-ess-ta.
Chelswu-Nom [throat-Nom **get.hoarse**-KEY] scream-Past-Comp
'Chelswu screamed himself hoarse.' (adapted from Son 2008: 91)

To recap, building productive causatives in Korean involves two syntactic heads – Res and bundled v_{CAUS}+Voice, as in (66). This requirement is peculiar even for morphologically rich languages. Hiaki Voice-selecting productive causatives employ the causative suffix *-tua* (section 1.2) with no Res morpheme. The same is true with Japanese *-sase*. An ensuing question about Voice-selecting productive causatives that do not accompany an overt Res affix is whether the Res head is syntactically absent, or if Res is syntactically active but phonologically null. I leave open this question and the potential

[35] Harley (p.c.) points out that the Res head may also be equivalent to what some other researchers have dubbed a Pred(ication) head (Bowers 2002, Adger & Ramchand 2003).

[36] It is a controversial issue what the syntactic status of the result component is in Korean resultatives. Some researchers consider it a complement (Kim 1999, Kim & Maling 1997, Wechlser and Noh 2001), others an adjunct (Hong 2004, Shim & den Dikken 2007). A third, hybrid approach is that some result clauses function as a complement (e.g., (67)), whereas others (e.g., (68)) are adjuncts (Son 2008). This question is beyond the scope of this project.

empirical implications of further dividing the Voice-selecting causatives into two groups.

4. Conclusions and Remaining Questions

The two types of Korean causatives I have addressed in this chapter are distinguished by the size of the structure embedded under the causative head. I have shown that Korean lexical causatives and productive causatives exemplify root-selecting and Voice-selecting causatives, respectively.

I have attempted to account for the questions that arise by locating the two Korean causatives in a broader typological context. Some novel findings of this chapter are as follows. First, I have shown that Korean lexical causative suffixes are a realization of the first verbalizing head (section 2.1). Second, I have presented new evidence – depictive secondary modification – for treating the Causee associated with agentive transitive roots in lexical causatives as an eventive external argument (section 2.2). Third, I have motivated an analysis in which Korean productive causatives are truly Voice-selecting, not TP-selecting (section 3.2). In so doing, I have provided evidence for decomposing the causative predicate into two syntactic projections headed by *-key* (i.e., Res) and *-ha* (i.e., v_{CAUS} bundled with Voice) (section 3.1).

The current proposal about Korean productive causatives where the verbal suffix *-key* is analyzed as a Res head (Ramchand 2008) raises a question about the completion of the caused event. Specifically, as Kang (1984) and Park (1994) have pointed out, Korean productive causatives do not guarantee that the caused event is successfully carried out:

(69) Chelswu-ka Yenghi-eykey ppang-ul kwup-**key**-ha-ess-ciman,
Chelswu-Nom Yenghi-Dat bread-Acc bake-**Res**-HA-Past-but

Yenghi-nun ppang-ul kwup-ci anh-ass-ta.
Yenghi-Top bread-Acc bake-CI Neg-Past-Comp
#'Chelswu made Yenghi bake bread, but Yenghi did not bake bread.'

Although it is not addressed in this dissertation, Korean also has the option of marking the embedded Causee as accusative. In such case, denying the caused result as in (70) leads to more of a contradiction (Kang 1984, Park 1994):

(70) ?#Chelswu-ka Yenghi-**lul** ppang-ul kwup-key-ha-ess-ciman,
Chelswu-Nom Yenghi-**Acc** bread-Acc bake-Res-HA-Past-but

Yenghi-nun ppang-ul kwup-ci anh-ass-ta.
Yenghi-Top bread-Acc bake-CI Neg-Past-Comp
#'Chelswu made Yenghi bake bread, but Yenghi did not bake bread.'

Two questions stem from the pair in (69)-(70). First, what is the reason for the different case markings on the Causee? Second, why does the presence of a Res head sometimes express the successful achievement of the caused result, while not in others? I provide my speculation on each question.

Although this dissertation does not deal with accusative Agent Causees, the current analysis is compatible with the conclusions of previous studies that concentrate on the case alternations on the Causee (Kang 1984, Park 1993, Park 1994, a.o.). Kang's (1984) insight is particularly relevant here. Kang (1984) argues that the variable case marking on the part of the Agent-Causee reflects the volition of the argument. Thus, while a dative Causee has a control over the caused event, an accusative Causee does not. In this sense, the contrast in (69)-(70) follows from the fact that the dative Causee is interpreted to have the option to refuse or comply with the direction given by the Causer, which the

accusative Causee lacks. This insight conforms to the current analysis of the dative Causee. Since it is an argument of (the embedded) Voice, it is not surprising that the dative Causee, as a volitional entity, may choose to carry out the action or not.

The following question then is what is the syntactic locus of the accusative Causee in (70)? If the accusative Causee is not an argument of Voice, unlike the dative Causee, a possible position seems to be Spec-*v*P. While I leave the development of this hypothesis for future work, it is worth noting the contrast in (71)-(72). (71) is taken from chapter 2 which involves the interaction between causative and applicative in Korean:

(71) Emma-ka Mary-eykey tongsayng-eykey ppang-ul
mother-Nom Mary-Dat brother-Dat bread-Acc

kwuw-ecwu-key-ha-ess-ta.
bake-APPL-Res-HA-Past-Comp
'Mother made [Mary bake bread for brother].'

The same construction is not acceptable with an accusative Causee in (72):

(72) ?*Emma-ka Mary-lul tongsayng-eykey ppang-ul
mother-Nom Mary-Acc brother-Dat bread-Acc

kwuw-ecwu-key-ha-ess-ta.
bake-APPL-Res-HA-Past-Comp
'Mother made [Mary bake bread for brother].'

According to the conclusions from chapters 2-3, the dative Possessor argument in (72) is introduced by high Appl, located higher than *v*P. Given this, the hypothesis that the accusative Causee is an argument of *v*P might explain the ungrammaticality of (72). Along with the argumentation provided in chapters 2, the ill-formedness of (72) can be

connected to placing the high Appl layer under *v*P layer. However, a postulation that the verbalizing head, which marks the semantic eventuality, can introduce a syntactic argument raises a new set of questions within the current set of assumptions, which I leave for future exploration.

Let us now turn to the next question – the presence of a Res head that does not guarantee the caused result. Interestingly, as is noted by Son (2008), not all resultatives entail that the result is actually attained:

(73) Inho-ka mwul-ul pay-ka theci-key masi-ess-ta.
Inho-Nom water-Acc stomach-Nom explode-KEY drink-Past-Comp
'Inho drank water too much / to the degree that his stomach could explode.'

(74) Chelswu-nun Yenghi-ka nemeci-key himkkes mil-ess-ta
Chelswu-Top Yenghi-Nom fall-KEY with force push-Past-Decl
'Chelswu pushed Yenghi with force so that she would fall down.'
(Son 2008: 97)

Son (2008) attributes this unachieved result to the property of eventive resultatives. She notes that eventive complements of resultatives can express multiple interpretations such as degree (73) and purpose (74), in addition to a true resultative interpretation.

However, the eventiveness of the complement does not appear to be responsible for the cancellability of the result in the examples above. We can see this from considering (75) below, where the embedded predicate denotes a change-of-state, which is an event, but is not cancellable:

(75) #Cheslwu-ka mwul-ul kkul-key-ha-ess-una, mwul-i kkul-ci
Chelswu-Nom water-Acc $boil_{vi}$-Res-HA-Past-but, water-Nom $boil_{vi}$-CI

anh-ass-ta.
Neg-Past-Decl
#‘Chelswu made the water boil, but the water did not boil.’

In addition, Lee (2012) remarks that stative resultatives such as (76) are ambiguous between resultative and purposive interpretations. This implies that the cancellation of their result should in principle be possible:[37]

(76) Chelswu-ka ku sayngsen-ul pasakha-key kwu-ess-ta.
Chelswu-Nom the fish-Acc crispy-KEY bake-Pst-Dec
‘Chelswu baked the fish crispy.’ (resultative interpretation)
‘Chelswu did an action to bake the fish crispy.’ (purposive interpretation)
(Lee 2012: 55)

At this point, I do not know what causes the embedded result to be achieved in some cases, but not in others, in Korean. As Son (2008) notes, some pragmatic factors appear to be at work. The question remains, however, since their causative and resultative counterparts in some other languages (e.g., English) do seem to entail that the caused event/state is brought about.

[37] To some speakers, the purposive interpretation is not available with the stative resultatives such as (76). Therefore, to these speakers, cancellation of the result in (76) is impossible.

CHAPTER 5. VERB-SELECTING CAUSATIVES

This chapter investigates two types of verb-selecting causatives (Pylkkänen 2002; 2008, Tubino Blanco 2010, Tubino Blanco & Harley 2011, Harley 2013a, Key 2013) and the selectional variation they display. Our current definition of verb-selecting causatives established in chapter 4 is that they are productive causatives whose caused-event complement lacks a Voice projection. As a consequence, they exhibit monoclausality with regard to binding and modification by agent-oriented participials. In this chapter, I evaluate this hypothesis about verb-selecting causatives by examining the behaviors that Hiaki verb-selecting *-tevo* and its counterpart in Chicheŵa exhibit with respect to embedding unaccusative verbs.

I start off by drawing attention to the selectional restrictions imposed by the Hiaki indirect causative suffix *-tevo* (section 1). I argue that Hiaki indirect causatives have an animacy requirement for the semantic Causee, besides requiring their complement to be a *v*P (Tubino Blanco 2010, Harley 2013a, Tubino Blanco & Harley 2011) (section 2). In the process, I discuss the parallels and differences between Hiaki verb-selecting *-tevo* and passives, both of which had been claimed to lack a semantic subject (Tubino Blanco & Harley 2011). I show that Hiaki *-tevo* is truly verb-selecting, whose understood Causee has no syntactic presence. This finding is consistent with the earlier analyses of Hiaki *-tevo* (Tubino Blanco 2010, Harley 2013a, Tubino Blanco & Harley 2011). However, I depart from Tubino Blanco & Harley (2011) by proposing that a structural position is reserved for the semantic subject of Hiaki passives, despite its phonologically null status. The fact that Hiaki *-tevo* is truly *v*P-selecting with no syntactic position for the

semantic Causee yet requires its semantic Causee to be an animate entity calls for a refinement of the previous analyses of Hiaki *-tevo*. I propose to employ the lexical property [+m] on the selected *v*P to encode the animacy restriction of the semantic Causee (Reinhart 2002, Key 2013). As a consequence, we see that Hiaki *-tevo* merges with a particular set of *v*P complements – namely, those with an interpretable [+m] feature associated with their semantic subject.

I then discuss the selectional variation between Hiaki indirect causatives and Chicheŵa oblique causatives (section 3). I show that the variation between these two verb-selecting causatives can be captured if one takes into consideration two additional pieces of information – the verbal eventuality of, and the presence of the [+m] feature on, the selected *v*P. In particular, the two causatives differ on which type of *v*P complements the [+m] feature is required. Hiaki *-tevo* takes *v*Ps possessing a [+m] feature regardless of the kind of eventuality they describe. In contrast, the Chicheŵa oblique causative head *-its* merges with agentive/causative *v*Ps only – $vP_{DO/CAUS}$ – with a [+m] feature. Finally, I present another type of verb-selecting causative in Chicheŵa, also formed with the underspecified causative suffix *-its*: simple productive causatives of unaccusative verbs. Hiaki *-tevo* does not form this type of causative.

1. The Puzzle of Hiaki *-tevo*

As introduced in section 1.3 of chapter 4 and shown in previous analyses (Tubino Blanco 2010, Tubino Blanco & Harley 2011, Harley 2013a), Hiaki indirect causatives involving *-tevo* select for *v*P complements. We have observed that Hiaki *-tevo* exhibits monoclausal properties in binding and modification by agent-oriented participials,

behaving like root-selecting causatives (see section 1.3 of chapter 4). On the other hand, verb-selecting causatives pattern with Voice-selecting causatives in that both productively causativize an embedded verb. Indeed, Hiaki *-tevo* can embed a lexical causative as in (1), distinguishing itself from root-selecting lexical causatives:

(1) a. Nee kari-**te-tevo**-k.
I house-**LEX.CAUS**-**INDIR.CAUS-**Perf
'I had a house built (by somebody).' (Harley 2013a: 51)

b. Maria uka caro-ta wee-**tua**-**tevo**-k.
Maria the car-Acc go-**LEX.CAUS-INDIR.CAUS**-Perf
'Maria had (somebody) drive the car.'

The conclusion is that verb-selecting causatives are a type of productive causative which selects for an already verbalized complement but without a layer introducing an intermediate external argument of Voice.

Our current definition of verb-selecting causatives makes a prediction. Without any additional assumptions, verb-selecting *-tevo* is expected to be able to embed unaccusative verbs complete with their single argument. This is so because the single argument of an unaccusative verb is an internal, not external, argument. This, however, is not the case:

(2) *In maala uka caro-ta/Maria-ta **wee-tevo**-k.
my mother the car-Acc/Maria-Acc **go.sg-INDIR.CAUS**-Perf
Intended: 'My mother made the car/Maria go.'

To make matters more complicated, embedding unaccusative roots under *-tevo* is not always ruled out. As was observed by Tubino Blanco (2010), and Tubino Blanco & Harley (2011), unaccusative verbs can sometimes appear with *-tevo*, as in (3):

(3) In maala aman **kat-tevo**-k
my mother there **go.pl-INDIR.CAUS**-Perf
'My mother had (the people) go.'

The questions are then: (i) why does embedding an unaccusative under *-tevo* lead to ungrammaticality in (2)?; and (ii) why are other unaccusative structures compatible with *-tevo*, as in (3)?

In what follows, I show that Hiaki *-tevo* is *v*P-selecting, corroborating the claims made in a series of works by Tubino Blanco (2010), Tubino Blanco & Harley (2011), and Harley (2013a). I propose that *-tevo* also imposes additional requirements for its complement. Thus, Hiaki *-tevo* seeks a *v*P whose animate semantic subject is syntactically suppressed, regardless of the type of eventuality it denotes. In section 2, I present new evidence that Hiaki *-tevo* is truly *v*P-selecting, based on the parallels and contrasts with the passive *-wa* (sections 2.1 and 2.2). In so doing, I show that *-tevo* is sensitive to the animacy of the semantic subject of its complement *v*P, rather than the eventuality type of its syntactic complement. This is supported by two facts – (i) *-tevo* can appear with stative perception verbs and psych verbs, as long as their [+human] subject is absent (section 2.5); but (ii) it cannot co-occur with unaccusative verbs which are inherently incompatible with an animate internal argument (section 2.4). I then discuss some apparent counterexamples (section 2.6).

2. Proposal: Selection by Hiaki *-tevo*

2.1. Parallels between *-tevo* and *-wa* and the semantic presence of the Causee

Previous accounts of Hiaki *-tevo* (Tubino Blanco 2010, Tubino Blanco & Harley 2011,

Harley 2013a) have engaged in a close comparison with its Voice-selecting counterpart *-tua* (section 1.2, chapter 4). First, while the productive, Voice-selecting *-tua* requires the presence of an Agent-Causee, the causatives led by *-tevo* obligatorily exclude the Agent-Causee argument, as in (4)-(5):

(4) Maria **hitevi-ta** Santos-ta hitto-**tua**-k.
Maria **doctor-Acc** Santos-Acc cure-**CAUS-**Perf
'Maria made the doctor treat Santos.'

(5) Inepo Santoh-ta hitto-**tevo**-k.
I Santos-Acc treat.medically-**CAUS**-Perf
'I had Santos treated (for a medical condition).' (Harley 2013a: 51)

Second, Voice-selecting *-tua* involves two binding domains, whereas verb-selecting *-tevo* contains one:

(6) Nee Art-ta **ne/*ino** sua-tua.
I Art-Acc **1sg/1.refl** care.for-CAUS
'I make Art take care of me.' Tubino Blanco et al. (2009: 88)

(7) Inepo **ino/*nee** sua-tevo.
I **myself/me** take.care-CAUS
'I'm having myself/me taken care of.'
adapted from Tubino Blanco (2010: 258)

Finally, different arguments become the derived subject when *-tua* and *-tevo* causatives are passivized. With *-tua* in (8), the Agent-Causee undergoes A-movement to the subject position, while it is the Theme argument that does so in (9):

(8) **Hitevi** Santos-ta hitto-tua-wa-k.
doctor Santos-acc cure-CAUS-PASS-Perf
'The doctor was made to treat Santos.'

(9) **Santos** hitto-tevo-wa-k.
Santos treat-CAUS-PASS-Perf
'Santos was made to be treated (by somebody).' (Harley 2013a: 51)

These structural contrasts between *-tua* and *-tevo* led Tubino Blanco and Harley to conclude that with *-tevo*, the intermediate Causee which carries out the action of the embedded verb is syntactically absent.

Tubino Blanco & Harley (2011) further argue that the subject of the verb selected for by *-tevo* is only semantically present, based on the parallels with Hiaki impersonal passives marked by *-wa*. In Hiaki, a group of unaccusative roots exhibit suppletion, depending on the number of the associated internal argument, as in (10)-(11).

(10) Uu uusi aman **weye**.
the child there **go.sg**
'The child is going.'

(11) Ume uusim aman **kaate/*weye**.
The children there **go.pl/*go.sg**
'The children are going.'

As was discussed in (3), unaccusative roots are allowed under *-tevo* in certain contexts. In (12), the internal argument associated with the root is obligatorily omitted. The same is observed with the passives of unaccusatives in (13), at least on the surface. Another interesting property they share is that under both *-tevo* in (12) and the impersonal passive in (13), a suppletive root must take its plural form.

(12) In maala aman **kat/*wee-tevo**-k.
my mother there **go.pl/*go.sg-INDIR.CAUS**-Perf
'My mother had (the people) go.'

(13) Aman **kat/*wee-wa**.
there **go.pl/*go.sg-PASS**
'(People) are going there.'

Tubino Blanco & Harley (2011) take this as a default agreement with the semantic subject, unspecified for number. Tubino Blanco & Harley (2011) thus consider that both indirect causatives and passives involve a semantic subject that is syntactically absent.

In the next subsection, I present new evidence that *-tevo* involves a syntactically absent but semantically active subject, supporting the above conclusion. However, I argue that the same conclusion cannot be drawn for the passive construction. The semantic subject of passive *-wa* in Hiaki is in fact syntactically present. This syntactically present semantic subject of passives is phonologically null, however, so it is never overtly realized. On the surface then, indirect causatives and passives appear as if they both lack the associated subject argument entirely. For expository purposes, it is necessary to distinguish the terms 'syntactic presence/absence', 'semantic presence', and 'implicit presence' employed in this chapter. When an argument is 'syntactically present', this means that the argument at issue appears in the structural representation of the construction. There are two types of 'syntactically present' arguments – one that has a phonological realization (i.e., overt DP arguments) and the other that is only 'implicitly present' (i.e., covert/ phonologically null arguments). I will show that the external argument of passives in Hiaki belongs to the latter type – the argument is syntactically

present but phonologically null, being encoded as a PRO in the structure. In contrast, 'syntactic absence' of an argument refers to a case where the relevant argument does not have a structural position in syntax. The Causee of *-tevo* illustrates such a case. The Causee is understood to exist because of the lexical content of the verb embedded under the causative predicate, but it is not projected in the causative structure. However, the Causee of *-tevo* is 'semantically present', understood as an unmentioned third party that performs the action denoted by the embedded verb. As I will show in section 2.2, while a syntactically implicit argument (e.g., the external argument of the passive *-wa*) and an argument that is only semantically present (e.g., Causee of *-tevo*) both have no overt phonological instantiation, the two differ in a crucial respect. Only the former can serve various syntactic roles that overt DP arguments do, motivating a distinct treatment of the above two types of null participants.

2.2. Contrasts between *-tevo* and *-wa* and the specification of animacy

While Hiaki indirect causatives and passives both exhibit a default agreement between the suppletive root and its logical subject, it is necessary to distinguish the two constructions with regard to the status of the omitted subject. Binding and control patterns reveal that Hiaki passives do involve a syntactic, though implicit, external argument. This is not the case with indirect causatives, however.

2.2.1. Ability to control

Escalante (1990b) proposes that the external argument of the passive *-wa* is syntactically active based on its ability to be modified by a purpose clause in an impersonal passive, as

in (14).

(14) Aman bwiik-**wa**, ume ili uusim mahta-vetchi'ivo.
there sing-**PASS**, the little children teach-for
'Singing is being done there to teach the children.' (Escalante 1990b: 135)

(15) Aman hiva va-vamih-**wa**, lauti heela pahko-u
there always red-hurry-**PASS**, early ceremony-to

yahi-vetchi'ivo.
arrive.pl-for
'(People) always hurry in order to make it to the ceremony on time.'

Even though (14)-(15) do not contain an overt subject carrying out the action of 'singing' in (14) or 'hurrying' in (15), compatibility with a subordinate purpose clause suggest that there exists a null syntactic argument that is responsible for the intention expressed in the purpose clause.

The patterns are in sharp contrast with the semantic subject of the *v*P complement of *-tevo*. The understood Causee, which performs the action of the embedded verb, cannot control the purpose clause in (16)-(17):[1]

(16) Uu ya'ut bwik-**tevo**, ume ili uusim mahta-vetchi'ivo.
the leader sing-**CAUS**, the little children teach-for
'The leader makes (people) sing to teach the children.'

(The purpose clause refers to the intention of the matrix Causer, not the people singing.)

(17) #Uu ya'ut hiva va-vamih-**tevo**, lauti heela pahko-u
the leader always red-hurry-**CAUS**, early ceremony-to

[1] (17) is an instance of semantic infelicity that follows from linking the purpose clause to the matrix Causer. Notice the similar effect in (23).

yahi-vetchi'ivo.
arrive.pl-for
'The leader makes (people) hurry to make it to the ceremony on time.'

(The purpose clause refers to the intention of the matrix Causer, not the people hurrying, resulting in semantic infelicity of the sentence.)

The sentences in (16)-(17) are not acceptable, unless the Causee – those who are made to sing and those who are made to hurry – is explicitly mentioned, in which case the Voice-selecting *-tua* must replace *-tevo*.[2]

2.2.2. Compatibility with agent-oriented participials

The distinct behaviors of Hiaki passives and indirect causatives in controlling a purpose clause suggest that the logical subject of the two constructions qualitatively differs. The silent subject of passives has a syntactic presence, which the silent Causee of indirect causatives does not. An ensuing question is where the implicit syntactic argument of passives is located. In answering this question, it is helpful to consider the compatibility of the implicit subject with agent-oriented participials. It is known that the implicit argument of a passive can be modified by agent-oriented adverbs such as 'deliberately' as in (18a). However, as Maling (2006) points out, speakers find it degraded to connect the participial in (18b) to the Agent of a passive:

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[2] (i) Uu ya'ut$_i$ **yoemia$_k$-ta** bwik-**tua**, ume ili uusim mahta-vetchi'ivo$_{i/k}$.
the leader **people-Acc** sing-**CAUS**, the little children teach-for
'The leader makes people sing to teach the children.'

(ii) Uu ya'ut hiva **yoemia$_i$-ta** va-vamih-**tua**, lauti heela pahko-u
the leader always **people** red-hurry-**CAUS**, early ceremony-to

yahi-vetchi'ivo$_i$.
arrive.pl-for
'The leader makes people hurry to make it to the ceremony on time.'

(18) a. The boat was sunk deliberately. (Bhatt & Pancheva 2006: 557)

b. ?*Laughing, the children were silenced by a glance from the teacher.
(Maling 2006: 204)

In investigating the new impersonal passive in Icelandic, Maling (2006) argues that the compatibility of the silent subject argument with the participial suggest that it is in fact a null subject of an active sentence.[3] In the present terms, the null subject in these Icelandic structures must be located in Spec-Voice.

Consider now how Hiaki *-wa* interacts with agent-oriented participials. Surprisingly, the implicit subject of *-wa* can be modified by an agent-oriented participial in an impersonal passive:

(19) Kusisia a'acheka, aman yi'i-**wa**-k.
loudly laughing there dance-**PASS**-Perf
'People were dancing, laughing loudly.'

(20) Kaa haiti hiaka, aman to'o-**wa**-k.
not dirty making sounds, there lie down.pl-**PASS**-Perf
'People were lying down, not making noise.'

This is in contrast to the behaviors of the Causee in indirect causatives. Recall from section 1.3 of chapter 4 that agent-oriented participials cannot be attached to modify the semantic Causee argument of *-tevo*.

[3] Maling (2006) notes that participials like in (18b) are subject-oriented, rather than agent-oriented. See section 1.2 of chapter 4, however, for a discussion that the diagnostic can be properly employed to test an argument of Voice.

(21) Uu kosineu$_i$ si bwiikaka$_{i/*k}$ muunim bwasa'a-**tevo**-k.
the cook very singing beans cook-**CAUS**-Perf
'The cook$_i$, very singing$_{i/*k}$, had the beans cooked.'

(22) Ume emo chupakame$_i$ si a'acheka$_{i/*k}$ yi'i-**tevo**-k.
the married couple very laughing dance-**CAUS**-Perf
'The married couple$_i$ made (people$_k$) dance, laughing$_{i/*k}$.'

(23) #Uu maala$_i$ kaa haiti hiaka$_i$ to'o-**tevo**-k.
the mother not dirty making sounds$_i$ lie down.pl-**CAUS**-Perf
'The mother$_i$ made (people$_k$) lie down, not making noise $_{i/*k}$.'

In (23), the participial 'not making noise' is a more natural modifier of the semantic Causee, who is asked to lie down. Because the structure does not allow the agent-oriented participial to be associated with the semantic Causee, however, a native speaker is forced to connect the participial to the matrix Causer, which results in semantic infelicity. With more neutral agent-oriented participials in (21)-(22), only the matrix Causer accept the adjunct modification. Thus, in all (21)-(23), the logical subject of the embedded verb – the semantic Causee – cannot be modified by the participials.

2.2.3. Binding

Another piece of data that complies with Maling's (2006) criteria for impersonal passives is observed by Escalante (1990b). In (24), the Theme argument can be bound by the implicit external argument of *-wa*:[4]

(24) tu'isi **emo** ania-**wa**.
well **themselves/each other** help-**PASS**.
'They are helping each other/themselves very well.' (Escalante 1990b: 99)

[4] Hiaki passives do not allow the external argument in the form of a *by*-phase (Escalante 1990a).

This suggests that the structure of (24) contains a syntactic argument that can function as the binder.

This, however, is not the case with *-tevo*, as shown in (25a). In order to rescue the ungrammaticality, one either needs to switch the plural anaphor to *yee* 'people', as in (25b) or use a plural Causer, as in (25c). Recall from section 1.3 in chapter 4 that *-tevo* exhibits a single binding domain, which explains the ability of the Causer to bind the plural anaphor in (25c).

(25) a. *Uu kovanau tui'isi **emo** ania-**tevo**.
the governor well **selves** help-**CAUS**
Intended: 'The governor is having (people) help themselves.'

b. Uu kovanau tui'isi **yee** ania-**tevo**.
the governor well **people** help-**CAUS**
The governor is having people helped.

c. **Ume kovanaum** tui'isi **emo** ania-**tevo**.
the governors well **selves** help-**CAUS**
'The governors are having themselves helped.'

All the contrasts above suggest that the effects of the implicit subject come from a syntactic projection which is contained in Hiaki passives but not in the complement of indirect causatives – namely, VoiceP. Two conclusions can be drawn: (i) Hiaki indirect causatives are truly *v*P-selecting, with the semantic Causee syntactically absent; (ii) The semantic Causee in Hiaki passives is syntactically present as a null argument, located in Spec-VoiceP.[5]

[5] At this point, one will probably wonder whether the so-called passives in Hiaki are true passives, given

2.3. The structure of Hiaki *-wa* and *-tevo* revisited

Taking into account the parallels and differences between the passive *-wa* and the indirect causative *-tevo*, we can postulate the two structures as in (26)-(27), respectively. The implicit argument of *-wa* is expressed as an arbitrary PRO, given its sensitivity to animacy (Stenson 1989, Kiparsky 2013):[6]

---

that the behaviors of its implicit external argument that diverge from those of an Agent *by*-phrase. In fact, the Hiaki *-wa* construction does satisfy all four criteria in Maling (2006), which she argues diagnose an active sentence with a null external argument. I will not pursue this question further. It is, however, worth mentioning that mandatory promotion of object to subject position may argue against the active analysis.

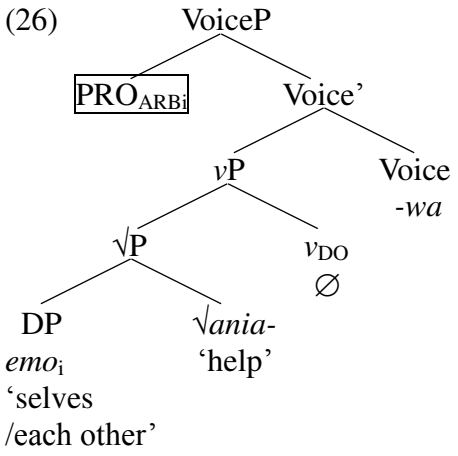
[6] The postulation of a syntactic external argument in (26) raises a question, considering the interaction of passives with raising predicates. Let us for now set aside the other question of how raising constructions can further be passivized, since Hiaki passives can apply to unaccusative verbs too, as shown in (13)/(20). More serious for the present proposal is which argument is attracted. As Harley (2013b) notes, it is the lower Theme argument, not the higher PRO_{ARB}, that undergoes A-movement when a raising construction (i) is passivized, as in (ii):

(i) Vempo Hose-ta nak-tatite.
3pl Jose-Acc care.for-begin
'They are beginning to care for Jose.'

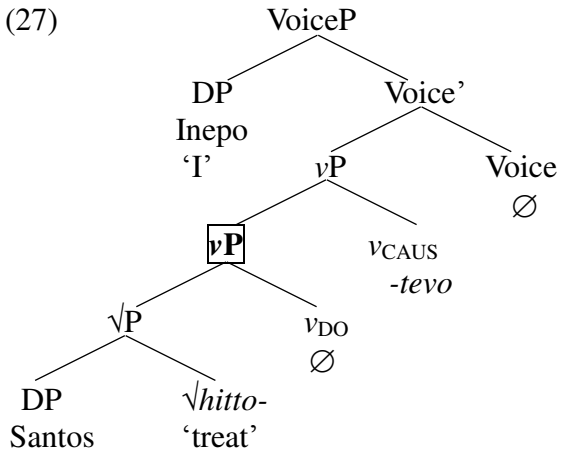
(ii) Hose nak-taite-wa.
Jose care.for-begin-pass
'Someone's beginning to care for Jose.' (Harley 2013b: 17)

If the present analysis is on the right track, the grammaticality of (ii) suggests that PRO_{ARB} does not qualify as an appropriate goal for Hiaki T to satisfy its EPP. It seems that the obligatory implicitness of PRO_{ARB} renders it invisible to T. I leave this question for future investigation.

(26)



(27)



<*To be revised in* (31)>

Now, let us return to the original set of data with unaccusative roots. In explaining the contrasts in (28)-(29) (previously in (2)-(3)), we have seen that an analysis that *-tevo* simply takes a *v*P complement as in (27) overgenerates.

(28) a. *In maala Maria-ta **wee-tevo**-k.
my mother the car-Acc **go.sg-INDIR.CAUS**-Perf

b. *In maala uka caro-ta **wee-tevo**-k.
my mother the car-Acc **go.sg-INDIR.CAUS**-Perf

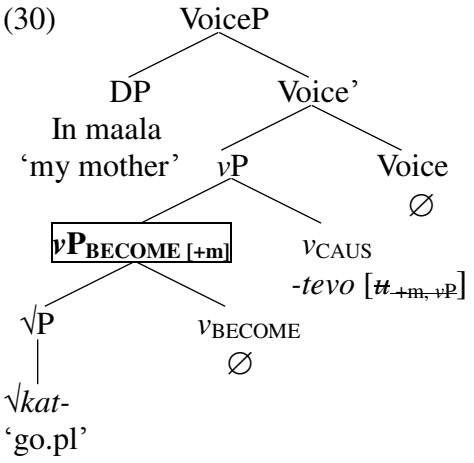
(29) In maala aman **kat-tevo**-k.
my mother there **go.pl-INDIR.CAUS**-Perf
'My mother had (the people) go.'
(Cannot mean 'My mother made (something) go.')

It is thus necessary to incorporate two features into the selectional criteria of *-tevo*. First, the subject of the *v*P complement (i.e., the Causee of *-tevo*) must be structurally absent. The subject here refers to the semantic/logical subject of the root/verb. Crucially, so as not to yield the ungrammatical (28), this suppression must not be limited to external

arguments which otherwise would have been introduced by the inner Voice. Second, we need a way to mark that the understood semantic subject must be animate, so as to get a correct interpretation for (29). However, unlike the passive structure in (26), where the sensitivity to animacy is marked an arbitrary PRO argument sitting in Spec-VoiceP, the sister to *-tevo* is a *v*P. Therefore, the animacy information of the root's suppressed semantic subject must be specified on the *v*P selected.

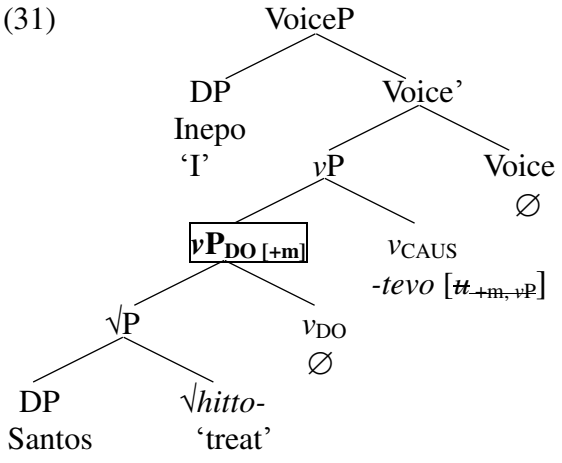
Therefore, I propose the unaccusative causative structure of (29) as in (30), and update the above transitive causative structure in (27) as in (31).

(30)



<Embedded verb is unaccusative>

(31)



<Embedded verb is agentive transitive>

An explanation on the type of *v* in unaccusative events is in order. I adopt the notation v_{BECOME} (Harley 1995) as an umbrella term for unaccusative events that involve a change-of-state on the part of the internal argument. Since the unaccusative motion verbs also involve a change-of-state of the internal Theme with respect to its path (Harley p.c.), it is reasonable to assume that Hiaki suppletive roots are merged with v_{BECOME}, as in

(30).[7]

To mark the animacy information of the semantic subject, I adopt the feature [+m] employed in Key (2013). The feature [+m] refers to 'mental state' and is one of the feature clusters originally proposed by Reinhart (2002). The [+m] feature in (30)-(31) represents the animacy that is pertinent to the semantic subject of the complement of *-tevo*. As the [+m] feature encodes the information of the semantic subject of the *v*P complement, it reflects the property of the internal argument if the eventuality is a v_{BECOME} type as in (30). In contrast, it would refer to the property of the external argument if the event is an activity or external causation such as (31). In order to ensure that *-tevo* selects for a specific set of *v*P complements, I adopt Adger's (2003) Merge system. If Merge between a head and its complement is motivated by feature checking (Adger 2003), the selectional relationship between *-tevo* and its *v*P complement can be implemented formally. Specifically, *-tevo* has an uninterpretable [+m] *v*P feature that needs to be checked, and only *v*P's with an animate semantic subject have an interpretable [+m] feature as above. Consequently, *-tevo* can only merge with (syntactically subjectless) *v*P's, but the semantic subject of the *v*P's at issue is animate, capturing the contrasts in (28)-(29). The results of the present analysis of Hiaki *-tevo* imply that verbs encode lexical information of its arguments such as animacy at least to some extent.

2.4. Inanimate Theme verbs and *-tevo*

The present analysis of *-tevo* makes a straightforward prediction with respect to the kind

[7] One could alternatively use Cuervo's (2003) v_{GO} for representing unaccusative events.

of *v*P that *-tevo* can select for. If *-tevo* is sensitive to the animacy information of the complement's semantic subject, *-tevo* is not expected to appear with intransitive verbs inherently incompatible with animate subjects.

As expected, such verbs are not allowed under *-tevo*, even when the internal argument of the root is dropped:[8]

(32) a. *Acheka **siuti**-tevo-k.
Acheka **tear$_{vi}$**-CAUS-Perf
Intended: 'Acheka made (something) tear.'

b. *Acheka **pohti**-tevo-k.
Acheka **boil$_{vi}$**-CAUS-Perf
Intended: 'Acheka made (something) boil.'

c. *Acheka **bwase**-tevo-k.
Acheka **cook$_{vi}$**-CAUS-Perf
Intended: 'Acheka made (something) cook.'

The unaccusative roots in (32) lexically take an inanimate Theme as their single argument. The fact that they are incompatible with *-tevo* strongly suggest that *-tevo* has a particular requirement about an animate semantic subject, supporting the current proposal.

Not surprisingly, the transitive counterparts of the above unaccusative verbs are allowed under *-tevo*. In this case, the inanimate internal argument must be present. In (33), the complement of *-tevo* is *v*P$_{DO}$, as in (31), rather than *v*P$_{BECOME}$. The Causee in (33) is identified with the external argument of the transitive root and must be understood to be

[8] The ill-formedness of (32b-c) may be cases of semantic infelicity, with an interpretation where the semantic Causee refers to an animate entity. It is worth mentioning, however, that our consultant notes that the root *suite-* 'tear$_{vi}$' in (32a) can only be used with physical objects, unlike its English counterpart.

an animate entity.[9]

(33) a. Acheka *(hiosiam) **siuta**-tevo-k.
Acheka *(papers) **tear$_{vt}$**-CAUS-Perf
'Acheka had the papers torn (by someone).'

b. Acheka *(va'am) **pohta**-tevo-k.
Acheka *(water) **boil$_{vt}$**-CAUS-Perf
'Acheka had the water boiled (by someone).'

c. Acheka *(muunim) **bwasa'a**-tevo-k.
Acheka *(beans) **cook$_{vt}$**-CAUS-Perf
'Acheka had the beans cooked (via someone).'

Unless the animacy of the suppressed Causee matters, the ungrammaticality of (32) is inexplicable. We will see in section 3.3 that not all verb-selecting causatives have such an animacy requirement on the Causee.

2.5. Stative verbs and *-tevo*

We have thus far seen that Hiaki *-tevo* selects for *v*P's with an animate semantic Causee. The types of *v*P's discussed so far denote a dynamic event. This subsection shows that *-tevo* not only takes dynamic *v*P complements, but also stative ones, so long as the two requirements – (i) the syntactic suppression of the Causee; and (ii) the [+m] requirement for the semantic Causee – are satisfied.

Let us first consider psych verbs. Some Hiaki psych verbs can be associated with two

[9] Interestingly, our two consultants offered different forms for the transitive counterpart of 'boil$_{vi}$'. One Hiaki consultant from Tucson, Arizona and the Hiaki grammar sources (Molina et. al 1999, Jelinek & Escalante 2000) use *pohta-*, the other consultant from Sonora, Mexico gave me *pohtia-* for 'boil$_{vt}$'. Importantly, however, they both rejected (32b).

distinct – intransitive and transitive – argument structures as in (34)-(35).[10]

(34) a. Ume ili uusim omte.
the little children be.angry
'The little children are angry.'

b. Ume ili uusim nee omta.
the little children me be.angry.at
'The little children are angry at me.'

(35) a. Goyo mahai.
Goyo be.scared
'Goyo is scared.'

b. Goyo vakochim mahai.
Goyo snakes be.scared.of
'Goyo is scared of snakes.'

If causativization of the psych verbs in (34)-(35) is possible with *-tevo*, the present analysis predicts the embedded *v*P to lack the Experiencer argument, which is its semantic subject. This will leave the (a) examples with no overt argument at all for the embedded *v*P, whereas in the corresponding (b) examples, only the Theme should be present. This prediction is borne out:

(36) a. Aapo hiva omti-tevo.
he always be.angry-CAUS
'He is always making (people) mad.'

b. Aapo hiva nee omta-tevo.
he always me be.angry.at-CAUS
'He is always making (people) mad at me.'

[10] Some Hiaki intransitive/transitive roots undergo a vowel change as in *omte/omta*. Others like *mahai* do not alternate.

(37) a. Aapo hiva mahai-tevo.
he always be.scared-CAUS
'He is always making (people) be scared.'

b. Aapo hiva va'akochim mahai-tevo.
he always snakes be.scared.of-CAUS
'He is always making (people) be scared of snakes.'
('He cautions people to be scared of snakes.')

As shown in (38)-(39), overtly expressing the syntactic Causee of *-tevo* is unacceptable, in line with the patterns exhibited by the eventive $vP_{DO/GO}$ complements. In order to keep the Experiencer Causee, *-tua* must be used.

(38) Aapo hiva ili uusim *omti-tevo/omti-tua.
he always little children be.angry-CAUS/be.angry-CAUS
'He is always making little children get angry.'

(39) Aapo hiva Goyo *mahai-tevo/mahai-tua.
he always Goyo be.scared-CAUS/be.scared-CAUS
'He is always making Goyo be scared.'

-Tevo is also known to co-occur with perception verbs.[11] [12]

(40) a. Aapo au vit-tevo-k.
he self see-CAUS-Perf
'He revealed himself.' (adapted from Dedrick & Casad 1999: 103)

[11] Curiously, *-tevo* allows the Experiencer arguments of perception verbs to be expressed in the form of an adjunct such as *si'imem-meu* 'all the others-to' (Dedrick & Casad 1999:103). This is exceptional considering the restrictions of *-tevo* on the semantic subject discussed so far. Perception verbs are the only type of verbs which *-tevo* allows the semantic subject to be expressed. Notice, however, that the expressed Experiencer is not a syntactic argument, but an adjunct. Thus, its optional presence does not run counter to the present account (see Key 2013 for evidence that the Causee of the Turkish verb-selecting causative is an adjunct). Of course, the [+m] condition on the part of the Causee is always met with perception verbs.

[12] The root *vit-* can become a ditransitive with the attachment of the lexical causative *-tua*, meaning 'show' or 'send'.

b. Aapo au hikka-tevo-k.
he self hear-CAUS-Perf
'He made himself heard.'

The fact that *-tevo* can embed stative psych verbs and verbs of perception suggests that the selection of complements is not restricted to certain flavors of *v*P. We will see in section 3.3 that this is not always the case with other verb-selecting causatives, yielding variation within the verb-selecting causatives.

2.6. Apparent counterexamples – the presence of a null causative head

Tubino Blanco (2010) observes a few problematic instances of *-tevo* with embedded unaccusative verbs. Some relevant examples are provided in (41). In (41), the semantic subject of the unaccusative root is structurally licensed as an argument, as can be seen from the accusative determiner. Why are examples such as (41), though rare, possible?

(41) a. Uu nesaweme **ume** **kaa hoaka-me** kari-u
the director **the.Acc** **not house.have-those** house-to

kimu-tevo-k.
enter.pl-CAUS-Perf
'The director had the homeless brought in the house (by somebody).'

b. Hoan **ume** **uusim** aman **saka'a-tevo**-k.
Hoan **the.Acc** **children** there **leave.pl-CAUS**-Perf
'Hoan made it possible for children to leave (via someone).'

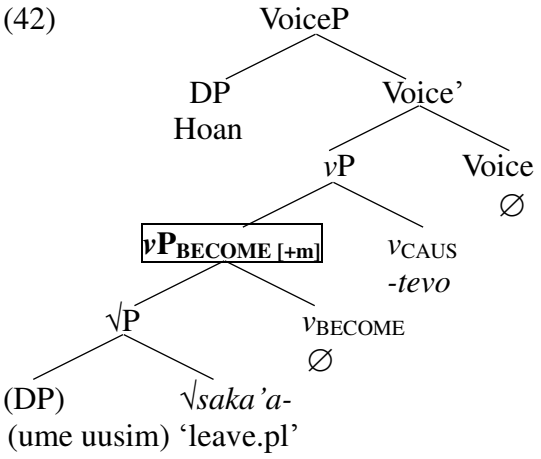
I propose that the examples in (41) can be accounted for if we attend to two facts. First, unlike the other instances of *-tevo*, the sentences in (41) express a permissive interpretation for the expressed internal argument. Second, as Tubino Blanco (2010) notes, the end result is achieved by an unmentioned third party who brings in the Theme

(41a) or show the Theme the door (41b). In view of these facts, I follow Tubino Blanco (2010) and conclude that there exists a null (lexical) causative head in (41) between the unaccusative root and *-tevo*. Specifically, the Theme of the unaccusative root is not the Causee, but there exists a separate entity that receives a direction from the Causer and performs an action. This is why the Theme argument is understood to receive permission.

Consequently, the argument structure of (41) would be not (42), but that of (43):

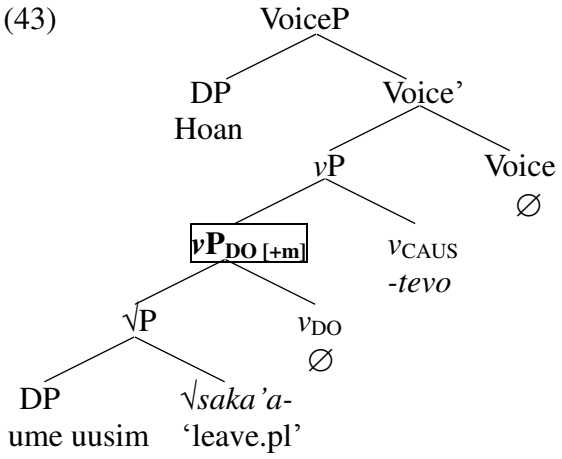
Option #1 ✖

(42)



Option #2 ✓

(43)



The two structures differ in the type of *v*P selected by *-tevo*, despite the fact that both *v*P's involve a null *v* head. In (42), *-tevo* takes the unaccusative motion vP_{BECOME}, whereas (43) takes a transitive lexical causative vP_{DO}. If so, it is expected that the internal Theme argument is overtly present in (41).

Further support for this idea comes from the fact that the examples in (41) can alternate with (44), where the overt *-tua* is present under *-tevo*.

(44) a. Uu nesaweme **ume** **kaa hoaka-me** kari-u
the director **the.Acc** **not house.have-those** house-to

kimu-tua-tevo-k.
enter.pl-CAUS-CAUS-Perf
'The director had the homeless brought in the house (by somebody).'

b. Hoan **ume** **uusim** aman **saka'a-tua-tevo**-k.
Hoan **the.Acc** **children** there **leave.pl-CAUS-CAUS**-Perf
'Hoan made it possible for children to leave (via someone).'

Finally, the examples in (41) allow passivization of the Theme, as in (45). The passivizability of (41) suggests that the internal argument of the unaccusative root in (41) is a true syntactic argument. This passivization pattern is the same as that of the *-tevo* causative in (46) (previously discussed in (9)), which embeds an agentive transitive root.

(45) a. **Ume** **kaa hoakame** kari-u kimu-**tevo-wa**-k.
the **not house.have-those** house-to enter.pl-**CAUS-PASS**-Perf
'The homeless were made to enter the house.'

b. **Ume uusim** saka'a-**tevo-wa**-k.
the children leave.pl-**CAUS-PASS**-Perf
'The children were made to leave.'

(46) **Santos** hitto-**tevo-wa**-k.
Santos treat-**CAUS-PASS**-Perf
'Santos was made to be treated.' (Harley 2013a: 51)

On the contrary, passivization of indirect causatives involving the true unaccusative *v*P's – vP_{BECOME} complements – is not possible, as in (47).

(47) a. *Aman kari-u kimu-**tevo-wa**-k.
there house-to enter.pl-**CAUS-PASS**-Perf
Intended: '(People) were made to enter in the house.'

b. *Aman saka'a-**tevo-wa**-k.
there leave.pl-**CAUS-PASS**-Perf
Intended: '(People) were made to leave.'

Considering that Hiaki allows impersonal passives with no overt argument, the unacceptability of (47) constitutes as further evidence that the Causee of *-tevo* is only semantically available. In other words, by the time the passive *-wa* is added to the structure, there is no syntactic argument that can participate in passivization.[13]

To conclude, the overt expression of an internal argument in (41) does not challenge the proposal that the Causee of the *-tevo* is syntactically nonexistent. A question remains, of course, as to why the two structures in (41) and (44) can alternate with the same interpretation. Interestingly, Tubino Blanco (2010) has revealed that certain Hiaki causatives structurally require two instances of *-tua*, but only one of them gets realized phonologically. In this regard, Hiaki appears to allow, though very restrictively, the inner *-tua* to be substituted with a null suffix next to another argument-structure-altering suffix.[14]

3. On the Variation of Verb-Selecting Causatives

3.1. Chicheŵa oblique causatives

Chicheŵa causatives with an oblique Causee (Alsina 1992, Simango 1995) formed with the productive causative suffix *-its/-ets* manifest typical properties of verb-selecting

[13] This contrasts with impersonal passives formed out of an intransitive verb base. With impersonal passives of intransitives, there exists a syntactic argument before passivization – the single argument of intransitives – that can be the target of (impersonal) passivization.

[14] Tubino Blanco (2010) attributes the deletion of one of the two *-tua*'s as a case of haplology (Bloomfield 1986). This explanation does not apply to the above instances of null *-tua*, however.

causatives.[15] The allomorphy of the causative suffix is systematically triggered by the nucleus of the first syllable – *-its* appears with *a, i, u* (e.g., *mang-its* 'build-CAUS', *lim-its* 'cultivate-CAUS', *dul-its* 'cut-CAUS'), whereas *-ets* is used with *e* and *o* (e.g., *meny-ets* 'beat-CAUS', *konz-ets* 'repair-CAUS'). In this study, I assume *-its* as the underlying form as assumed in Hyman & Mchombo (1992) and Hyman (2003).

In (48), the Agent-Causee that is associated with the embedded verbal root appears as an adjunct (Alsina 1992). I will call this Chichewa causative construction with an adjunct external argument an "oblique causative". The result of introducing this causative head in the derivation is the syntactic elimination of the Agent-Causee argument, as in Hiaki indirect causatives.

(48) Nungu i-na-phik-**its**-a maungu **(kwa kadzidzi)**.
porcupine Subj-Past-cook$_{vt}$-**CAUS**-fv pumpkins **(to owl)**
'The porcupine had the pumpkins cooked (by the owl).'
adapted from Alsina (1992: 518)

In addition to the fact that the Agent-Causee may be omitted, the syntactic and morphological behaviors of these causatives reveal that the caused event complement in (48) involves a *v*P, with no embedded Voice layer. First, as noted by Alsina (1992), the oblique Causee, as an adjunct, cannot antecede a pronominal Theme:

[15] Chichewa *-its* can also take a syntactic object Causee adjacent to the verb and without the preposition *kwa*, unlike the adjunct Causee in (48) (Alsina 1992). This dichotomy resembles that of Romance *Faire Infinitif* and *Faire Par* (Kayne 1975) causatives. Additionally, *-its* derives some lexical causative cases as well (e.g., *dy-ets* is ambiguous between 'make eat' and 'feed') (Dubinsky & Simango 1996, Simango 1999). Here I focus on the causative construction with an oblique Causee, corresponding to the verb-selecting type.

(49) *Alimi a-ku-lemb-ets-a ndakatulo **yake** kwa **mkango**.
farmers Subj-Pres-write-CAUS-fv poem **his** to **lion**
Intended: 'The farmers are making the lion write his poem.'
(Alsina 1992: 520, glossing mine)

In (50), the reflexive can only refer back to the Causer, not the oblique Causee (see Mchombo 1993, 2004 for evidence that *dzi-* is a syntactic argument despite being a verbal prefix):

(50) **Alenje** a-na-**dzi**-meny-ets-a kwa mkazi.
hunters Subj-Past-**self**-hit-CAUS-fv to woman
'The hunters made themselves hit by the woman.'
*'The hunters made the woman hit herself.'

Finally, stacking the causative suffix on top of a lexically causativized verb (Dubinsky & Simango 1996, Simango 1999, see also section 6 of chapter 2) is permitted with the oblique causative. (51) illustrates that the productive causative *-its* is above the first verbalizing layer:

(51) Chibwe a-na-ku-**z-its**-a malaya (kwa telala)
Chibwe Subj-Past-be.big-**LEX.CAUS-SYN.CAUS**-fv shirt (to tailor)
'Chibwe had the shirt enlarged by the tailor.'

Chichewa oblique causatives and Hiaki indirect causatives are then alike in that both select for *v*P complements. A difference is that the former has an option to overtly realize the semantic Causee in the form of an adjunct, unlike in Hiaki.

3.2. Causatives of unaccusatives

Remember the initial conclusion about the verb-selecting causatives that posed questions

about Hiaki *-tevo*. If verb-selecting causatives take *v*P complements to the exclusion of the external argument, by definition, they should be able to embed unaccusative *v*P's, complete with their internal arguments. This is the case with Chichewa *-its*, as in (52):

(52) Chibwe a-na-mir-**its**-a bwato. [*Chichewa*]
Chibwe Subj-Past-sink$_{vi}$-**SYN.CAUS**-fv boat
'Chibwe made the boat sink.'
adapted from Dubinsky & Simango (1996: 765)

The unaccusative causative in (52) is in contrast to that of Hiaki *-tevo* in that although Hiaki *-tevo* can embed unaccusative verbs, it requires the internal argument of the embedded verb to be deleted and the implied subject to be an animate entity.

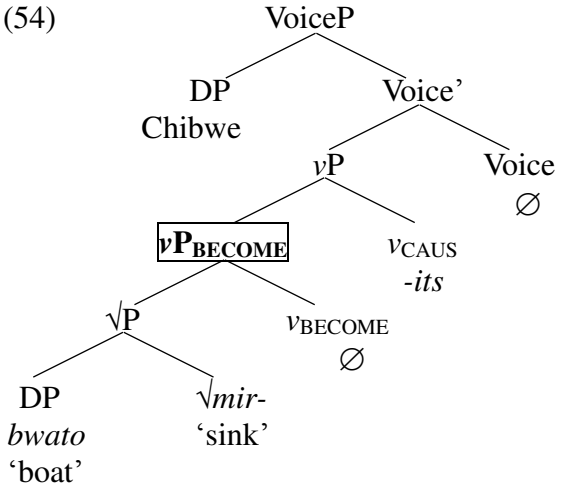
The semantic and morphological distinction between the *-its* causative and its lexical causative counterpart in (53) suggests that (52) involves a productive causative embedding the unaccusative *verb*, rather than *root*.

(53) Chibwe a-na-mi-**z**-a bwato. [*Chichewa*]
Chibwe Subj-Past-sink$_{vi}$-**LEX.CAUS**-fv boat
'Chibwe sank the boat.'
adapted from Dubinsky & Simango (1996: 766)

The English translations indicate that (53) involves a single event where the two arguments belong. Chibwe directly brings about a change-of-state in the boat. That is, the structure of (53) amounts to a transitive agentive structure, where the lexical causative suffix selects for the root phrase. In contrast, (52) is concerned with two events, where Chibwe's causing event is separated from the boat's sinking event. However, because unaccusative events lack a VoiceP, the resulting causative construction contains a single

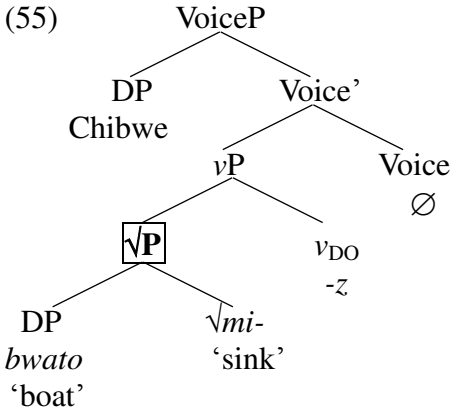
VoiceP, which hosts the matrix Causer. These differences between (52)-(53) are reflected in the respective structures in (54)-(55):

(54)



<Verb-selecting productive causative>

(55)



<Root-selecting lexical causative>

The acceptability of (52) in the structure in (54) diverges from the patterns exhibited by Hiaki *-tevo*. Recall that *-tevo* requires the subject of its *v*P complement (i.e., Causee) to be syntactically suppressed and animate. This is why the Hiaki data in (56), (repeated from (28)), was argued to be unacceptable. The only way to embed an unaccusative verb was to syntactically suppress its internal argument (57) (repeated from (29)):

(56) a. *In maala Maria-ta **wee-tevo**-k. [*Hiaki*]
my mother the car-Acc **go.sg-INDIR.CAUS**-Perf

b. *In maala uka caro-ta **wee-tevo**-k. [*Hiaki*]
my mother the car-Acc **go.sg-INDIR.CAUS**-Perf

(57) In maala aman **kat-tevo**-k. [*Hiaki*]
my mother there **go.pl-INDIR.CAUS**-Perf
'My mother had (the people) go.'
(Cannot mean 'My mother made (something) go.')

The interpretation of the Chichewa counterpart in (52) does not signal the engagement of another participant in addition to the internal argument of the embedded verb. Thus, it is not analogous to the Hiaki case of (58), which was claimed to contain a null causative suffix (section 2.6):

(58) Hoan **ume** **uusim** aman **saka'a**-∅-**tevo**-k. [*Hiaki*]
Hoan **the.Acc** **children** there **leave.pl-CAUS-CAUS**-Perf
'Hoan made it possible for children to leave (via someone).'

The different grammaticality between Hiaki in (56) and Chichewa in (52) reveals that the principles which regulate the productive causativization of unaccusative stem differ in Hiaki and Chichewa. We will see in the next section that while both Hiaki *-tevo* and Chichewa *-its* may be verb-selecting causatives, the two vary in the syntactic suppressibility of the Causee and its animacy requirement.

3.3. Selectional variation within verb-selecting causatives

It has been observed that Chichewa oblique causatives are formed based on a selective group of verbs. Alsina (1992) and Simango (1995) each note that oblique causatives cannot be used with transitive perception verbs and psych verbs like those in (59)-(60):[16]

(59) Ana a-ku-li-mv-a (phokoso).
children Subj-Pres-OM-hear-fv noise
'The children are hearing it (the noise).' (Alsina 1992: 528)

[16] The OM (object marker) agrees with the Theme *phokoso* in terms of noun class – both are class 5. With the object marker present on the verbal complex, the Theme is omissible.

(60) Mtsikana a-na-op-a galu.
girl Subj-Past-fear-fv dog
'The girl feared the dog.'

For these verbs, only causatives with a structural object Causee is permitted, as the difference in acceptability in (a)-(b) exemplifies:

(61) a. Chatsalira a-ku-**mv**-ets-a **ana** phokoso.
Chatsalira Subj-Pres-**hear**-CAUS-fv **children** noise
'Chatsalira is making the children hear the noise.'

b. *Chatsalira a-ku-**mv**-ets-a phokoso **(kwa ana)**.
Chatsalira Subj-Pres-**hear**-CAUS-fv noise **(to children)**
(Alsina 1992: 528)

(62) a. John a-na-**op**-ets-a **mtsikana** galu
John Subj-Past-**fear**-CAUS-fv **girl** dog
'John made the girl fear the dog.' (Simango 1995: 113)

b. *John a-na-**op**-ets-a galu **(kwa mtsikana)**.
John Subj-**fear**-CAUS-fv dog **(to girl)**

What the above two types of verbs have in common is that they denote a transitive state. The restrictions observed in (61)-(62) lead us to conclude that constructing oblique causatives is only possible if the embedded root is transitive agentive, as in (63)-(64), repeated from (48) and (51). This is in line with Simango's (1995) proposal, which ascribes the ill-formedness of (62b) to the non-volitional and non-causational properties of the Experiencer.

(63) Nungu i-na-phik-its-a maungu **(kwa kadzidzi)**.
porcupine Subj-Past-cook$_{vt}$-CAUS-fv pumpkins **(to owl)**
'The porcupine had the pumpkins cooked (by the owl).'
adapted from Alsina (1992: 518)

(64) Chibwe a-na-ku-z-its-a malaya **(kwa telala)**
Chibwe Subj-Past-be.big-LEX.CAUS-SYN.CAUS-fv shirt **(to tailor)**
'Chibwe had the shirt enlarged by the tailor.'

Chichewa oblique causatives then take as their complement particular types of *v*P's, whose roots are associated with an external Agent/Causer argument – in the present terms, $v_{DO/CAUS}$P's.[17] Therefore, it is only the subject of these classes of verbs that can be syntactically dropped and whose animacy is relevant. The ungrammaticality of (65)-(66) confirms this proposal. They are identical with the grammatical (63)-(64), except that they involve an inanimate oblique Causee:

(65) *Nungu i-na-phik-its-a maungu **kwa mbaula**.
porcupine Subj-Past-cook$_{vt}$-CAUS-fv pumpkins **to stove**

(66) *Chibwe a-na-ku-z-its-a malaya **kwa**
Chibwe Subj-Past-be.big-LEX.CAUS-SYN.CAUS-fv shirt **to**

makina osokera
sewing machine

Taken together, these facts indicate that the oblique causatives in Chichewa select for a $vP_{DO/CAUS}$ complement with an interpretable [+m] feature. What about the unaccusative change-of-state *v*P's embedded by *-its*, as in (52), repeated below as (67)? Consider as well another example with an unaccusative stative *v*P in (68). The stative unaccusative root *kul-* 'be big' behaves in parallel with *mir-* 'sink$_{vi}$'. It can either be lexically causativized as *kuz-* 'enlarge', or accompany the suffix-*its*, as in (68).

[17] v_{CAUS}Ps, as well as v_{DO}Ps, since inherently ditransitive roots like *patsa* 'give' and *phunzitsa* 'teach' can appear in oblique causatives.

(67) Chibwe a-na-mir-**its**-a bwato. [*Chichewa*]
Chibwe Subj-Past-sink$_{vi}$-**SYN.CAUS**-fv boat
'Chibwe made the boat sink.'
adapted from Dubinsky & Simango (1996: 765)

(68) Telala a-na-kul-**its**-a malaya
tailor Subj-Past-be.big-**SYN.CAUS**-fv shirt
'The tailor made the shirt big.' Dubinsky & Simango (1996: 765)

Recall from section 3.2 that (67) does not entail the presence of another party besides the internal argument of the embedded verb, differing from its Hiaki counterpart. The same interpretation results from (68). This shows that (67)-(68) are simple productive causatives of unaccusative verbs. In Chichewa, then, verb-selecting causatives come in two subtypes – (i) oblique causatives which require specific flavors of the *v* head (i.e., $v_{DO/CAUS}$) and the associated [+m] feature on the syntactically absent but semantically present Causee; and (ii) productive causatives of unaccusative verbs (i.e., $v_{BECOME/BE}$).[18]

The variation between the Hiaki and Chichewa verb-selecting causatives thus emerges. Besides the fine-grained selectional differences between Hiaki indirect causatives and Chichewa oblique causatives in the eventuality type of the selected *v*P and the animacy requirement associated with it, the two languages differ in whether the relevant causative head can form simple productive causatives. Because Chichewa has only one type of productive causative suffix *-its* (and its phonologically conditioned allomorph *-ets*), the suffix participates in the formation of both oblique causatives and productive causatives of unaccusative *v*Ps. That is, *-its* is the underspecified causative

[18] The different restrictions imposed on transitive states (61)-(62) and unaccusative states (68) in Chichewa productive causativization raises a question about the internal/external status of the Experiencer argument. I leave this question open.

head for productive causativization. On the contrary, Hiaki *-tevo* is reserved specifically for productive indirect causativization. As we have discussed earlier, Hiaki has a distinct causative suffix *-tua* that has a wider distribution. *-Tua* functions as the productive (Voice-selecting causative) head, as well as lexical causative head in limited cases (chapters 2 and 4, section 2.1 of this chapter, Tubino Blanco 2010, Tubino Blanco & Harley 2011, Harley 2013a). It follows that in Hiaki *-tevo* is a more specified vocabulary item sensitive to the feature [+m] compared to the other causativizing suffix *-tua*. The selectional variation between the two verb-selecting causatives in Hiaki and Chicheŵa is captured in the table below:

[Table 5.1] *Variation between Hiaki and Chicheŵa verb-selecting causatives*

Verb-selecting causatives	Complement type	Causee syntactically absent	Causee must be animate	Causative function
Hiaki *-tevo*	vP $_{[+m]}$	Yes	Yes	indirect causative
Chicheŵa *-its*	vP$_{DO/CAUS\ [+m]}$	Yes	Yes	oblique causative
	vP$_{BECOME/BE}$	No	No	productive causative of unaccusative

4. Conclusions and Remaining Questions

In this chapter, I investigated the selectional properties of verb-selecting causatives in light of the previously established definition that verb-selecting causatives are a type of causatives which simply take *v*P complements. The properties of Hiaki verb-selecting causatives reveal that the property of the associated Causee must be part of the selectional requirements of the causative head in addition to the size of the complement taken. I have proposed to formally encode the animacy requirement imposed on the semantic Causee in Hiaki indirect causatives such that Hiaki *-tevo* selects for *v*P's with an interpretable [+m]

feature associated with its semantic subject. Under the present analysis of Hiaki indirect causatives, its three properties are expected outcomes – (i) the causative head *-tevo* merges with *v*P complements; (ii) *-tevo* requires the semantic Causee to be suppressed; (iii) *-tevo* is sensitive to the animacy of the suppressed semantic Causee. (section 2).

In so doing, I have compared and contrasted Hiaki verb-selecting *-tevo* with its Chichewa counterpart *-its*. Hiaki and Chicheŵa verb-selecting causatives differ in two respects: the eventuality type of the selected *v*P and the animacy requirement associated with it and the ability of the causative head to form simple productive causatives. Specifically, Hiaki *-tevo* merges with any *v*P that has a [+m] feature for the syntactically suppressed semantic Causee. On the other hand, Chicheŵa *-its* realizes two subtypes of verb-selecting causatives – productive causatives of unaccusative verbs and oblique causatives. The former verb-selecting type derives as a result of the productive causative suffix *-its* combining with unaccusative *v*Ps. The latter verb-selecting type is comparable to Hiaki *-tevo* in that *-its* merges with syntactically subjectless *v*P complements and is sensitive to the animacy of the semantic Causee. The Chichewa oblique causatives, however, diverge from Hiaki indirect causatives in that they are compatible only with particular *v*Ps – those that realize the eventuality of activity and external causation (i.e., $vP_{DO/CAUS}$).

While the present treatment of verb-selecting causatives capture their varying selectional patterns, the interaction of Hiaki *-tevo* and its unaccusative *v*P complements gives rise to some theoretical questions. In the current analysis of Hiaki *-tevo*, the Causee of *-tevo* exists only semantically. This means that when the complement *v*P of *-tevo*

involves unergative or agentive transitive roots, the external argument of the root will simply be not added in the structure. However, a question can be asked as to how the subject of the unaccusative verbs is syntactically suppressed when embedded under *-tevo*. Since unaccusative roots take an internal argument, the suppression of the internal argument should be carried out after the productive causative *-tevo* enters the derivation. This means that the word formation in this case ends up deleting the preexisting internal argument (Koontz-Garboden 2009, Key 2013). The other possibility is that the internal argument is not projected in the structure in the first place, in effect doing 'look-ahead' to recognize that *-tevo* will be later added in the derivation. Both are undesirable in the current theoretical framework, where alteration of argument structure takes place in syntax.

I do not see a structural solution that can resolve this tension at the moment. An alternative to get around this issue is to postulate a PRO in the place of the argument position of the unaccusative root and consider that the Causee which is an internal argument exists covertly, unlike the Causee that is an external argument. However, the modification patterns of participials have shown that the internal argument of the unaccusative root in Hiaki must be syntactically inert (section 2.2). The same conclusion follows from the inability of the semantic Causee to control in (69) below. With suppletive unaccusative *tenni-* embedded under *-tevo*, (69) is not acceptable.

(69) #Uu maeto tenni-**tevo**-k, kaa komon-ne-vetchi'ivo bweituk
the teacher run.pl-**CAUS**-Perf not get.wet-irreal-for because

yuken.
was raining
Intended: 'The teacher had (people) run in order not to get wet from the rain.'

(The purpose clause refers to the intention of the matrix Causer, not the people running.)

In (69), the content to the purpose clause is more natural when associated with the semantic Causee – the people who were made to run. However, because the semantic Causee has no syntactic presence, one is led to connect the purpose clause to the matrix Causer, yielding the semantic infelicity. Thus, it seems that positing a PRO specifically for the internal arguments of unaccusatives under *-tevo* is not supported empirically.[19]

Another possible line of thinking is that Hiaki unaccusatives denoting motion or involuntary action may be ambiguous between unergative and unaccusative. Two facts are relevant. First, motion verbs in some languages are diagnosed as unergative. Second, we have encountered in chapter 2 the fact that the single argument of certain roots which are standardly taken as unergatives behaves more like an internal argument, rather than external, when they are embedded under lexical causative in Korean. This speculation opens up a new set of questions about unergativity and unaccusativity and how they are affected by the addition of the functional items that alter the argument structure. A question still remains, however, as to what enables the suppression of internal arguments of stative unaccusative verbs (section 2.5).

[19] To maintain the hypothesis that the internal argument of unaccusatives does project a PRO in the structure, one could alternatively posit that the PRO is projected in a position where it is not capable of controlling the purpose clause (Harley p.c.). This, however, would contradict the findings about implicit arguments in Chapter 3.

CHAPTER 6. CONCLUSION

In this dissertation, I have presented an account of how and why applicatives and causatives exhibit the syntactic and morphological properties they do. The two devices that this account implements are: (i) selectional information encoded in the functional heads Voice, Appl, and *v*, whose syntactic positions align with the corresponding affixes, and (ii) the independently motivated assumption that a basic verb phrase consists of three projections of Voice, *v*, and acategorial root (Pylkkänen 2002; 2008, Cuervo 2003, Collins 2005, Alexiadou et al. 2006, Harley 2013a, Merchant 2013, a.o.).

The corollaries of the assumption in (ii) above have allowed us to explain various empirical phenomena, including constraints on applicative and causative affix ordering, the disparate behaviors of functional heads in their ability to introduce arguments, and the morphological and syntactic effects of the three causative types due to the size of their complements. The query has also focused on a number of issues arising from the transition to the tripartite hypothesis about verb phrases. This involved two different tasks – refining the account of selection in applicatives and causatives to avoid the problem of overgeneration and undergeneration; and adequately reflecting previously established facts about applicatives and causatives in the updated verbal structure. Below I summarize the key findings of each chapter.

Chapter 2 addressed the curious case of applicative-causative morpheme ordering. The ordering of CAUS and APPL suffixes in Hiaki and Korean and their seemingly opposite ordering in Chicheŵa are shown to result from the structural properties of the applicative and causative heads – namely, the size of the complement selected for by each. The key

assumption here was that the applicative and causative suffixes occupy the functional categories of high Appl and *v*, respectively. While high Appl must be located between the *v*P and VoiceP in the first phase, there are three possible slots for *v* – root-adjacent, verb-selecting, and Voice-selecting. The interaction of the three functional heads Voice, high Appl, and *v* yields the ordering patterns and variation among the three languages of study.

In Chapter 3, I put forth an analysis that captures the disjunctive properties of the Korean verbal suffix *-ecwu* and considered the equivalents in other languages. The hypothesis that Korean *-ecwu* can realize either the high Appl head or a split little *v* head is shown to properly explain why *-ecwu* adds a new argument only in a particular syntactic environment – between $v\mathrm{P}_{\mathrm{DO}}$ and Voice – but not outside it. As a stative high $\mathrm{Appl}_{\mathrm{HAVE}}$ head, *-ecwu* denotes an abstract possession relation between its high Possessor argument and the root-modified Theme. As an optional little *v* head, *-ecwu* does not add a syntactic argument but marks secondary benefactive semantics. A new applicative typology of is proposed that distinguishes among the low Possessor, high Beneficiary, and high Possessor arguments. Finally, I compared the optional verbal suffix *-kan* in Bahasa Indonesia to the usage of *-ecwu* in the split little *v*.

Chapters 4 and 5 investigated issues related to the three-way (i.e., root-selecting, verb-selecting, and Voice-selecting) causative classification. Chapter 4 focused on the two Korean causatives – lexical and productive causatives, which correspond to root-selecting and Voice-selecting causatives, respectively. By treating lexical causatives as root-selecting causatives, I have drawn two conclusions. First, I have argued that Korean lexical causative suffixes realize the first verbalizing head, not Voice. Second, the sources

of the Causees in lexical causatives of transitive roots have been identified. The Causees are divided into two groups depending on their status as an applied argument introduced by high Appl_{BY} or a root-internal argument. With productive causatives in Korean, I presented evidence that Korean productive causatives are truly Voice-selecting, not TP-selecting. The complex causative predicate *-keyha* was decomposed into two terminal nodes headed by *-key* (i.e., Res) and *-ha* (i.e., v_{CAUS} bundled with Voice).

Chapter 5 has provided an elaborated characterization of verb-selecting causatives. The patterns of Hiaki indirect causatives marked by *-tevo* showed that the previous definition of verb-selecting causatives based solely on complement size overgenerates. In order to capture the behavior of *-tevo*, I have argued that the animacy information of the Causee must be encoded as part of the selectional criteria. Thus, Hiaki *-tevo* selects for *v*P's with an interpretable [+m] feature that indicates that the syntactically suppressed semantic Causee is an animate entity. A similar sensitivity to the animacy of the Causee is observed with Chicheŵa oblique causatives as well. The two verb-selecting causatives differ in that Chicheŵa oblique causatives are associated with *v*P's denoting a transitive activity and external causation exclusively, whereas Hiaki indirect causatives can co-occur with any eventuality type. Additionally, it was noted that unlike Hiaki *-tevo*, Chicheŵa causative *-its* can form simple productive causatives of unaccusatives. In this case, the causative does not have a particular requirement for Causee animacy, because it does not imply the presence of an oblique Causee.

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