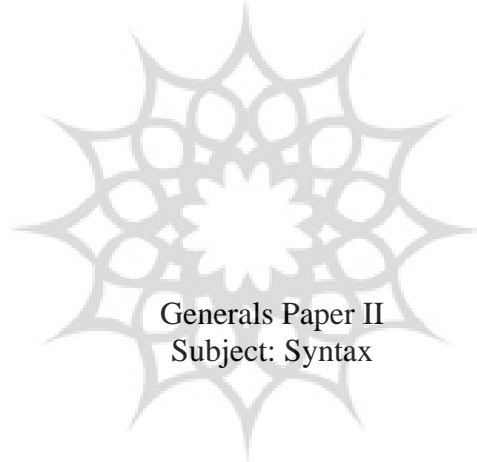


# Applicatives in Korean causatives and passives

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## Applicatives in Korean causatives and passives\*

### 1. Introduction

Korean has a voice morpheme *-i* (henceforth *-I* morpheme), which surfaces variously as *-i*, *-hi*, *-li*, *-ki*, and is exemplified in (1).<sup>1</sup> Its unusual distribution is much remarked upon in the literature (Lee 1986; J. Park 1994; Kang 1997; H. Kim 2005 among many others). The morpheme marks seemingly opposite syntactic contexts, causatives (1a) and passives (1b):

(1) a. causative

emma-ka	ai-eykey	chayk-lul	ilk-hi-ess-ta
mother-NOM	child-DAT	book-ACC	read-I-PAST-DEC

‘Mother made the child read the book.’

b. passive

Minsu-ka	kay-eykey	tali-lul	mul-li-ess-ta
Minsu-NOM	dog-DAT	leg-ACC	bite-I-PAST-DEC

‘Minsu got his leg bitten by a dog.’

A longstanding question regarding the distribution of the morpheme is how to unify the distribution of this morpheme that appears in two such different contexts.

The highlights of this paper are twofold. First, this paper provides a unified syntactic analysis of the syncretism of the *-I* morpheme, assuming Distributed Morphology (Halle and Marantz 1993, 1994). I argue that the *-I* morpheme is inserted into causatives and passives post-syntactically when a particular structural condition is met, as also argued in Embick (1998) for the syncretism of the Greek voice morpheme. The central proposal is that the *-I* morpheme appears in the two different syntactic contexts due to a shared syntactic property, namely a high

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<sup>1</sup> The allomorphs are mainly conditioned phonologically (Yeon 1991; J. Park 1994).

applicative complement structure where the dative DP is a high applied argument. This has not been recognized in the previous semantic polysemous approaches to this morpheme (e.g., J. Park 1994; Beak 1997). By proposing that causatives and passives share the same complement structure, the proposal captures an argument structure similarity which was missed in previous syntactic approaches to the morpheme (e.g., Kang 1997).

The second highlight of the paper is its consequences for the typology of complement selection of causatives proposed in Pylkkänen (2002). Pylkkänen argues that the complement of causatives can vary.<sup>2</sup> One is a verb-selecting causative that chooses VP without an external argument as a complement. The other is a phase-selecting causative that chooses a constituent with an external argument (e.g., VoiceP) as a complement. The complement of a phase-selecting causative can be modified by an agent-oriented adverb due to the presence of an external argument. As will be shown later in the paper, Korean causatives constitute a new type of complement selection: applicative-selection. Unlike verb-selecting causatives, Korean causatives can embed a constituent with an external argument (e.g., ApplP). Nevertheless, unlike phase-selecting causatives, they do not allow agent oriented adverb modification. I argue that the difference in adverb modification stems from the different semantics of the head in each selecting variation: non agentive Appl (i.e., instrumental) vs. agentive Voice. Thus, Korean cases provide evidence for expanding Pylkkänen's typology on complement selection, thereby providing a more constrained theory of complement-selecting variation. That is, Appl and Voice can each be defined as a domain that causatives can select as a complement, but they are different domains in terms of semantics.

The paper is organized as follows. In section 2, I introduce general assumptions, and the syntax and semantics of applicatives. Basic data of causatives and passives are also provided. In

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<sup>2</sup> There is another variation: a root-selecting causative. For the purpose of the paper, it is not discussed here.

section 3, I propose that the -I morpheme is inserted into both causatives and passives due to a shared structure, namely a high applicative complement structure. I also discuss the consequences of the proposal with respect to the typology of the complement selection of causatives. In section 4, I argue that the embedded clauses of causatives and passives are high applicatives based on their (morpho-)syntactic and semantic properties. In particular, I argue that they are instrumental applicatives, based on the morphological marking pattern on dative arguments. In section 5, I argue that causatives must embed a high applicative as a complement but not other types of complements, such as  $v_{DO}$ , as argued for Italian causatives (Folli and Harley 2007) or a PP as argued for Korean ditransitives (e.g., Jung and Miyagawa 2003). In section 6, I argue passives too must embed a high applicative and not a low applicative, in contrast to Japanese passives which are claimed to involve a low applicative (Pylkkänen 2002). In section 7, I discuss the similarities and differences between causatives and passives, and how the proposed analysis can capture them. In section 8, I conclude the paper by summarizing its key contributions.

## **2. Assumptions and basic data**

### **2.1 General assumptions**

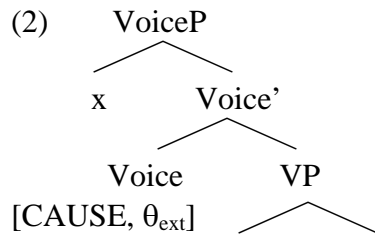
This paper assumes a syntactic approach to morphology, as advocated in Distributed Morphology (DM) proposed by Halle and Marantz (1993, 1994) and subsequent works. In DM, the syntax consists of a set of rules that generate syntactic structures, which are then subjected to further operations in the derivation of PF and LF interface levels. Under this view, the phonological expression of syntactic terminal nodes is inserted after the syntax builds all the relevant semantic/syntactic feature bundles. In other words, the insertion of the phonological expressions adds phonological information but does not add any syntactic/semantic information. The most crucial theoretical tool relevant to the syncretism of the -I morpheme is

underspecification, as also argued in Embick (1997, 1998) for the syncretism of the Greek voice morpheme. Embick argues that the occurrence of the Greek voice morpheme in the various syntactic contexts— reflexives, passives, and anticausatives —is because the morpheme is underspecified so that it is sensitive to only a certain syntactic environment shared by those syntactic contexts, namely *v* without an external argument. The point to be stressed is that the morpheme does not correspond to the semantics of *v* but it is sensitive to whether *v* is in a particular relationship with an externally projected argument. In other words, the occurrence of the morpheme depends on the syntax but not the semantics of a relevant head. As will be shown in the paper, like the Greek voice morpheme, the -I morpheme in Korean is sensitive to a particular structure shared by causatives and passives (i.e., a high applicative) but not to the semantics of the relevant head (e.g., causative semantics).

The paper assumes Voice head to be an external argument introducing head (Kratzer 1996). Voice relates the external argument to the event described by the verb, and combines with the VP via a semantic rule called Event Identification. In this manner, Voice introduces an external argument as a participant to the event, which is a similar manner an applicative head introduces its argument, as will be discussed in the following section.

I assume that causatives are bi-eventive (Parsons 1990; Pylkkänen 2002; Cuervo 2003). For example, Pylkkänen (2002) argues that causatives are bi-eventive structures in which the predicate CAUSE introduces an implicit event argument, a causing event, to the VP describing a caused event. Under this theory, CAUSE is separated from an external argument introducing head, Voice. So, under this separation, what Voice does is to relate its argument to the event introduced by CAUSE, which is called non-Voice bundling. There is another variation of this,

namely Voice bundling in which Voice and CAUSE are bundled together having the causative relation and the external theta role into one syntactic head, as illustrated in (2):



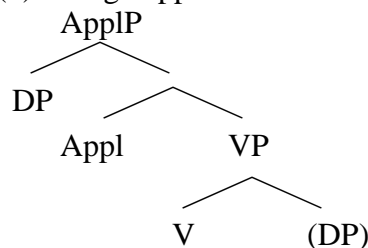
I assume that Korean is a Voice bundling language with Son (2006); that is, as in (2), CAUSE and the external thematic relation comprise one syntactic head, Voice, in Korean causatives.

As will become clear later, in passives, an external argument is an affectee unlike an external argument in casuatives that is a causer. Thus, I assume that Voice in passives consists of an AFFECT relation and an external theta role. AFFECT relation in Voice realizes the external argument as an affected participant of VP.

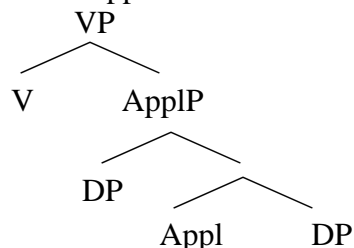
## 2.2 Syntax and semantics of applicative

Central to the proposed analysis in the paper is the syntax and semantics of applicatives, as in Pykkänen (2000, 2002) and in Cuervo (2003). Building on the previous studies on Bantu applicatives (Baker 1988; Bresnan and Moshi 1993; Marantz 1993), Pykkänen proposed two distinct types of applicatives, namely a high applicative and low applicative, according to whether the applicative head relates the DP in its specifier to an event VP (3a), or to an individual, an object DP (3b):

(3) a. High applicative



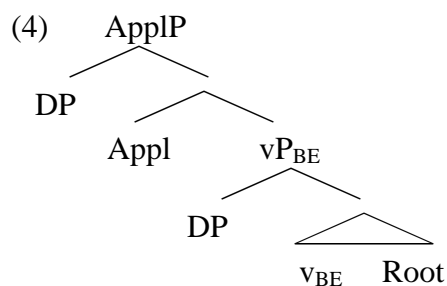
b. Low applicative



In both types of applicatives, an applied argument asymmetrically c-commands a direct object, which is a well known asymmetry in applicatives across languages (Barrs and Lasnik 1986; Marantz 1993). Relevant to this asymmetry is a scope property in which the applied argument scopes over the theme argument but no inverse scope is allowed (e.g., Marantz 1993).

The syntax and semantics of a high applicative is of particular interest to the proposed analysis. As in (3a), a high applicative licenses the applied DP in a position external to VP, in a parallel manner to Voice introducing the external argument in its specifier position. Semantically, the applicative head adds a participant to the event by the rule of Event Identification, as Voice head does. Under this view, a high applicative denotes a relation between an individual and an event. Thus, in principle, this relation can be maintained without the object DP, as the possibility of high applicatives appearing with unergatives indicates (Pylkkänen 2002). According to Pylkkänen, the universal inventory of semantics of a high applicative is various, being benefactive, instrumental, or locative and so forth, and thus languages can vary by selecting a different applicative head.

In Cuervo (2003), it is argued that there is another type of applied argument in addition to a high or low: an affected applied argument. As illustrated in (4), the applied argument is affected by the stative event:



Although it is argued in Cuervo (2003) that an affected applicative is different from a high applicative with respect to its complement, having  $vP_{BE}$ , I assume that an affected applicative is a

subtype of a high applicative in a broad sense that it denotes a relation between an individual and an event.<sup>3</sup> I also assume that the semantics of a high applicative head and of an affected applicative can be bundled together constituting one head. As will be detailed later, one type of Korean causative is characterized as having an affected instrumental applicative as a complement.

### 2.3 Basic Data

Both intransitive and transitive verbs can be marked with the -I morpheme appearing in causatives while only transitive verbs can be marked with the morpheme appearing in passives (Yang 1979; Son 2006).<sup>4</sup> Thus, regarding the distribution of the verbs, only transitive verbs are allowed in both causatives and passives. Ditransitive verbs (e.g., ‘give’, ‘receive’), on the other hand, cannot be marked with the -I morpheme; thus, they appear in neither causatives nor passives (Kang 1997; Yeon 1991, 2003). For the purpose of the paper, I consider the causatives and passives that appear only with transitives and ditransitive verbs.

Causatives in Korean can be classified into two types with respect to the scope of manner adverb modification (Um 1995; A. Kim 1998; Son 2006):

- (5) a. emma-ka      ai-eykey      chayk-lul      **ppali**      ilk-hi-ess-ta  
          mother-NOM   child-DAT      book-ACC      quickly      read-I-PAST-DEC  
       i)      ‘Mother *quickly made* the child read the book.’  
       ii)     ‘Mother made the child *quickly read* the book.’
- b. Emma-ka      ai-eykey      os-ul      **ppali**      ip-hi-ess-ta  
          mother-NOM   child-DAT      clothes-ACC      quickly      wear-I-PAST-DEC  
       i)      ‘Mother *quickly dressed* the child.’  
       ii)     \* ‘Mother made the clothes to be *quickly put on* the child.’

<sup>3</sup> Another property that distinguishes the two is as to whether an applicative is embedded under dynamic v (affected applicative) or Voice (high applicative). The point is that an affected applicative is sandwiched between two events. Under the present framework where a bi-eventive approach to causatives is assumed, this property of the affected applicative can apply without modification.

<sup>4</sup> The transitive verbs that can appear in each structure appear to overlap; for example, Yang investigated 100 representative transitive verbs in Korean among which 69 verbs can appear in both structures (see Baek 1997; H. Kim 2005 for similar conclusions).



With the modification of the manner adverb, (5a) is ambiguous, having two readings, but (5b) is not. In particular, the caused event (ii) in (5a) can be modified by the adverb ‘quickly’ but the caused event (ii) in (5b) cannot. The verbs that belong to type (5a) causatives are *takk-li* ‘make x clean’, *ssu-i* ‘make x write’, *ssel-li* ‘make x cut’, and *cap-hi* ‘make x hold/catch’ and so on, while the verbs that belong to type (5b) causatives are *mek-i* ‘feed’, *sin-ki* ‘put x on one’s foot’, *ep-hi* ‘put x on one’s back’, and *mwul-li* ‘put x in someone’s mouth’ etc. Following the distinction in Son (2006), I will call the former a *non put on* type and the latter a *put on* type causative. The different pattern of the manner adverb in the two types of causatives will be explained later as the paper proceeds.

The passive type shown in (6) explored in this paper is called adversity passive in the literature in that the nominative subject is adversely affected by the event denoted by the verb (Hong 1991; J. Park 1994; Yeon 1999, 2003; N. Song 2002; H. Kim 2005; S. Park 2005 among others):<sup>5</sup>

(6) Minsu-ka            kay-eykey    tali-lul        mul-li-ess-ta  
 Minsu-NOM        dog-DAT     leg-ACC       bite-I-PAST-DEC  
 ‘Minsu got bitten (his) leg by a dog.’

In (6), Minsu is adversely affected by the event of being bitten his leg by a dog. In this type of a passive, there is generally a possession relation between the nominative subject and the theme.

The complete properties of the passive will be detailed later in the paper.

<sup>5</sup> There is another type of passive marked with the -I morpheme, inanimate subject passive (i) which is often called middle or anticausative in the literature (K. Lee 1987; N. Song 2002; Yeon 2003; S. Park 2005) where its semantic properties are main topics. Due to the lack of studies of its syntax, I will leave the structure of this type of a passive for a future research.

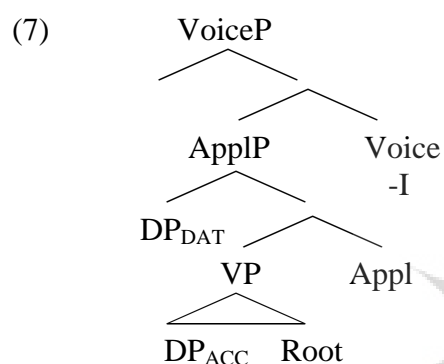
- (i) a. I chaky-i            manhun    salamtul-eykey    ilk-hi-ess-ta  
 this book-NOM        many    people-DAT        read-I-PAST-DEC  
 ‘This book was read by many people.’  
 b. mun-i            yel-li-ess-ta  
 door-NOM        open-I-PAST-DEC  
 ‘The door was opened.’

Now I turn to the proposal for the syncretism of -I and the consequences of the proposal.

### 3. Outline of the proposal and the consequences

#### 3.1 The proposal: -I morpheme selects applicatives

The main claim of the paper is that the occurrence of the -I morpheme in different syntactic contexts—causatives and passives—is due to a shared syntactic property between them, the presence of a high applicative:



I argue that in both causatives and passives, as illustrated in (7), the -I morpheme is realized under Voice when Voice selects the same complement structure, ApplP where a dative DP is an applied argument. The proposal can thus explain the absence of the morpheme in ditransitives. As will be discussed later, ditransitives are argued to include a PP as a complement (Jung and Miyagawa 2003; S. Park and Whitman 2003); therefore, the -I morpheme cannot be inserted into ditransitives where a high applicative structure is absent.

As stressed in the previous section, the morpheme is not sensitive to the semantic contents of the Voice head. In causatives, the semantics of Voice is CAUSE but in passives it is AFFECT. Thus, the argument introduced by Voice in causatives is a causer but the one introduced by Voice in passives is an affectee, which is similar to the subjects of the English *have* (Cowper 1989; Ritter and Rosen 1993, 1997). It was observed that the subjects of *have* taking non nominals with an embedded subject as complements are interpreted as a either causer or experiencer. In

particular, this type of *have* was argued to take an event as a complement without specifying particular thematic roles to its subjects. Interestingly, these properties of *have* is similar to those of the -I morpheme shown in this paper. Thus, the analysis proposed for the -I morpheme may work for the distribution of *have* with non nominal complements.<sup>6</sup>

Evidence for the presence of ApplP in causatives and passives is based on the scope of various adverbs and the behavior of the dative argument with respect to binding as well as morphosyntactic and semantic properties of causatives and passives. For example, ApplP can be modified by adverbs like ‘quickly’ or ‘again’, but cannot be modified by agent oriented adverbs like ‘on purpose’. A further point to be noted is that the heads in which the -I morpheme appears do not select a semantically homogeneous ApplP. Even though it is an instrumental Appl in all contexts as will be evidenced by morphological marking patterns on dative argument, only a *put on* type causative belongs to an *affected* instrumental.

### 3.2 The consequences

The current proposal that the -I morpheme is inserted into the head that selects a high applicative as a complement posits that causatives in Korean select a high applicative structure as a complement. To the extent that the present proposal is correct, it provides strong evidence for expanding the typology of the complement selection of causatives in Pylkkänen (2002). The result of this expanding is a more constrained theory on the complement selection of causatives: while Appl and Voice are complements that causatives can select, they are distinct complements in terms of semantics.

In her theory of causatives, Pylkkänen (2002) proposes that the size of the complements of causatives can vary: there are phase-selecting causatives that select a constituent that has an

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<sup>6</sup> English *have* may be viewed as being inserted into an external argument introducing head when the head selects a high applicative complement structure where the embedded subject is an applied argument.

external argument (e.g., VoiceP), and there are verb-selecting causatives that select VP without an external argument. They are argued to be different with respect to the types of adverbs that can intervene between CAUSE and a root. These relations are presented in the following table with comparison to Korean causatives:

Table 1: *The correlation of the complement selection of causatives*

	<b>Phase</b>	<b>Verb</b>	<b>Applicative (Korean)</b>
a. Agent-oriented modification of caused event is possible (due to the presence of VoiceP)?	Yes	No	No
b. High applicative morphology between root and CAUSE is possible?	Yes	No	Yes

Pylkkänen argues that there is a correlation between (a) and (b). Causativization can embed a high applicative (b) if agent modification of the caused event is possible (a) and vice versa. Importantly, according to Pylkkänen, satisfying (a) indicates that the complement of causatives include VoiceP. Given this, she further argues that causativization can embed a high applicative (b) if it can embed VoiceP (a), and vice versa. These correlations hold with both phase-selecting and verb-selecting causatives: positively in phase-selecting causatives and negatively in verb-selecting causatives. In this sense, Pylkkänen argues that causativization treats Appl and Voice as ‘a natural class’. However, the proposed structure in (7) shows that this correlation does not hold in Korean, which is also indicated in Table 1: Korean causatives embed a high applicative (b) without embedding VoiceP (a). That is, causatives in Korean are not phase-selecting causatives; nevertheless, they can embed a high applicative, as against to Pylkkänen’s claim.<sup>7</sup> This empirical finding has consequences for 1) the complement selection of causatives, 2) Pylkkänen’s natural class treatment of Appl and Voice: 1) there is another type of complement selection, namely

<sup>7</sup> Also note that Korean causatives do not belong to verb-selecting causatives.

applicative selection, 2) causativization treats Appl and Voice as a natural class but *not* in the sense of Pylkkänen. The first consequence is straightforward: Korean causatives are an example of applicative selection. The second consequence requires an explanation. Appl and Voice can be considered as a natural class in the sense that they can be selected by causatives as complements, but not in the sense that embedding of one implies the embedding of the other as argued in Pylkkänen. In other words, even if a causativizer can embed a high ApplP, this does not necessarily imply that it can embed VoiceP, as evidenced by the Korean cases. From this outcome, it follows that the correlation with respect to an agent adverb modification does not hold either: even if a causativizer can embed a high ApplP, this does not predict that its caused event can be modified by an agent oriented adverb. I argue that this lack of correlation is due to different semantics of Appl and Voice. Voice introduces an agent as widely assumed across the literature, but this is not the case for Appl. As will be demonstrated through Korean causatives, Appl in causatives does not introduce an agent argument but an instrument.<sup>8</sup> Support for this claim is also found in another language, Niuean, a Polynesian language of the Tongic subgroup. In this language, instrumental applicatives are employed in causatives as a tool to extend the argument structure of a causative verb (Massam, Gould, and Patchin 2007). From the semantic difference between Appl and Voice suggested above, it follows that ApplP and VoiceP pattern differently with respect to an agent oriented modification of a caused event.

In short, Korean causatives provide evidence for expanding the typology of the complement selection of causatives, by adding an applicative selection. However, due to its different semantics from that of VoiceP, it patterns differently from VoiceP with respect to the scope of agent oriented adverb modification.

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<sup>8</sup> This is also true for other types of high applied arguments as well, for example, a locative and benefactive argument. The prediction is that these types of arguments will not allow an agent oriented adverb modification.

#### 4. (Morpho-) Syntax and semantics of causatives and passives: instrumental applicative

Causatives and passives in Korean show morphosyntactically and semantically similar properties, which leads to the conclusion that their embedded clauses can be assimilated to a certain type of a high applicative structure. This section discusses such properties.

It was shown earlier that Korean has two types of causatives with respect to manner adverb modification. Even though they show a different pattern with respect to the modification, both types of causatives show the same argument structure, as shown in (8):

- (8) a. emma-ka      ai-eykey      chayk-lul      ilk-hi-ess-ta  
mother-NOM    child-DAT    book-ACC    read-I-PAST-DEC  
'Mother made the child read the book.'
- b. Emma-ka      ai-eykey      os-ul      ip-hi-ess-ta  
mother-NOM    child-DAT    clothes-ACC    wear-I-PAST-DEC  
'Mother dressed the child.'

In both types of causatives, the causer argument is nominative marked, the causee is dative marked, and the theme is accusative marked. The verb in each causative is marked with the -I morpheme. In these respects, passives pattern the same as causatives:

- (9) Inho-ka      Mia-eykey      ton-ul      ppayass-ki-ess-ta  
Inho-NOM      Mia-DAT      money-ACC    take away-I-PAST-DEC  
'Inho got the money taken away by Mia.'

The verb in passive (9) is marked with the -I morpheme; the arguments of which are nominative, dative, and accusative marked. In causatives, these arguments are all obligatory, while in passives the accusative argument can be absent.<sup>9</sup> Importantly, in both constructions, the dative argument is obligatory (Um 1995 for causatives, S. Park 2005 for passives). Thus, the argument structure of causatives and passives fits with that of an applicative structure.

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<sup>9</sup> This property of the passives will be detailed in section 6.1.

The dative and accusative arguments in causatives and passives also satisfy another syntactic property of applicatives, that of showing an asymmetric c-commanding relation. In the *non put on* type causative (10) and the *put on* type causative (11), the quantified dative argument c-commands the accusative pronoun as in sentences (a) but not vice versa as in sentences (b) (adopted from I. Lee 1997):<sup>10</sup>

(10) *non put on* type

a. na-nun [motun cakkatul]<sub>1</sub>-eykey kutul<sub>1</sub>-uy chay-lul ilk-hi-ess-ta  
 I-TOP all authors-DAT their-GEN book-ACC read-I-PAST-DEC  
 'I made [all authors]<sub>1</sub> read their<sub>1</sub> books.'

b. \*na-nun kukestul<sub>1</sub>-uy cakkatul-eykey [motun chay-lul]<sub>1</sub> ilk-hi-ess-ta  
 I-TOP their-GEN authors-DAT all book-ACC read-I-PAST-DEC  
 'I made their<sub>1</sub> authors read [all books]<sub>1</sub>.'

(11) *put on* type

a. na-nun [motun cwuin]<sub>1</sub>-eykey kutul<sub>1</sub>-ey os-lul ip-hi-ess-ta  
 I-TOP all-GEN owner-DAT their-GEN clothes-ACC wear-I-PAST-DEC  
 'I made [all owner]<sub>1</sub> wear their<sub>1</sub> clothes.'

b. \*na-nun kukestul<sub>1</sub>-uy cwuin-eykey [motun os]<sub>1</sub>-lul ip-hi-ess-ta  
 I-TOP their-GEN owner-DAT all clothes-ACC wear-I-PAST-DEC  
 'I made their<sub>1</sub> owner wear [all clothes]<sub>1</sub>.'

Due to a possessive relation requirement between the nominative subject and the theme in passives as mentioned earlier, it is not possible to build passive examples equivalent to the causatives, as in (10) and (11) where there is a possessive relation between the dative and theme arguments. Such sentence would be semantically anomalous. However, by employing quantified dative and accusative arguments in passives, an asymmetric c-command relation between the two arguments can be shown:

<sup>10</sup> I. Lee (1997) tested whether a dative goal argument in ditransitives has argument status by employing the tests in Barrs and Lasnik (1986). I extend one of the tests to the dative argument in causatives and passives.

(12) na-nun etten totuk-eykey motun chay-lul ppay-ki-ess-ta  
 I-TOP some thief-DAT all book-ACC take away-I-PAST-DEC  
 'I got all (my) books taken away by a thief.'

- i) Dative DP > Accusative DP; 'There is one thief who took away all the books.'
- ii) \*Accusative DP > Dative DP: \*'For every book, there is a thief who took away that book.'

Assuming, with Aoun and Li (1989, 1993), that scope mirrors c-command, the non availability of inverse scope indicates that the dative argument asymmetrically c-commands the accusative argument.

The discussion of the argument structure and the structural relation between dative and accusative arguments indicates that the embedded clauses of causatives and passives satisfy the (morpho-)syntactic properties of applicatives. Now a question arises: Which type of applicative do they belong to: low or high? The semantics of the embedded clauses of causatives and passives indicates that they belong to the high applicative group. It is well established in Korean, either through implicit or explicit argumentation, that there is a thematic relation between the dative argument and the embedded clause, although there is no agreement on what type of a thematic relation it should be (e.g., Shibatani 1973; Um 1995, Son 2006 for causatives, Whitman and Han 1988, A. Kim 1998, H. Kim 2005 for passives). For example, in *non put on* type causatives, a causee is thematically related to a caused event and traditionally the causee is considered the agent of the caused event.<sup>11</sup> Crucial to the present discussion is the fact that the embedded clause in causatives and passives involves a relation between an individual and an event, as in a high applicative.

The next question is then what type of high applicative is involved in causatives and passives. Morphological marking patterns on the dative argument suggest that the relevant high applicative in causatives and passives is instrumental, as similar to those of Niuean causatives

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<sup>11</sup> It will be shown shortly in this section and in the subsequent sections that a causee as well as a dative DP in passives cannot be treated in terms of an agent.



(Massam, Gould, and Patchin 2007) mentioned earlier. *Put on* type causatives allow an inanimate causee as well as an animate causee but with a different case marker, which is also the same for passives:<sup>12</sup>

(13) a. *put on* type causative

Emma-ka	ai-eykey/inhyung-ey	os-ul	ip-hi-ess-ta
mother-NOM	child-ANI.DAT/doll-INANI.DAT	clothes-ACC	wear-I-PAST-DEC

‘Mother dressed the doll/the child.’

b. passive

Suni-ka	Minsu-eykey/cha-ey	muli-lul	nul-li-ess-ta
Suni-NOM	Minsu-ANI.DAT/car-INANI.DAT	head-ACC	press-I-PAST-DEC

‘Suni got her head pressed by Minsu/by a car.’

In (13), the animate causee is marked with *-eykey* while the inanimate causee is marked with *-ey*. Each corresponding argument in the passive (13b) shows the same pattern. Notably, the inanimate dative marker is homophonous with one of the instrument markers in Korean:

(14) a. *na-nun swuchpul-ey*

I-TOP	charocoal fire-STATIC.INSTR	koki-lul	meat-ACC	kwuw-ess-ta
				roast-PAST-DEC

‘I roasted the meat on the charocoal fire.’

b. *na-nun swuchpul-lo*

I-TOP	charocoal fire-ACTIVE.INSTR	koki-lul	meat-ACC	kwuw-ess-ta
				roast-PAST-DEC

‘I roasted the meat using the charocoal fire.’ (K. Lee 1987)

In Korean, there are two types of instrument markers (K. Lee 1987): static instrument marker *-ey* in (14a) and active instrument marker *-(u)lo* in (14b). According to K. Lee (1987), the former is compatible with an agent who makes use of an instrument in situ, while the latter is compatible with an agent who manipulates an instrument. Importantly, the inanimate dative marker in causatives and passives in (13) is the same as the static instrument marker, *-ey* in (14a). Thus, it is

<sup>12</sup> It is not the case that an inanimate dative DP is always possible in the causatives and passives. The availability of the argument depends on the lexical semantics of the verb. For example, as shown in (i), an inanimate DP is not possible, since it is semantically anomalous for *a car* to hold one’s hand:

(i) Suni-ka	Minsu-eykey/*cha-ey	son-ul	cap-hi-ess-ta
Suni-NOM	Minsu-DAT/*car-DAT	hand-ACC	hold-I-PAST-DEC

‘Suni got her hand held by Minsu/\*a car’

possible to interpret the arguments marked with the marker *-ey* in (13) as instruments. Historical evidence tells that an animate DP in causatives and passives can also be interpreted as an instrument. In Middle Korean, a causee was marked with the instrumental marker *-(u)lo* (J. Park 1994):<sup>13</sup>

(15) ai-**lo**                      hwenhi              tung-ul              kulk-hi-ko  
 Child-ACTIVE.INSTR      cool                  back-ACC          scratch-I-and  
 ‘[I] made my child scratch my back cool [i.e. relieving the itch].’      (J. Park 1994)

Another interesting aspect of (15) is that the sentence also has a passive reading if the modifier ‘cool’ is omitted; ‘I got my back scratched by my child’. Both synchronic and diachronic patterns of morphological marking on dative arguments in causatives and passives are revealing in that the dative arguments can be interpreted as instruments, regardless of the fact that they are marked with dative. For example, in causatives, a causer uses a causee as an instrument to make a relevant event take place. In fact, it is argued that a causee in causatives can be synchronically marked with an instrument marker, if an appropriate context is given (J. Park 1994).

I will assume that an approach treating the dative argument in causatives and passives semantically as an instrument is correct. In the sections to follow, I will show how a high instrumental applicative approach fares better than previous approaches to causatives and passives, thereby capturing the syncretism of the *-I* morpheme.

## 5. Applicatives in causatives

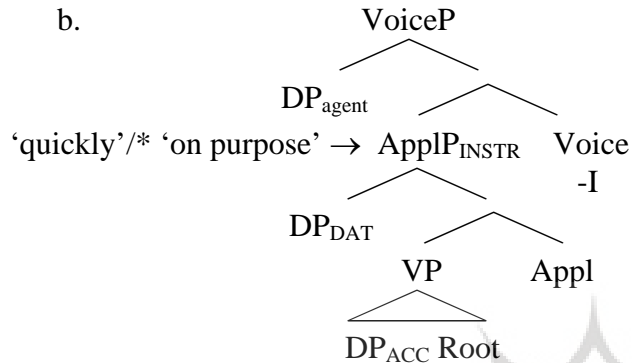
The discussion in the previous section indicates that the embedded phrases in causatives and passives can be categorized as high instrumental applicatives. This section provides further support to the high instrumental applicative analysis. Specifically, by comparing Korean

<sup>13</sup> I change the morpheme glosses in example (15) in accordance with the context of this paper.

causatives with those in other languages (e.g., Japanese and Italian), I argue that causatives marked with the -I morpheme must embed a high applicative, as illustrated in (16) and (17).<sup>14</sup>

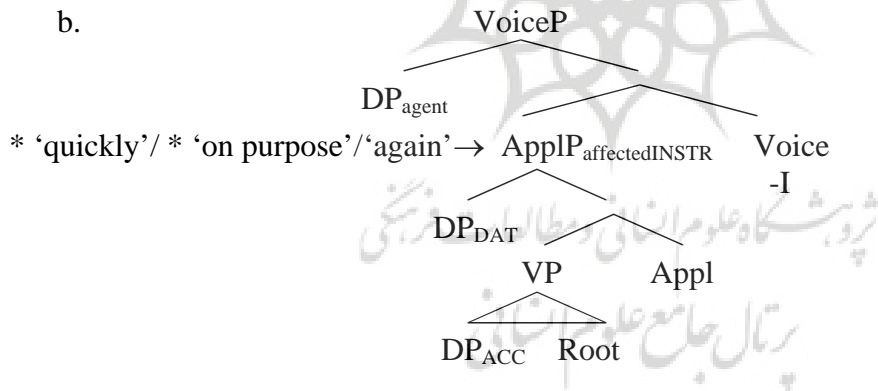
(16) *non put on* type causative

a. Suni-ka      Minsu-eykey    chayk-lul      ilk-hi-ess-ta  
 Suni-NOM    Minsu-DAT    book-ACC      read-I-PAST-DEC  
 ‘Suni made Minsu read the book.’



(17) *put on* type causative

a. Suni-ka      Minsu-eykey    os-ul      ip-hi-ess-ta  
 Suni-NOM    Minsu-DAT    clothes-ACC    wear-I-PAST-DEC  
 ‘Suni dressed Minsu.’



The two types of causatives are similar in that Voice in both structures selects a high applicative as a complement; importantly, this makes the presence of the -I morpheme in both structures possible.<sup>15</sup> We will see evidence from binding facts and adverb modification of ‘on purpose’ that

<sup>14</sup> Regarding Italian causatives, I consider *Faire-Infinitif* (FI) constructions (Kayne 1975; Burzio 1986) only.

<sup>15</sup> It is not incorrect that the two types of causatives can be grouped together in terms of having the same type of Voice; hence the presence of the -I morpheme in the causatives. However, as will become clear later, this cannot explain the presence of the -I morpheme in passives.

the -I morpheme is inserted into the head that selects a high applicative type as proposed here but not other types; for instance,  $v_{DO}$  as argued for Korean *non put on* type causatives (Son 2006), for Japanese causatives (Harley 2006), or for Italian causatives (Folli and Harley 2007) (see below). The difference in the animacy restriction on a causee in the two types of causatives will further indicate that  $v_{DO}$  cannot unify the two causatives. The different patterns of adverb modification with ‘quickly’ and ‘again’ reveal what classifies causatives into the two types is the type of applicative: Appl (16b) versus affected Appl (17b), which builds on the semantic insight in Son (2006) and the proposal of Cuervo (2003)’s affected applicative in Spanish.<sup>16</sup> Hence, in *put on* type of causatives (17b), we have the bundling of affected and instrumental semantics into one head (i.e., Appl<sub>affectedINSTR</sub>). In other words, the causee in (17b) is not only instrumental but also affected. As will be discussed later, the pattern of the adverb ‘again’ with *put on* type causatives further distinguishes the causatives from ditransitives: the embedded phrase of the causatives cannot be a PP like that of the ditransitives, in contrast to the prediction in Jung and Miyagawa (2004).

### 5.1 Why not $v_{DO}$ as a complement of causatives

Causative constructions like those in Korean are widely attested across languages (e.g., J. Song 1996; 2005). Among them, I compare Korean causatives to those of Japanese and Italian, which are much discussed in the literature, in order to show that Korean causatives are different. In particular, the comparison will reveal that the embedded clause in Korean causatives must be a high applicative.

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<sup>16</sup> Based on the same evidence of the adverb modification, Son (2006) proposed what distinguishes the two types of causatives is agentivity vs. non-agentivity (i.e., stative). However, as will be shown later in the sections, this dichotomy cannot capture the differences between the two types of causatives: in both types of the causatives, the causee is non-agentive.

Japanese and Italian causatives are argued to select an embedded clause with a  $v_{DO}$  head (Harley 2006 for Japanese, Folli and Harley 2007 for Italian). The head  $v_{DO}$  requires its subject to be an agent rather than a causer and in the unmarked case the agent is animate and intentional (Folli and Harley 2005, 2008). Crucial evidence for the claim is the fact that in both Italian and Japanese causatives the dative causee is limited to animates only. If an inanimate causee appears, the causative is ungrammatical, as exemplified with the following Italian causative:

- (18) Gianni ha fatto rompere la finestra a Maria / \*al ramo.  
 Gianni has made break the window to Maria / to the branch  
 ‘Gianni made Maria / \*the branch break the window.’ (Folli and Harley 2007)

Thus, the crucial role of  $v_{DO}$  is to restrict its specifier position to animate agents. Under this view, the binding facts in both languages can be explained. The causee in both Japanese and Italian causatives can bind a reflexive pronoun in the object position as illustrated by a Japanese example in (19):

- (19) Tanaka<sub>1</sub>-ga Suzuki<sub>2</sub>-ni zibun<sub>1/2</sub>-no hon-o yom-ase-ta  
 Tanaka-NOM Suzuki-DAT self-GEN book-ACC read-CAUSE-PAST  
 ‘Tanaka<sub>1</sub> made Suzuki<sub>2</sub> read his<sub>1/2</sub> book.’ (Kuroda 1965)

In (20), the subject oriented reflexive pronoun *zibun* ‘self’ can be bound by the dative argument, which suggests that the causee is a semantic subject (i.e., an agent).<sup>17</sup> The proposal that  $v_{DO}$  can take only an animate agent thus can account for the binding facts. A similar proposal is proposed for *non put on* type causatives in Korean (Son 2006) without considering the binding fact discussed here: the embedded clause is headed by  $v_{DO}$  that requires an animate agent in its specifier position.

However, the binding and adverb modification facts found in Korean causatives suggest that  $v_{DO}$  cannot be a complement of the causative. Unlike Japanese and Italian causatives, not all

<sup>17</sup> The fact shown in (19) suggests that the dative causee is a structural subject as well (Miyagawa 1999; Harley 1995, 2006).

Korean causatives are limited to having only an animate causee. As shown earlier, *put on* type causatives allow both animate and inanimate causees:

- (20) Suni-ka ai-eykey/inhyung-ey os-ul ip-hi-ess-ta  
 Suni-NOM child-DAT/doll-DAT clothes-ACC wear-I-PAST-DEC  
 ‘Suni dressed the doll/the child.’

On the other hand, *non put on* type causatives allow only an animate causee:

- (21) Suni-ka ai-eykey/\*inhyung-ey chak-lul ilk-hi-ess-ta  
 Suni-NOM child-DAT/doll-DAT book-ACC read-I-PAST-DEC  
 ‘Suni made the doll/the child read the book.’

The fact that *put on* type causatives allow an inanimate causee indicates that  $v_{DO}$  cannot be the complement of the causative. The contrast between (20) and (21) suggests that  $v_{DO}$  cannot unify both types of causatives. Although *non put on* type causatives allow only an animate causee,  $v_{DO}$  cannot be the complement either, due to the binding fact. Korean has a reflexive pronoun *caki* ‘self’ that requires a semantic subject antecedent (Shibatani 1973), as the following example illustrates:

- (22) kimssi<sub>1</sub>-nun ku sonye<sub>2</sub>-eykey caki<sub>1/2</sub>-uy pang-ey TV-lul  
 Kim-TOPIC the girl-DAT self-GEN room-to TV-ACC  
 po-la-ko yocheng-ha-ess-ta  
 watch-INDICATIVE-COMP request-do-PAST-DEC  
 ‘Mr.Kim<sub>1</sub> requested the girl<sub>2</sub> to watch TV in his<sub>1</sub>/her<sub>2</sub> room.’ (Adopted from Shibatani 1973)

In (22), the reflexive pronoun *caki* refers to either the agent of the matrix clause ‘Mr. Kim’ or the agent of the embedded clause ‘the girl’. Importantly, however, the reflexive pronoun cannot be bound by a causee (Shibatani 1973; Whitman and Han 1988; Um 1995; D. Lee 2007b), as illustrated in (23):

- (23) Suni<sub>1</sub>-ka Minsu<sub>2</sub>-eykey caki<sub>1/\*2</sub>-uy chayk-lul ilk-hi-ess-ta  
 Suni-NOM Minsu-DAT self-GEN book-ACC read-I-PAST-DEC  
 ‘Suni<sub>1</sub> made Minsu<sub>2</sub> read her<sub>1</sub>/\*his<sub>2</sub> book.’

In (23), the causee ‘Minsu’ cannot bind the reflexive pronoun *caki* ‘self’ while the causer can be a binder. This is also true for *put on* type causatives:

- (24) Suni<sub>1</sub>-ka            Minsu<sub>2</sub>-eykey    caki<sub>1/\*2</sub>-uy        os-ul            ip-hi-ess-ta  
 Suni-NOM            Minsu-DAT        self-GEN            clothes-ACC        wear-I-PAST-DEC  
 ‘Suni<sub>1</sub> made Minsu<sub>2</sub> wear her<sub>1</sub>/\*his<sub>2</sub> clothes.’

The binding facts indicate that the causee in both types of causatives cannot be a semantic subject, being unable to bind the reflexive pronoun; in other words, the causee is not an agent. Another crucial piece of evidence that  $v_{DO}$  cannot be the head of the embedded clause of Korean causatives comes from the fact that an agent-oriented adverb cannot modify a caused event where the causee is the subject (Song 1993; Baek 1997):

- (25) a. Suni-ka            ai-eykey            chayk-lul        **ilpwule**            ilk-hi-ess-ta  
 Suni-NOM            child-DAT        book-ACC        on purpose        read-I-PAST-DEC  
 i)        ‘Suni *on purpose* made the child read the book.’  
 ii)        \* ‘Suni made [the child *read* the book *on purpose*].’
- b. Suni-ka            ai-eykey            os-ul            **ilpwule**            ip-hi-ess-ta  
 Suni-NOM            child-DAT        clothes-ACC        on purpose        wear-I-PAST-DEC  
 i)        ‘Suni *on purpose* dressed the child.’  
 ii)        \* ‘Suni made [the child *put on* the clothes *on purpose*].’

As shown in (25), the adverb modifies the causing event in which the subject is the nominative argument, but it cannot modify the caused event. It should be noted here that the incompatibility of the causee with the adverb also shows that Korean causatives cannot be phase-selecting causatives, as a phase-selecting causative is argued to allow adverbs such as ‘on purpose’ (Pylkkänen 2002) (see section 3.2).

The evidence from binding and adverb modification facts demonstrates that  $v_{DO}$  cannot be the complement of Korean causatives. I argue that the relevant head of the complement is Appl, assuming the properties of Appl as in Pylkkänen (2002). She argues that a high applicative head introduces an argument in a similar fashion to Voice. However, a high applied argument is structurally different from the argument introduced by Voice in that the former merges below the

latter. Semantically, the argument introduced by Appl also differs from the one introduced by Voice: it is non-agentive. The evidence presented in this section shows that the properties of the causee in Korean causatives completely conforms to these properties of a high applied argument. The causee is structurally different from the causer, an external argument of Voice, by merging below it. The causee is also not a semantic subject: it cannot bind a reflexive pronoun and has no intentionality with respect to the caused event, unlike the argument introduced by Voice. Nevertheless, like the external argument introduced by Voice, the causee is thematically related to the caused event. Thus, the properties of the embedded clauses of Korean causatives demonstrate that the embedded clause is a high applicative.

### 5.2 *Put on* type causatives as affected applicatives

In this section, I show that the two types of causatives are not the same with respect to the type of the embedded event, although both involve a high instrumental applicative. In particular, adopting an affected applicative analysis proposed in Cuervo (2003), and by drawing on the semantic insight in Son (2006), I argue that *put on* type causatives are affected applicatives, and this is what distinguishes them from *non put on* type causatives. This semantic difference between the two types of causatives explains the contrast found with the manner adverb modification, introduced earlier in section 2.3.

Cuervo (2003) argues that Spanish has an affected applicative whose semantics denote a relation between an affected individual and an event. In particular, the event is stative, as illustrated in the following Spanish example:

- (26) Pablo      le                      rompió              la      radio              a Valeria  
Pablo      CL.DAT              broke              the      radio              Valeria.DAT  
‘Pablo broke the radio on Valeria’





Sentence (29) shows an ambiguity with respect to ‘again’: the adverb modifies either the causing event or the caused event. Following von Stechow (1996), Son (2006) argues that the first reading is a repetitive reading where the causing event- *Mother putting the clothes on the child*- is repeated. The other reading is a restitutive reading where the caused event, - *the clothes being on the child*-is repeated. Importantly, the possibility of the second reading suggests that the event of an embedded clause of this type of causatives is *stative* (Son 2006).

Thus, the scope ambiguity with ‘again’ and non scope ambiguity with ‘quickly’ in the *put on* type of causatives demonstrate that these causatives involve affected applicatives, which is not the case for the *non put on* type causatives (cf. 16b).

In the next section, building on the outcome of this section, I show that the *put on* type causatives are also structurally different from ditransitives in Korean, as contrary to previous studies on ditransitives (Jung and Miyagawa 2004; D. Lee 2007a, b).

### **5.3 Put on types causatives are not PPs**

Ditransitives in Korean have been argued to have an embedded PP (S. Park and Whitman 2003; Jung and Miyagawa 2004).<sup>19</sup> It also has been noted that the *put on* type causatives are both semantically and syntactically similar to ditransitives (I. Lee 1997; Jung and Miyagawa 2004; D. Lee 2007a, b). The prediction is then that the embedded structure of the *put on* type causatives would be similar to that of ditransitives. In this section, I argue that this is not the case, evidenced by the difference in the adverb modification between the two contexts, which in turn accounts for the absence of the -I morpheme in ditransitives.

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<sup>19</sup> Assuming Harley (2002), Jung and Miyagawa (2004) argue that ditransitives have a different structure depending on the case marking on a goal DP: P<sub>HAVE</sub> when it is accusative marked while P<sub>LOC</sub> when it is dative marked. A similar idea is proposed in S. Park and Whitman (2003): a low applicative vs. a postpositional phrase. Importantly, however, both approaches argue for PP structures when the goal is dative marked. For the purpose of the paper, I am concerned only with the dative marked goal.

*Put on* type causatives and ditransitives syntactically and semantically pattern together (I. Lee 1997; Jung and Miyagawa 2004; D. Lee 2007a, b). Consider the following causative and ditransitive:

(30) a. *put on* type causative

Suni-ka	Minsu-eykey	os-ul	ip-hi-ess-ta
Suni-NOM	Minsu-DAT	clothes-ACC	wear-I-PAST-DEC

‘Suni dressed Minsu.’

b. Ditransitive

Suni-ka	Minsu-eykey	chayk-ul	cwu-ess-ta
Suni-NOM	Minsu-DAT	book-ACC	give-PAST-DEC

‘Suni gave the book to Minsu.’

The ditransitive (30b) is similar to the causative (30a) in terms of argument structure, having a sequence of nominative-dative-accusative arguments. They also pattern the same with respect to passivization:<sup>20</sup>

(31) *put on* type causative

a. os-i	Suni-eyuyhay	Minsu-eykey	ip-hi-e ci-ess-ta
clothes-NOM	Suni-BY	Minsu-DAT	wear-I-PASS-PAST-DEC

‘The clothes was put on to Minsu by Suni.’

b. *Minsu-ka	Suni-eyuyhay	os-ul	ip-hi-e ci-ess-ta
Minsu-NOM	Suni-BY	clothes-ACC	wear-I-PASS-PAST-DEC

‘Minsu was dressed by Suni.’

(32) ditransitive

a. Chayki-i	Suni-eyuyhay	Minsu-eykey	cwu-e ci-ess-ta.
book-NOM	Suni-BY	Minsu-DAT	give-PASS-PAST-DEC

‘The book was given to Minsu by Suni.’

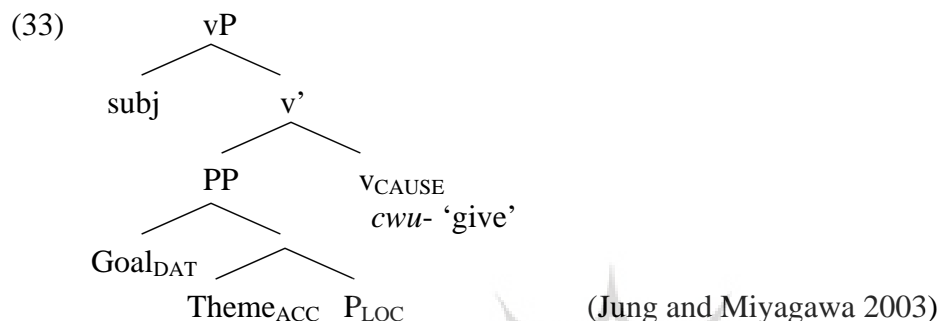
b.* Minsu-ka	Suni-eyuyhay	chayk-ul	cwu-e ci-ess-ta.
Minsu-NOM	Suni-BY	book-ACC	give-PASS-PAST-DEC

‘Minsu was given the book by Suni.’

The themes can undergo passivization across the dative argument as shown in the (a) examples while the dative arguments cannot undergo passivization as shown in the (b) examples.<sup>21</sup> It is

<sup>20</sup> In (31) and (32), (b) examples are grammatical if the theme is nominative marked.

also argued that the semantics of the ditransitives are similar to causatives: the subject *causes* the theme DP to be located to goal DP. (Jung and Miyagawa (2003), assuming Harley 2002). Given the syntactic and semantic similarities between ditransitives and *put on* type causatives, ditransitives are argued to have the structure shown below (a similar proposal is also found in S. Park and Whitman 2003):<sup>22</sup>



The ditransitive verb ‘give’ is decomposed into two heads in (33),  $v_{CAUSE}$  and a postpositional element  $P_{LOC}$ . The dative DP (i.e., goal DP) does not interfere with the passive movement of the theme as the dative is a postposition.

Under the theory by which ditransitives are treated as being syntactically and semantically similar to *put on* type causatives, it is claimed that the *put on* type causative would have the structure in (33), which is a different outcome from the analysis proposed in this paper. In particular, the difference between the two analyses lies in the embedded structure. The evidence from adverb modification presented in the previous section argues that *put on* type causatives have an embedded affected applicative, unlike (33). The difference in adverb modification by ‘again’ shows that *put on* type causative and ditransitives do not have the same embedded structure. Unlike causatives, ditransitives do not show an ambiguity with ‘again’:

<sup>21</sup> The passivization pattern of the causatives does not follow the proposal in McGinnis (2001, 2002, 2004) in which in high applicatives both the applied argument and the theme can undergo passivization. Since the semantics of causatives constitutes a strong evidence for a high applicative approach, I assume such an approach is correct despite the mismatch in the passivization pattern. I will leave passivization as an issue for a future research.

<sup>22</sup> There are more similar properties discussed in the above mentioned literature; for the purpose of the paper, I mentioned only the relevant ones.

- (34) Mia-ka                    kyungchalkwan-eykey                    noymwul-ul tasi                    cwu-ess-ta.  
Mia-NOM                    policeman-DAT                    bribe-ACC again                    give-PAST-DEC
- i) 'Mia *again* gave a bribe to a policeman.'
- ii) \* 'Mia gave [a bribe to a policeman *again*].'  
(i.e., \* 'Mia gave a bribe to a policeman, and a bribe had been given to the policeman before.')

In ditransitive (34), the modification of the embedded structure is absent. The fact shown in (34) demonstrates that there is no predication relation in the embedded structure of ditransitives; therefore, *put on* type causatives does not have the same embedded structure with ditransitives.<sup>23</sup>

To summarize, the embedded clause of the *put on* type causatives involve a predication relation unlike that of ditransitives; thus, they cannot be argued to have the same embedded structure as ditransitives. This conclusion explains the absence of the -I morpheme in ditransitives: Ditransitives do not allow the -I morpheme because they do not embed a high applicative structure.

## 6. Applicatives in passives

### 6.1 Background on passives

Passives have a similar argument structure as causatives, as shown previously. The passive example is repeated below:

- (35) Inho-ka                    Mia-eykey                    ton-ul                    ppayass-ki-ess-ta  
Inho-NOM                    Mia-DAT                    money-ACC                    steal-I-PAST-DEC  
'Inho got the money taken away by Mia.'

It was also mentioned that the passive type shown in (35) is called adversity passive in which the nominative subject is adversely affected by the event described by the verb. Thus, these types of passives do not allow inanimate subjects:

<sup>23</sup> In Beck and Johnson (2004), based on the availability of 'again' modification, it is argued that there is a predication relation in the lower clause of 'give' type English double object constructions and their corresponding DP-PP counterparts. However, as Korean case suggests, it appears that the availability of the modification is not a universal property of ditransitives.

(36) \*chayksang-i Mia-eykey tali-lul cap-hi-ess-ta  
 desk-NOM Mia-DAT leg-ACC hold-I-PAST-DEC  
 ‘The desk had its leg held by Mia.’

The most defining property of adversity passives is that, in general, there exists a possession relation between the nominative subject and the object. The example is repeated below:

(37) Inho-ka Mia-eykey son-ul/\*Suni-lul kulk-hi-ess-ta  
 Inho-NOM Mia-DAT hand-ACC /\*Suni-ACC scratch-I-PAST-DEC  
 ‘Inho got (his) hand scratched by Mia.’

When the theme argument is ‘Suni’, (37) is ungrammatical since no immediate possessive relation can be established between the nominative subject and the theme. A possession relation does not have to be inalienable, as (35) above suggests. However, such a relation is not found in the following adversity passives:

(38) a. Mia-ka swunkyeng-eykey ccoch-ki-ess-ta  
 Mia-NOM policeman-DAT chase-I-PAST-DEC  
 ‘Mia was chased by the policeman’  
 b. Suni-ka saca-eykey mul-li-ess-ta  
 Suni-NOM lion-DAT bite-I-PAST-DEC  
 ‘Suni was bitten by a lion.’

The absence of the possessive relation is due to the absence of the accusative marked DP. That is, in these examples there is no possession relation in the first place since a relevant theme argument is absent. Nevertheless, the passives belong to an adversity passive, due to the presence of an adversely affected subject (S. Park 2005). Thus, the possessive relation is not an absolute property of an adversity passive.<sup>24</sup> Importantly, note that the semantics of the adversity passives is different from that of causatives. In the passives, the semantic role of the subject is an affectee unlike a causer subject in causatives. Thus, Voice in passives has an AFFECT relation, which realizes the external argument as an affected participant of VP.

<sup>24</sup> Note that an analysis that treats the adversity passives as result of possessor movement (e.g., H. Kim and Pires 2002; H. Kim 2005) does not work for passives like (38).

In the sections to follow, I will limit the discussion to the adversity passives that have both dative and accusative arguments. However, the relevant properties to be discussed can be carried over to those of adversity passives without an accusative argument in the same way.<sup>25</sup>

## 6.2 No passive movement in adversity passives

The current proposal that adversity passives embed a high applicative draws on the analyses of Hoshi (1994a, b) on Japanese adversity passives and English *get* passives, and of S. Park (2005) on Korean adversity passives. According to these analyses, there is no movement in adversity passives, and the subject position is a theta position. One aspect of the no-movement analysis of passives that will be important to the high applicative analysis is that the Voice head under which the -I morpheme is realized can be viewed as selecting the dative argument and the theme argument as its internal arguments as it does in causatives.

Building on previous works on English *get* passives (as in the work of Lasnik and Fiengo 1974) and Japanese adversity passives (Kuroda 1979), Hoshi (1994a) argued that the subject position in both types of passives is a theta position. Thus, there is no passive movement in those passives.<sup>26</sup> Consider the following examples provided as the evidence for no-passive movement in both languages:

(39) English

- a. \*Heed **got** paid to our warning.
- b. Heed **was** paid to our warning.

(Lasnik and Fiengo 1974)

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<sup>25</sup> The passive types shown in (38) may be accounted for under the analysis proposed in this paper. That is, the dative argument is an applied argument introduced in the specifier of ApplP where the accusative argument position is null. For example, in (38b), the dative argument *saca-eykey* 'a lion' is in the specifier of ApplP where the direct object may be unspecified; it could be a Suni's arm or leg that is bitten by a lion. However, this type of an analysis is hard to explain (38a) in which the meaning of the verb 'chase' does not clearly imply a physically affected part of the subject. I will leave this matter as a question for future research.

<sup>26</sup> A similar proposal is provided in Huang (1999) for Mandarin passives. There is a different view on the English *get* passives in which they are derived by a passive movement (Haegman 1985; Taranto 2003); however, these approaches cannot explain the properties shown in (39)-(42).

(40) Japanese

a. \*tyuui-ga      Mary-**ni**      haraw-are-ta  
    heed-NOM    Mary-DAT    pay-PASS-PAST  
    ‘Heed<sub>1</sub> was affected by Mary’s paying it<sub>1</sub>.’

b. tyuui-ga      Mary-**ni yotte**      haraw-are-ta  
    heed-NOM    Mary-to owing      pay-PASS-PAST  
    ‘Heed was paid.’

(Hoshi 1994a)

In both languages, the idiom ‘pay heed’ cannot be passivized in *get* passives (39a) or adversity passives (40a), in contrast to *be* passives (39b) and a corresponding *be* passive in Japanese, *ni yotte* passive (40b) respectively. According to Hoshi (1994a), this fact indicates that the subject position in these types of passives is a theta position. That is, the idioms cannot tolerate the theta role in the subject position when they undergo passivization. This proposal is further supported by the following example where the agent oriented adverb modifies the nominative subject but not the passive *by* phrase:

(41) English

a. Cowens got fouled by Kareem Jabbar on purpose

b. \*Cowens was fouled by Kareem Jabbar on purpose

(Lasnik and Fiengo 1974)

(42) Japanese

a. daitooryoo-ga orokanimo CIA-ni koros-are-te simat-ta  
    president-NOM stupidly CIA-DAT kill-PASS-GER should not have happened-PAST  
    ‘The president, stupidly let the CIA kill him, which he should not have let happen.’

b. ??daitooryoo-ga orokanimo CIA-ni yotte koros-are-te simat-ta  
    president-NOM stupidly CIA-by owing kill-PASS-GER should not have happened-PAST  
    ‘The president, stupidly let the CIA kill him, which he should not have let happen.’

(Kuroda 1979)

In the (a) examples, the nominative subject can license the agent oriented adverb suggesting that the subject is a theta subject. In contrast, in *be* passive examples as in (b), it cannot be licensed by the adverb which suggests that it is a non theta subject. Thus, the nominative subjects in English *get* passives and Japanese adversity passives are theta subjects, unlike the subjects in the *be* passive counterpart of each language.



Similar patterns are also found with Korean adversity passives (S. Park and Whitman 2003; S. Park 2005).<sup>27</sup> Idioms are not allowed in Korean adversity passives (43b) and the adverbs like ‘on purpose’ modify the nominative subject only (44).<sup>28</sup>

(43) Idiom

a. Mina-ka            nai-lul            mek-ess-ta  
 Mina-NOM        age-ACC            eat-PAST-DEC  
 ‘Mina got old.’

b. \*nai-ka            Mina-eykey        mek-hi-ess-ta  
 age-NOM        Mina-DAT            eat-I-PAST-DEC  
 ‘Age was eaten by Mary.’

(44) adverb ‘on purpose’

Suni-ka            Minsu-eykey    son-ul            **ilpwule**            cap-hi-ess-ta  
 Suni-NOM        Minsu-DAT        hand-ACC        on purpose        hold-I-PAST-DEC  
 ‘Suni got her hand held by Minsu on purpose.’ (Suni’s intention, not Minsu’s)

Thus, Korean adversity passives pattern in the same way as Japanese adversity and English *get* passives in that the subject position is a theta position and thus there is no movement. Given this conclusion, I assume that the nominative subject originates in the external argument position and the dative DP as well as a direct object in internal argument positions, as argued in S. Park (2005).<sup>29</sup>

In what follows, I show that Korean adversity passives involves a high applicative, but not a low applicative, unlike Japanese adversity passives which are argued to include a low applicative (Pylkkänen 2002).

<sup>27</sup> Korean adversity passives also show the same pattern of contrasts with respect to *be* passive counterpart in the language (for details, see S. Park 2005).

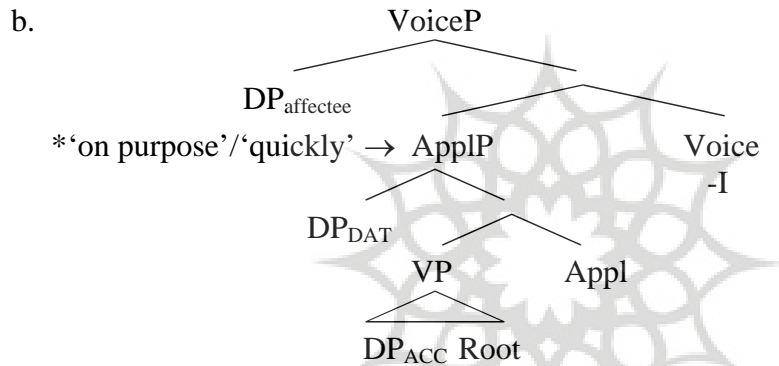
<sup>28</sup> More evidence is discussed for no-movement approach to the adversity passives in S. Park (2005), one of which will be discussed in section 6.4.

<sup>29</sup> Although I adopt a no-movement analysis of adversity passives as in S. Park (2005), I depart from his proposal in which the dative argument in the passives is thematically a source. It is not the case that the dative marker is interchangeable with a source marker in Korean even though in other contexts (e.g., with verbs ‘suffer’ or ‘receive’) it is interchangeable with the source marker.

### 6.3 Adversity passives as a high applicative

Recall that adversity passives can be classified as high applicatives in terms of (morpho-)syntax and semantics (see section 4); for example, an argument structure pattern and asymmetrical c-commanding relation between the dative and accusative arguments satisfy the properties of high applicatives. With the assumption that there is no movement in the adversity passives, the passive (45a) can be illustrated as in (45b):<sup>30</sup>

- (45) a. Suni-ka            Minsu-eykey    son-ul            cap-hi-ess-ta  
           Suni-NOM        Minsu-DAT     hand-ACC        hold-I-PAST-DEC  
           ‘Suni got her hand held by Minsu.’



In (45b), the -I morpheme is realized under a Voice which selects a high applicative as a complement.

Now I show that the structure in (45b) is in fact right by showing that the ApplP in (45b) syntactically as well as semantically patterns in the same way as the ApplP in causatives. Earlier, it was argued that causatives must embed a high ApplP, but neither  $v_{DO}$  nor VoiceP. The evidence for the claim is that the applied argument is a neither structural subject nor semantic subject (i.e., an agent). It is not a structural subject, since it merges below an external argument introduced by Voice. It is not a semantic subject either: it cannot be modified by the agent

<sup>30</sup> The DP in the external argument position is an affectee. Specifically, it could be an affected agent given the fact that it is compatible with the adverb ‘on purpose’. However, this does not mean that the external argument in the passives is a causer like an external argument in causatives, since the argument in the causatives is not an affected argument and thus no adversity meaning is attributed to it.

oriented adverb ‘on purpose’ and it cannot bind an agent oriented reflexive pronoun. These syntactic and semantic properties are also observed with the dative argument in adversity passives. Assuming that there is no movement in the passives, the dative argument merges below an affectee, an external argument introduced by Voice.<sup>31</sup> It cannot be modified by an agent oriented adverb as shown in the previous section. The example is repeated below:

- (46) Suni-ka            Minsu-eykey    son-ul            **ilpwule**            cap-hi-ess-ta  
 Suni-NOM            Minsu-DAT      hand-ACC        on purpose        hold-I-PAST-DEC  
 ‘Suni got her hand held by Minsu on purpose.’ (Suni’s intention, not Minsu’s)

The adverb modifies the nominative subject only, never the dative argument. The dative argument also cannot bind an agent oriented reflexive pronoun, unlike the nominative subject (Whitman and Han 1988; S. Park 2005):

- (47) Suni<sub>1</sub>-ka    Minsu<sub>2</sub>-eykey    caki<sub>1/2</sub>-uy      pang-eyse      son-ul            cap-hi-ess-ta  
 Suni-NOM    Minsu-DAT    self-GEN      room-in        hand-ACC        hold-I-PAST-DEC  
 ‘Suni<sub>1</sub> got her hand held by Minsu<sub>2</sub> in her<sub>1</sub>/\*his<sub>2</sub> room.’

The evidence shown in (46) and (47), thus, demonstrates that the ApplP in the adversity passives patterns with the ApplP in causatives indicating that it is the same type of high applicative as in causatives. Another crucial piece of evidence for the same conclusion is that the dative argument in the adversity passives can be inanimate, in addition to animates:

- (48) Suni-ka    sansathay-ey            tali-ul            mut-hi-ess-ta  
 Suni-NOM    landslide-DAT.INANIMATE    leg-ACC            bury-I-PAST-DEC  
 ‘Suni got her leg buried by landslide.’

The fact in (48) strongly corroborates the claim that v<sub>DO</sub> cannot be a complement of the adversity passives. So the evidence in (46)-(48) together argue that adversity passives select a high applicative as a complement that is the same type as in causatives.

<sup>31</sup> This is also evidenced by no scope ambiguity between the nominative and dative DPs, as will be discussed in the next section.

A remaining question is whether ApplP in the adversity passives pattern with *put on* type or *non put on* type causatives, being an affective applicative or not. The manner adverb modification facts suggest that it patterns with the latter:

- (49) Suni-ka Minsu-eykey son-ul **ppali** cap-hi-ess-ta  
 Suni-NOM Minsu-DAT hand-ACC quickly hold-I-PAST-DEC  
 (i) ‘Suni *quickly* [got her hand held by Minsu].’  
 (ii) ‘Suni got [her hand *held quickly* by Minsu].’

There can be two readings with the adverb ‘quickly’, as indicated in (49). In particular, the adverb can modify the embedded clause as in the *non put on* type causatives.

To sum up, the presented evidence shows that ApplP in the adversity passives belongs to a high applicative like the ApplP in causatives.

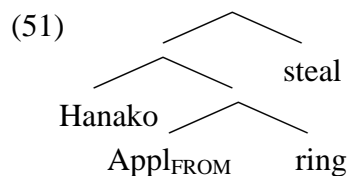
#### 6.4 Adversity passives are not low applicatives

Japanese has adversity passives (Kuno 1973; Howard and Niyekawa-Howard 1976; Hoshi 1994a, b among many others) similar to the Korean ones (N. Song 2002). Based on the classification of Kubo (1992) on Japanese adversity passives, Pylkkänen (2002) argues that Japanese adversity passives can be classified into a low and high applicative. Interestingly, Korean adversity passives exhibit comparable properties to those of Japanese ones that are classified into a low applicative. In this section, I argue that unlike Japanese adversity passives, Korean adversity passives do not include a low applicative as a complement due to apparent differences between the two languages.

Pylkkänen argues that the following type of Japanese adversity passive can be classified into a low applicative:

- (50) Hanako-ga dorobo-ni yubiwa-o to-rare-ta.  
 Hanako-NOM thief-DAT ring-ACC steal-PASS-PAST  
 ‘Hanako was affected by the thief stealing her ring.’

The adversity passives like (50) require a possessive relation between the nominative subject and the theme similarly to Korean adversity passives. Further, note that the argument structure of (50) is also similar to that of Korean adversity passives. The passives like (50) also satisfy the diagnostic test of low applicatives, namely verbal semantics: they are not possible with a static verb like ‘hold’ as the verb does not indicate a transfer of possession.<sup>32</sup> Given the possessive relation and the facts that these types of adversity passives satisfy the diagnostic test of a low applicative, Pykkänen proposed the following partial structure for (50):



In (51), the possessive relation between the nominative subject and the theme in (50) is represented through a low source applicative where the nominative subject is an applied argument and the theme is an object. Later, after a passive movement, the applied argument will be in subject position, and thus the adversity passive in (50) is obtained. The dative DP ‘thief’ does not appear in the structure. Presumably, this is because the dative DP in Japanese adversity passives like (50) has a non argument status like an English *by* phrase in *be* passives (Pykkänen 2002).

However, the Korean adversity passives cannot be assimilated to the Japanese ones. As shown previously, the Korean passives are not derived by a passive movement unlike Japanese

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<sup>32</sup> There is another diagnostic test: transitivity test. Japanese adversity passives like (50) pass the test, being incompatible with unergatives. Korean adversity passives also pass this test, being incompatible with unergatives. However, this fact does not seem to constitute evidence for a low applicative analysis for Korean adversity passives. Compatibility with unergatives is a property of a high applicative; however, it does not seem to be a logical conclusion that the incompatibility with unergatives speaks for a low applicative. It does not seem to be the case that every high applicative must be compatible with unergatives. The incompatibility may be because there is a language specific property but not because the relevant applicative is not high. For example, Korean does not allow unergatives in passives unlike Japanese which allows unergatives in a certain type of a passive. It seems that the transitivity test is somewhat independent of the semantics of applicatives.

passives that are assumed to be derived by the movement in Pylkkänen.<sup>33</sup> Moreover, as discussed earlier, the core property in Korean adversity passives is not a possessive relation but adversity effect, as also pointed out by S. Park (2005). It seems that the possessive relation results from an adversity meaning. It is hard to imagine for one to be adversely affected without affecting one's belongings, if any. I assume this is true for Korean.

Scope ambiguity of quantifiers also suggests that structure (51) cannot explain the Korean adversity passives. In (51), the dative argument is not shown because it is not treated as an argument in Japanese, and Pylkkänen does not detail the nature of the relevant head responsible for the dative argument. Yet, given the surface word order in (50), what is clear is that the head licensing the dative DP would merge somewhere above ApplP in (51), after the relevant A-movement takes place. This is represented schematically below:

(52) Hanako<sub>1</sub>-NOM [<sub>XP</sub> thief-DAT [<sub>ApplP</sub> t<sub>1</sub> ring]] steal

Assuming the proposal of Yatsushiro (1999), who argues that scope ambiguity will be observed when the existential quantifier precedes the universal quantifier as the result of A-movement, the frame like (52) predicts scope ambiguity of quantifiers. However, this is not borne out in Korean adversity passives:

(53) nwukwunka-ka nwukwuna-eykey cap-hi-ess-ta  
 Someone-NOM everyone-DAT hold-I-PAST-DEC  
 'Someone was caught by everybody.' (some > every, \*every > some) (S. Park 2005)

No scope ambiguity in (53) suggests that Korean adversity passives do not involve a passive movement (S. Park 2005) but also suggests that the nominative DP must merge above the dative DP in the adversity passives, unlike the one in low applicatives like (51). Non availability of scope ambiguity fact, together with the fact that the dative DP in Korean adversity passives is

<sup>33</sup> Given the argument of Hoshi (1994a, b) on Japanese adversity passives introduced previously, the types of passives discussed in Pylkkänen may be reconsidered in terms of a no-movement approach.

obligatory unlike the one in Japanese adversity passives, indicates that Korean adversity passives cannot have a low applicative like (51) as a complement.

Evidence against the low applicative view for Korean adversity passives is also found in the diagnostics of applicatives. As mentioned earlier, Japanese adversity passives pass the verbal semantics diagnostic. However, this is not the case in Korean. Korean does not pass the verbal semantics diagnostic, being compatible with the static verb ‘hold’:

(54) Suni-ka Minsu-eykey son-ul **cap**-hi-ess-ta  
Suni-NOM Minsu-DAT hand-ACC hold-I-PAST-DEC  
‘Suni got her hand held by Minsu.’

Interestingly, the compatibility with the verbs like ‘hold’ is argued to be the property of a high applicative in Pytkänen (2002). This fact is suggestive in that Korean cannot be assimilated to the low applicative approach. If it were, the fact in (54) would remain unexplained.

In short, the provided evidence strongly suggests that Korean adversity passives cannot be a low applicative as argued in Pytkänen for Japanese adversity passives. Their properties can be better accommodated under the proposed analysis.

## 7. Summary: the locus of variation among the structures

In this section, I discuss the locus of variation among the structures based on the proposed analysis. The discussion is meaningful in that it constitutes a summary of each syntactic context where the -I morpheme appears with respect to the proposed analysis. The following table presents the semantic and syntactic properties of each of the context:

Table 2: Summary of the similarities and differences between causatives and passives

	<i>non put on causative</i>	<i>put on causative</i>	<i>passive</i>
<b>VoiceP</b>	CAUSE, $\theta_{EXT}$	CAUSE, $\theta_{EXT}$	AFFECT, $\theta_{EXT}$
Adversity	No	No	Yes
<b>ApplP</b>	Instrument	Affected instrument	Instrument
Animacy	Animate only	Both animate and inanimate	Both animate and inanimate
'on purpose'	No	No	No
'quickly'	Yes	No, but 'again' is possible	Yes

Regarding causatives, the two different types of causatives are differentiated by the semantics of the complement clause, Appl. In *put on* type causatives, Appl is affected but it is not the case for the *non put on* type causatives. From this, the difference in the adverb modification of 'quickly' between the two types of causatives can be accounted for. As pointed out earlier, this has a consequence for the approach in which causatives select  $v_{DO}$  as a complement (e.g., Harley 2006; Folli and Harley 2007).  $v_{DO}$  cannot unify the two types of causatives in Korean, although causatives can be unified by the same type of the structurally higher head, Voice (or something equivalent to it,  $v_{CAUSE}$ ). The difference in the animacy restriction on the causee in the two types of causatives is another reason to rule out  $v_{DO}$ .

Turning to the differences between causatives and passives, the differences lie in the semantics of Voice: CAUSE versus AFFECT, hence the presence of an adversity effect in the latter. The semantic content of Voice is not the same in causatives and passives, although Voice in each context is realized by the same morpheme -I. What the -I morpheme is concerned with is a certain type of complement of Voice: a high applicative. The different semantics of Voice in each context constitutes a strong support to the view that causatives and passives cannot be unified in terms of the same type of Voice head or  $v_{CAUSE}$ .



Assuming DM, these differences as well as similarities among the contexts can be captured. The syntax generates relevant feature bundles for causatives and passives; for example, CAUSE versus AFFECT. Nevertheless, the morpheme -I can be inserted into each of the contexts, since the relevant structural condition, ApplP, is met in both structures.

## 8. Conclusions

I have argued that, assuming DM, the -I morpheme can appear in the two different syntactic contexts—causatives and passives—due to a shared syntactic structure between them, the presence of a high applicative complement structure. This analysis is significant because it provided a unified syntactic account for the distribution of the morpheme by capturing similarities as well as differences between the syntactic contexts where the morpheme appears, which previous analyses on the morpheme could not explain.

The proposed account also has significant implications for the theory of causatives. Under this proposal, causatives select an applicative that is a new type of a complement of causatives, which was absent in Pylkkänen (2002)'s classification. An applicative-selecting causative patterns differently from a verb-selecting causative in its being able to embed an external argument, and from a phase-selecting causative in its being incompatible with an agent oriented adverb. I argued that the difference is due to different semantics of Appl and Voice. Thus, the proposed account provides a more constrained theory on causativization with respect to Voice and Appl, thereby accommodating a wider range of empirical facts, such as Korean facts. Potential support for the consequences is found in the pattern of Niuean causatives which select an instrumental applicative as a complement (Massam, Gould and Patchin 2007). Although further cross linguistic research in this area is a test for the proposed analysis, the range of facts captured by the proposal pose challenges for alternative views on causatives and passives.

## References

- Aoun, Joseph, and Yen-hui A. Li. 1989. Scope and Constituency. *Linguistic Inquiry* 20:141–172.
- Aoun, Joseph, and Yen-hui A. Li. 1993. *Syntax of Scope*. Cambridge: MIT Press.
- Baker, M. 1988. Theta Theory and the Syntax of Applicatives in Chichewa, *Natural Language and Linguistic Theory* 6:353–389.
- Burzio, L. 1986. *Italian syntax: A government-binding approach*. Dordrecht: Reidel.
- Barss, Andrew, and Howard Lasnik. 1986. A note on anaphora and double objects. *Linguistic Inquiry* 17:347–354.
- Beck, Sigrid, and Kyle Johnson. 2004. Double Objects Again. *Linguistic Inquiry* 35:97–124.
- Beak, Mihyun. 1997. Koran I suffix: A Functional approach, Doctoral dissertation, Rice University, Houston, Texas.
- Bresnan, J. and L. Moshi 1993. Object Asymmetries in Comparative Bantu Syntax. In *Theoretical Aspects of Bantu Grammar 1*, ed, Sam A. Mchombo, 50–93. Stanford: CSLI Publications.
- Cowper, Elizabeth. 1989. Thematic Underspecification: The case of have'. *Toronto Working Papers in Linguistics* 10: 85–93.
- Cuervo, Cristina. 2003. Datives at large, Doctoral dissertation, MIT.
- DéChaine, Rose Marie. 1993. Predicates across categories. Doctoral dissertation, UMass.
- Embick, David. 1997. Voice and the interfaces of syntax, Doctoral Dissertation, University of Pennsylvania.
- Embick, David. 1998. Voice system and the syntax/morphology interface. *MIT Working Papers in Linguistics*. 32: 41–72.
- Embick, David. 2004. Unaccusative Syntax and Verbal Alternation. In *The Unaccusativity Puzzle*, eds. Artemis Alexiadou, Elena Anagnostopoulou and Martin Everaert, 137–158. Oxford: Oxford University Press.
- Folli, Raffaella, and Heidi Harley 2005. Consuming results in Italian and English: Flavors of v. In *Aspectual inquiries*, eds. Paula Kempchinsky, and Roumyana Slabakova, 95-120. Dordrecht: Springer.
- Folli, Raffaella, and Heidi Harley 2007. Causation, Obligation, and Argument Structure: On the nature of little v. *Linguistic Inquiry* 38: 197–238.
- Folli, Raffaella, and Heidi Harley. 2008. Teleology and animacy in external arguments. *Lingua* 118:190–202
- Halle, Morris, and Alec Marantz. 1993. Distributed Morphology and the pieces of inflection. In *The View from Building 20*, eds. Ken Hale and Samuel Jay Keyser, 111-176. Cambridge, Mass: MIT Press.
- Halle, Morris, and Alec Marantz. 1994. Some Key Features of Distributed Morphology. *MIT Working Papers in Linguistics* 21:275–288.
- Harley, Heidi. 1995. Subjects, Events, and Licensing, Doctoral dissertation, MIT.
- Harley, Heidi. 2006. On the causative construction. To appear in *The Handbook of Japanese Linguistics*, eds. Shigeru Miyagawa and Mamoru Saito. Oxford: Oxford University Press.
- Heageman, Liliane. 1985. The GET-passive and Burzio's generalization. *Lingua* 66:53–77.
- Hoshi, Hiroto. 1994a. Passives, causatives, and light verbs: A study on theta role assignment, Doctoral dissertation, University of Connecticut.

- Hoshi, Hiroto. 1994b. Theta role assignment, passivization, and excorporation. *Journal of East Asian Linguistics* 3:147–178.
- Hong, Ki Sun. 1992. Argument Selection and Case Marking in Korean, Doctoral Dissertation, Stanford University.
- Howard, Irwin, and Agenes M. Niyekawa-Howard. 1976. Passivization. In *Syntax and Semantics: A Japanese Generative Grammar*, ed. Masayoshi Shibatani, 201–237. New York: Academic Press.
- Huang, C.-T. James. 1999. Chinese passives in comparative perspective. *Tsing Hua Journal of Chinese Studies* 29:423–509.
- Ippolito, Michela. 2000. Remarks on the argument structure of Romance causatives. Ms. MIT.
- Jung, Yeun-Jin, and Shigeru Miyagawa. 2004. Decomposing Ditransitive Verbs. *Proceedings of SICGG*, 101–120.
- Kang, MyungYoon. 1997. Bare phrase approach to Korean morphological causative/passive construction. *Language Research* 33:79–100.
- Kayne, R. 1975. *French Syntax: The transformational cycle*. Cambridge: MIT press.
- Kim, Ae-Ryung. 1998. VP complements of HI-causative. *Japanese/Korean Linguistics* 8:445-457.
- Kim, Hee-Soo, and Acrisio Pires. 2002. Ambiguity in the Korean Morphological Causative/Passive. *Paper presented at 12th Japanese/Korean Linguistics Conference*.
- Kim, Hee-Soo. 2005. Causatives, passive and their ambiguities in Korean, Japanese, and English. Doctoral dissertation, University of Michigan.
- Kratzer, Angelika. 1996. Serving the external argument from its verb. In *Phrase Structure and the Lexicon*, eds. Johan Rooryck and Laurie Zaring, 109–137. Dordrecht: Kluwer Academic Publishers.
- Kuroda, S.-Y. 1965. Generative grammatical studies in the Japanese language. Doctoral dissertation. MIT.
- Kuroda, S.-Y. 1979. On Japanese passives. In *Exploration in linguistics: Papers in Honor of Kazuko Inoue*. G. Bedell, E. Kobayashi, and M. Mraki eds, 305–347. Tokoy: Kenkyusha.
- Kuno, S. 1973. *The structure of the Japanese language*. MIT Press. Cambridge, MA.
- Lasnik, H., and R. Fiengo. 1974. Complement object deletion. *Linguistic Inquiry* 5-4:535–571.
- Lee, S.C. 1986. Passives and causative construction in Korean: towards a universal characterization in terms of categorial grammar. Doctoral dissertation. The University of Texas at Austin.
- Lee, InQue. 1997. Dative construction and case theory in Korean, Doctoral dissertation, Simon Fraser University.
- Lee, Doo-Won. 2007a. Overt decomposition of the dative verb cwu(ta) and its causativity: malefaction Type. Paper presented at *Harvard International Symposium on Korean linguistics*.
- Lee, Doowon. 2007b. Goals in the ditransitive construction vs. the syntactic subject causees in the Morphological causative. *Studies in Modern Grammar* 47:52–72.
- Marantz, Alec. 1993. Implications of asymmetries in double object constructions. In *Theoretical Aspects of Bantu Grammar*, ed. Sam A. Mchombo, 113–150. Stanford: CSLI Publications.

- Massam, Diane, Issac Gould, and Philip Patchin. 2007. Faka-Niue: Understanding cause in Niuean. Ms. University of Toronto. Toronto, Ontario.
- McGinnis, Marth. 2001. Phases and the Syntax of Applicatives. *NELS* 31:333–349.
- McGinnis, Marth. 2002. Object Asymmetries in a Phase Theory of Syntax. Paper presented at *Proceedings of the 2001 CLA Annual Conferences*, University of Ottawa.
- McGinnis, Martha. 2004. Lethal Ambiguity. *Linguistic Inquiry* 35:47–95.
- Miyagawa, Shigeru. 1999. Causatives. In *The handbook of Japanese linguistics*, ed. Natsuko Tsujimura, 236–268. Oxford: Blackwell.
- Park, Sang Doh. 2001. Passive constructions in Korean. *Harvard Studies in Korean Linguistics* 9:640–649.
- Park, Sang Doh. 2005. Parameters of passive constructions in English and Korean, Doctoral dissertation, Cornell University.
- Park, Sang Doh, and John Whitman. 2003. Direct movement passives in Korean and Japanese. *Japanese and Korean Linguistics* 13:307–321.
- Park, Jeong-Woon. 1994. Morphological Causatives in Korean: Problems in grammatical polysemy and constructional relations, Doctoral dissertation, University of California, Berkeley.
- Parsons, Terence. 1990. *Events in the Semantics of English: A Study of Subatomic Semantics*. Cambridge, Mass: MIT Press.
- Pylkkänen, Liina. 2000. What applicative heads apply to. *U. Penn Working Papers in Linguistics* Volume 6.4.
- Pylkkänen, Liina. 2002. Introducing arguments, Doctoral Dissertation, MIT.
- Ritter, Elizabeth and Sara Thomas Rosen. 1993. Deriving causation. *Natural Language and Linguistic Theory* 11: 519–555.
- Ritter, Elizabeth and Sara Thomas Rosen. 1997. The function of *have*. *Lingua* 101: 295–321.
- Shibatani, Masayoshi. 1973. Lexical versus periphrastic causatives in Korean. *Journal of Linguistics* 9:281–297.
- Song, Jae Jung. 1993. Control and cooperation: Adverbial scope in Korean morphological causatives. *Acta Linguistica Hafniensia* 26:161–174.
- Song, Jae Jung. 1996. Causatives and causation: A universal-typology perspective. London: Longman.
- Song, Jae-Jung. 2005. Non periphrastic causative construction. In *The world Atlas of language structures*, 450–453. eds., Martin Haspelmath, Matthew S. Dryer, David Gil, and Bernard Comrie. Oxford: Oxford University Press
- Song, Nam Sun. 2002. A comparative study of Japanese passive and Korean passive. *Eoneohag / Journal of the Linguistic Society of Korea* 32:165–196.
- Son, Minjeong. 2006. Causation and syntactic decomposition of events, Doctoral dissertation, University of Delaware.
- Taranto, Gina Christine. 2003. An event-structure analysis of causative and passive GET. Ms. University of California, San Diego.
- Um, Hye-Young. 1995. Argument structure of Korean causatives. *Harvard Studies of Korean Linguistics* 6. 423–428. Seoul: Hansin.
- von Stechow, A. The different readings of Wieder 'again': a structural account. *Journal of semantics* 13:87–138.

- Whitman, John, and S. Hahn. 1988. Korean morphological passive/causatives. In *Papers from the Sixth International Conference on Korean Linguistics*, ed. Eung-Jin Baek, University of Toronto.
- Yatsushiro, Kazuko. 1999. Case licensing and VP structure, Doctoral dissertation, University of Connecticut.
- Yang, Dong Whee. 1979. Kwuke uy phi/sa-dong [Passive and causative verbs in Korean]. *Hangeul: Journal of the Korean Linguistic Society* 230:33–49.
- Yeon, Jaehoon. 1991. The Korean causative-passive correlation revisited. *Language Research* 27:337–358.
- Yeon, Jaehoon. 2003. *Korean Grammatical Constructions*. London: Saffron.

