Research Article

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On the causative and passive morphology in Japanese and Korean[1]

Abstract: Drawing on the layered verb phrase hypothesis, the unexpected adversity imposed on the subject of causative–passives in Japanese will be explained by the loci of *-sase* and *-rare*, both of which may instantiate more than one functional heads. This hypothesis also gives an account of the marginal status of passive–causatives whose passivized subject (=causee) is animate. Turning to Korean, /Hi/ is univocally causative, and its apparent use as passive is the result of Voice–Cause bundling. Furthermore, the possible and impossible uses of /Hi/ and /Hu/ as passive morphology result from their selectional properties.

Keywords: causative, passive, layered verb phrase, bundling, Japanese, Korean

1 Introduction

The purpose of this study is twofold. First, I will attempt to argue that Japanese and Korean are uniform in that their causative morphemes may appear either higher or lower than Voice. Furthermore, I will contend that while the passive *-rare* in Japanese may be the exponent of either passive Voice or malefactive (or adversative) High Applicative (Aoyagi 2010), the Korean /Hi/ morpheme is univocally causative, and its apparent passive use results from a structurally reductive process, Voice bundling, in the sense of Pylkkänen (2008).

Japanese and Korean are both head-final agglutinative languages; and voice alternation, including passive and causative, is exercised by suffixation as exhibited in (1) from Japanese and (2) from Korean, respectively.

(1)	a.	*neko-ga*	*nezumi-o*	*tabe-ta*
		cat-NOM	mouse-ACC	eat-PST
		"The cat ate the mouse."		
	b.	*nezumi-ga*	*neko-ni*	*tabe-**rare**-ta*
		mouse-NOM	cat-DAT	eat-PASS-PST
		"The mouse was eaten by the cat."		

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	c.	*John-ga*	*neko-ni*	*nezumi-o*	*tabe-**sase**-ta*
		John-NOM	cat-DAT	mouse-ACC	eat-CAUS-PST
		"John made the cat eat the mouse."			
(2)	a.	*koyangi-ka*	*cwuy-lul*	*mek-ess-ta*	
		cat-NOM	mouse-ACC	eat-PST-DECL	
		"The cat ate the mouse."			
	b.	*cwuy-ka*	*koyangi-eykey*	*mek-**hi**-ess-ta*	
		mouse-NOM	cat-DAT	eat-PASS-PST-DECL	
		"The mouse was eaten by the cat."			
	c.	*John-i*	*koyangi-eykey*	*cwuy-lul*	*mek-**i**-ess-ta*
		John-NOM	cat-DAT	mouse-ACC	eat-CAUS-PST-DECL
		"John made the cat eat the mouse."			

(1a) and (2a) are underlying transitive clauses, from which the passives in (1b) and (2b) and the causatives in (1c) and (2c) are derived. In the passives in (1b) and (2b), the verb stem is suffixed with *-rare* in Japanese and *-hi* in Korean; and in the causatives in (1c) and (2c), the verb stem is suffixed with *-sase* in the former and *-i* in the latter. So far, the exact morpheme-to-morpheme correspondence is found in voice alternation between Japanese and Korean modulo the overt sentence-final declarative marker *-ta* in the latter.

However, as exhibited in the contrast between (3a) and (3b), the causative and passive suffixes may co-occur in Japanese, but not in Korean.

(3)	a.	*neko-ga*	*John-ni*	*nezumi-o*	*tabe-**sase**-**rare**-ta*
		cat-NOM	John-DAT	mouse-ACC	eat-CAUS-PASS-PST
		"The cat was made to eat the mouse by John."			
	b.	**koyangi-ka*	*John-eykey*	*cwuy-lul*	*mek-**i**-(**h**)**i**-ess-ta*
		cat-NOM	John-DAT	mouse-ACC	eat-CAUS-PASS-PST-DECL
		"(int.) The cat was made to eat the mouse by John."			

While the verb stem that is suffixed with the causative *-sase* may further be suffixed with the passive *-rare* in Japanese, the parallel multiple suffixation is impossible in the present-day Seoul Korean.

This study addresses two independent but mutually related questions. First, it is true that multiple verbal suffixation is very productive in Japanese; but while the causative–passive *-sase-rare* as in (3a) is highly productive, the possibility of the oppositely ordered passive–causative *-rare-sase* is very limited if at all. This fact, naturally, calls for a principled account. Second, the Korean /Hi/ suffix, which is realized as *i, hi, li* or *ki*, is sometimes ambiguous between passive and causative. This also needs to be explained.

The organization of this article is as follows. In Section 2, we will discuss highly productive causative–passives in Japanese and note that the source of obligatory adversity on the subject of causative–passive cannot be attributed to Washio's (1993) "adversity by exclusion." Section 3 lays out the theoretical assumptions upon which we will build our arguments in later sections. Most significantly, three separate functional heads, i.e., High Applicative, Voice, and Cause, are recognized under T. In Section 4, we will attempt to answer the question, raised in Section 2, as to why adversity is imposed on the subject of causative–passives irrespective of its inclusion in the passivized event. Section 5 discusses some related issues, including the low productivity and highly marked status of passive–causatives in contrast to causative–passives. In Section 6, extending our "layered verb phrase" hypothesis to Korean, we will provide a novel analysis of the /Hi/ morpheme, which has been held to be ambiguous between causative and passive. We will argue that it is univocally causative, and its passive sense comes as a result of Voice bundling. Section 7 concludes this study.

2 Causative–passive vs passive–causative in Japanese

2.1 Adversity by exclusion

It is often stated that indirect passives in Japanese automatically induce adversity by referring to examples like (4) (Washio 1993: 51).

(4)	*John-ga*	*Mary-ni*	*kodomo-o*	*ker-are-ta*
	John-NOM	Mary-DAT	child-ACC	kick-PASS-PST
	"John was adversely affected by his child being kicked by Mary."			

In (4), the dominant interpretation of *kodomo* "child" is John's child; and since the passive subject *John* is not an argument of the verb stem *ker* "kick," it is usually taken to be an instance of indirect passive. However, the apparent adversity on the part of John is, according to Washio, due to the pragmatic force caused by the lexical semantics of the verb stem *ker*, which describes a rather violent action like kicking John's child. Washio (1993: 51–2) instead claims that the real nature of adversity shows itself in one reading of examples like (5) (Washio 1993: 52).

(5)	*John$_1$-ga*	*Mary$_2$-ni*	*zibun$_{1,2}$-no*	*kodomo-o*	*home-rare-ta*
	John-NOM	Mary-DAT	self-GEN	child-ACC	praise-PASS-PST
	a. "John was affected by his own child praised by Mary."				
	b. "John was affected by Mary's praising her own child."				

In (5), *zibun* "self" is ambiguously interpreted; either *John* or *Mary* may be its antecedent. If it is *John*, the reading in (5a) results; and if it is *Mary*, that in (5b) results. Note that the verb stem *home* "praise" in (5) does not have such lexical semantics that induces adversity on its own as *ker* "kick" in (4) does. In the reading in (5a), the affectedness upon John *may* be taken to be neutral.[2] On the other hand, the reading in (5b) forces the interpretation where John is adversely affected by the event of Mary's praising her own child. Washio (1993: 52) argues that the obligatory adversity on the passive subject in (5b) is due to its exclusion from the event that is depicted by the verb stem *home* "praise." More concretely, John is not excluded from the event of praising in (5a) in the sense that the object of praising is in his possession, i.e., his own child, but John is excluded from the relevant event in (5b) because he has nothing to do with Mary's praising her own child. Hence, Washio (1993) refers to the obligatory adversity exhibited in (5b) as **adversity by exclusion**.[3]

Inasmuch as Washio's (1993) adversity-by-exclusion account is tenable, it is expected that adversity will necessarily be induced on the subject of passives whose verb stems are intransitives. This is indeed borne out as illustrated in (6).

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2 The important point here is that John *need not* be adversely affected as long as the child is taken to be his own. This absence of obligatory adversity is accounted for if (5a) can be derived by direct passive (i.e., possessor passive) without the use of malefactive Higher Applicative (see Section 4 below) as shown in (i).

(i)	[TP John$_1$-ga [VoiP Mary-ni [vP e$_1$ (zibun$_1$-no) kodomo-o √home v]-rare]-ta			
	John-nom	Mary-by	self-gen child-acc	praise-pass-past

See Aoyagi (2010) for relevant discussions, and see also Kubo (1992) for arguments for possessor passive as direct passive in Japanese.

3 In a similar vein, Kuno (1983) accounts for the obligatory adversity having recourse to the notion of "involvement."

(6)	*John-wa*	*Mary-ni*	(*kyoositu-de*)	*nak-are-ta*
	John-TOP	Mary-DAT	classroom-in	cry-PASS-PST
	"John was adversely affected by Mary's crying (in the classroom)."			

In (6), the verb stem is *nak* "cry," an unergative intransitive verb, and John does not have anything to do with Mary's crying. In other words, John is excluded from the event where Mary is the sole participant. Hence, adversity results as expected.

Furthermore, since, according to Washio (1993), passive of the exclusion type is impossible in Korean, the Korean equivalent of (6) should be ungrammatical.

(7)	**John-un*	*Mary-eykey*	(*kyosil-eyse*)	*wul-li-ess-ta*
	John-TOP	Mary-DAT	classroom-in	cry-PASS-PST-DECL
	"(int.) John was adversely affected by Mary's crying (in the classroom)."			

Since (7) is totally ungrammatical under the intended reading, the expectation is also borne out.[4]

2.2 Causative passive

Washio's (1993) adversity-by-exclusion account has such a wide empirical coverage that it accounts for the obligatory adversity reading on the passive subject in cases like (5b) and (6) above. However, this is not the whole story. As widely known, Japanese allows causative passive very productively as shown in (8c) as well as (3a).

(8)	a.	*John-ga*	*kodomo-o*	*home-ta*		(underlying transitive)
		John-NOM	child-ACC	praise-PST		
		"John praised his own child."				
	b.	*Mary-ga*	*John-ni*	*kodomo-o*	*home-sase-ta*	(causative)
		Mary-NOM	John-DAT	child-ACC	praise-CAUS-PST	
		"Mary made John praise his own child."				
	c.	*John-ga*	*Mary-ni*	*kodomo-o*	*home-sase-rare-ta*	(causative–passive)
		John-NOM	Mary-DAT	child-ACC	praise-CAUS-PASS-PST	
		"John was made to praise his own child by Mary."				

(8a) is a simple active transitive sentence, and (8b) is the causative derived from (8a). In either case, *kodomo* "child" can be taken for John's. This possessive relation may be maintained in (8c), which is the passive form of the causative sentence in (8b).[5] Interestingly, although *John* in (8c) should not be excluded from the causative event depicted by (8b) (i.e., the event to be passivized in (8c)) because it has a possessive relation with *kodomo*, adversity reading is forced on *John*. This is simply unexpected by Washio's (1993) adversity-by-exclusion account; hence, it calls for an explanation.

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4 However, (7) allows causative reading. In such a case, the accusative *-lul* is preferred over the dative *-eykey* on *Mary*.
**5** In (8b, c), *kodomo* can also be taken for Mary's. We will turn to this point in Section 4.

3 Theoretical assumptions

3.1 The architecture of verb phrase in Japanese

Since the seminal work by Cinque (1999), it has widely been recognized that the structure under T, as well as that in the C-area (Rizzi 1997), is much richer than conventionally assumed, as shown in (9). Following many authors, e.g., Pylkkänen (2000, 2008), McGinnis (2001), Borer (2005), MacDonald (2008), Travis (2010), and Fukuda (2012), among others, I will assume that the fully articulated structure under T in Japanese may include functional heads above and below Voice in the sense of Kratzer (1996). As I have proposed earlier, High Applicative (H-Appl) may appear above Voice (Aoyagi 2010),[6] and Cause, if present, should be distinct from Voice[7] (Pylkkänen 2008; Aoyagi 2017, 2020). Simultaneously, I will adopt the basic tenets of Distributed Morphology (e.g., Halle and Marantz 1993; Marantz 1997, 2001; Embick and Noyer 2007; among many others), but I will assume with Basilico (2008: 738–9) that an acategorial root ($\sqrt{R}$) should be categorized by a category-determining functional head (i.e., v, n, or a) before an internal argument (IA) is merged. As a result, there is no root phrase ($\sqrt{P}$), and vP corresponds to "VP" in the traditional framework. In the following is shown our "layered verb phrase hypothesis."

(9) the layered verb phrase hypothesis
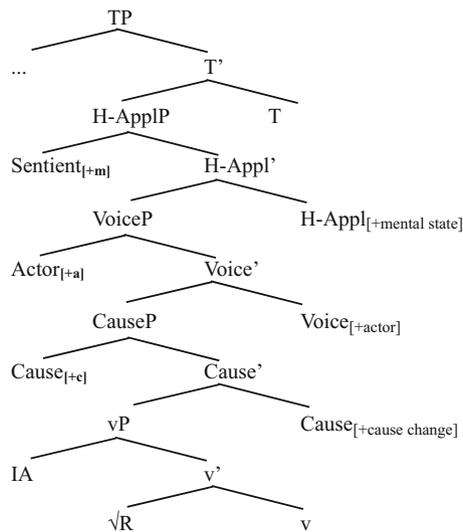
Following the spirit of Reinhart (2002, 2016), I will propose that conventional thematic role labels like "agent" and "theme" should be specified by features. According to Reinhart (2002, 2016), two significant features are [cause change] and [mental state] (hereafter abbreviated as [c] and [m], respectively). The [c] feature indicates the presence or absence of a change-of-state component in the event described. A paradigmatic example is a causative sentence with *-sase* "cause" where the "causer" or the major participant of the causing event brings about a change that leads to the caused event. It is also involved in (simple) change-of-state predicates like *sime* "close(vt)" and *simar* "close(vi)" that exhibit transitive–unaccusative

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6 Referring to it as "Higher" Applicative because it is higher than High Applicative proposed by Pylkkänen (2000, 2008) and McGinnis (2001), Aoyagi (2010) claims that while Japanese has its benefactive and malefactive exponents, i.e., the auxiliary use of (*-te*) *moraw* "receive" and the adversity passive *-rare*, respectively, Korean has neither. However, it will be referred to as High Applicative in the text for the sake of simplicity.
7 Unless Voice–Cause bundling takes place (see Section 3.4 below).

alternation because, in either case, the IA often referred to as "theme" undergoes a change of state and finally arrives at a closed state. On the other hand, the [m] feature indicates whether the mental capacity of a participant is relevant in the event described. For instance, while the "experiencer" of an event needs its mental capacity, the "cause" or "causer" of a causative event does not. Reinhart (2002, 2016) explicates that [+m] entails animacy, but not *vice versa*, and that a [+c] argument can be either animate or inanimate (see (10) and (11) below).

Furthermore, I will add a third feature [a(ctor)] (hereafter often labeled as Actor) which is assigned to the external argument (EA) of a transitive predicate whose semantics does not necessarily entail a change of state. This is exemplified by verbs of physical contact like *tatak* "beat (against)" and *nade* "caress" as shown in (12) below.

In what follows, the EA that is assigned [+m], [+c], and [+a] will be referred to as Sentient, Cause, and Actor, respectively, as indicated in (9) for an expository purpose. I will assume that the strictest version of the theta criterion in the sense of Chomsky (1981) should be abandoned, and an EA may assume more than one theta features.[8]

According to Reinhart (2002, 2016), transitive–unaccusative alternation targets and dethematizes [+c], which means that the EA of a transitive verb that undergoes the alternation can be either animate or inanimate. This is by and large borne out as shown in the transitive and unaccusative pair of sentences in (10).[9]

(10)	a.	*Taro/(?)toppuu-ga*	*doa-o*	*sime-ta*	(transitive)
		Taro/blast-NOM	door-ACC	close-PST	
		"Taro/A blast closed the door."			
	b.	*doa-ga*	(*toppuu-de*)	*simar-ta*	(unaccusative)
		door-NOM	blast-by	close-PST	
		"The door closed (due to a blast)."			

The transitive *sime* "close(vt)" in (10a) alternates with its unaccusative counterpart *simar* "close(vi)" in (10b) because the EA of the transitive sentence in (10a) is [+c], which is neutral with respect to animacy. If it is targeted and dethematized (as a result, it may be demoted to an adjunct), the unaccusative-intransitive sentence in (10b) results.

(11a, b) are on a par with (10a, b), respectively. However, as is often pointed out in the literature (see Inoue 1976: 61ff, for instance), the subject of transitive verbs of a certain class may render non-Actor, non-Cause reading. (11c) is such an example whereby *Taro* can be taken as Sentient (or "experiencer" in the conventional sense) due to [+m] assigned by H-Appl.

(11)	a.	*Taro/(?)kazi-ga*	*ie-o*	*yak-ta*	(transitive)
		Taro/fire-NOM	house-ACC	burn(vt)-PST	
		"Taro/Fire burned down the house."			
	b.	*ie-ga*	(*kazi-de*)	*yake-ta*	(unaccusative)
		house-NOM	fire-by	burn(vi)-PST	

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8 This is due to "Voice–Cause bundling" to be discussed in Section 3.4. For a feature-based version of theta criterion, see Aoyagi (2020).

9 As is often pointed out in the literature, the use of an inanimate [+c] subject like *toppuu* "blast" tends to degrade the acceptability of a sentence as indicated in (10a). However, if an onomatopoeic expression like *batanto* "with a bang" is added as in (i), the acceptability remarkably rises for many speakers.

(i)	*toppuu-ga*	*doa-o*	*batanto*	*sime-ta*
	blast-NOM	door-ACC	with a bang	close-PST
	"A blast closed the door with a bang."			

"A house burned down (by fire)."

	c.	*Taro-ga*	*kazi-de*	*ie-o*	*yak-ta*	(transitive)
		Taro-NOM	fire-by	house-ACC	burn(vt)-PST	

"Taro had his house burned down by fire."

The dominant reading of (11c), where the cause *kazi* "fire" is expressed independently of the subject, is such that Taro was adversely affected by the event that his house was burned down by fire for which he was not responsible at all. In our terms, this reading is due to the presence of H-Appl which assigns Sentient to its Spec, where *Taro* in (11c) is accommodated.

Finally, the need for [+a], in addition to [+c] and [+m], is evidenced by sentences like (12a, b).

(12)	a.	*Taro/ame-ga*	*mado-o*	(*konagonani*)	*tatak-ta*	
		Taro/rain-NOM	window-ACC	into pieces	beat-PST	

"Taro/Rain beat against the window (*into pieces)."

	b.	*Taro/soyokaze-ga*	*kanozyo-no*	*kami-o*	(*bosabosani*)	*nade-ta*
		Taro/breeze-NOM	she-GEN	hair-ACC	shaggy	caress-PST

"Taro/A breeze caressed her hair (*shaggy)."

First of all, verbs of physical contact like *tatak* "beat (against)" in (12a) and *nade* "caress" in (12b) do not require their IA to undergo a change of state. This is evidenced by the fact that secondary resultative predicates do not co-occur with these verbs. Hence, [+c] is not involved. This is also the reason that neither *tatak* nor *nade* may undergo transitive–unaccusative alternation; i.e., neither of them has a morphologically related unaccusative counterpart. Next, the fact that their subjects can be either animate or inanimate indicates that [+m] is not involved, either. Then if the subject of a verb of physical contact is to be interpreted, a third thematic feature should be posited. This is the reason that I propose [+a] (or Actor as a convenient label) which is assigned by Voice as indicated in (9).

3.2 Loci of cause

Among the three EA-introducing functional heads under T, i.e., Cause, Voice, and H-Appl, only Voice is obligatory. This is because the type of voice of a sentence must be determined anyway. Furthermore, H-Appl, if present, is always located above Voice (Aoyagi 2010). On the other hand, Cause has much wider freedom in distribution. According to Pylkkänen (2008: 85), Cause is classified into three types depending on its selectional properties as shown in (13).

(13)	a.	Root-selecting Cause
		√R^Cause
	b.	vP-selecting Cause[10]
		vP^Cause
	c.	Phase-selecting Cause
		[αP EA... α]^Cause (EA: external argument)

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10 Pylkkänen (ibid.) refers to it as "V-selecting," which can be recapitulated as vP-selecting under the theoretical assumption of Distributed Morphology (Marantz 1997, 2001; Basilico 2008).

All three types are attested in Japanese. Root-selecting Cause in (13a) is exemplified by "denominal" verbs like *modo-s* "origin-caus" (return(tr))[11] and *wata-s* "ocean-caus" (pass(tr) (across the ocean)). As for vP-selecting Cause in (13b), the change-of-state verbs (or "lexical" causative verbs) like *kusar-as*(*e*) "spoil(vɪ)-caus" (spoil(vᴛ)) and *sin-as*(*e*) "die-caus" (make/let die), which fill in the gap of morphologically related transitive verbs (Miyagawa 1984; Kuroda 1993), provide evidence for it. Finally, phase-selecting Cause in (13c) is always spelled out as *-sase* as illustrated in (14).

(14)	a.	*John-ga*	[αP	***Mary**-ni*	***zibun**-no*	*hon-o*	*yom*]-***ase**-ta*
		John-NOM		Mary-DAT	self-GEN	book-ACC	read-CAUS-PST
		"John made/let Mary read her own book."					
	b.	*John-ga*	[αP	***Mary**-ni*	***zibun**-no*	*heya-de*	*nak*]-***ase**-ta*
		John-NOM		Mary-DAT	self-GEN	room-in	cry-CAUS-PST
		"John made/let Mary cry in her own room."					

I will assume with Pylkkänen (2008: 85) that an EA-introducing head is defined as a phase head. The verb stems *yom* "read" in (14a) and *nak* "cry" in (14b) are transitive and unergative intransitive, respectively. In either case, *Mary* is interpreted as Actor of the event depicted by the verb and may antecede *zibun* "self,"[12] so that it qualifies as EA. Hence, α is identified as Voice. Thus, *-sase* in (14a, b) instantiates the head of phase-selecting Cause in (13c). After all, Cause may appear either higher or lower than Voice in Japanese.[13]

3.3 Types of voice

As stated above, only Voice is obligatory among the three functional heads under T and above v since every single sentence must somehow indicate its voice, e.g., active, passive, middle/unaccusative, etc. I will assume that Voice is classified into three distinct types by two binary features [±passive] and [±EA][14] as shown in (15).

(15)	Feature classification of Voice	
	+EA	−EA
+passive		(ii) direct passive: assign no role to Spec exponent: *-rare*
−passive	(i) active: assign Actor to Spec exponent: ø	(iii) weakly active, nonagentive: assign no role to Spec exponent: ø

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11 *Nihon Kokugo Daijiten* suggests that the nominal root originated in *moto* "origin," and the intervocalic /t/ has undergone voicing.

12 The higher subject *John*, which is also an EA introduced by Cause, may also antecede it.

13 I will further claim that Cause may even select H-ApplP as a marked option in Section 5 below.

14 Since I used to use [±strong] instead of [±EA] in earlier versions of the present work, one anonymous reviewer raises a very natural question as to whether the [+strong] feature is equal to either the EPP feature or the D feature of Alexiadou et al. (2015). As I see it, the latter two features are virtually the same. However, I had intended the [+strong] feature to be more like the * notation in v* advocated by Chomsky (2001: 9) and the λx feature proposed by Alexiadou et al. (2015: 109). Thus, I will use [±EA] for expository purposes in what follows. I would like to thank the reviewer for letting me clarify the point.

Given that [+passive] Voice is that of direct passive, its EA is dethematized by definition, and so [+EA] and [+passive] are mutually exclusive.[15] First of all, the [+EA] Voice in (15.i) which assigns Actor to its Spec is exemplified by sentences with verbs of physical contact in (12) above. Next, the [+passive] Voice in (15.ii) is found in direct passive sentences with an inanimate subject as shown in (16).

(16)	a.	*doa-ga*	(*John-ni yotte*)	*sime-rare-ta*
		door-NOM	(John-by)	close-PASS-PST
		"The door was closed (by John)."		
	b.	*ie-ga*	(*kazi-de*)	*yak-are-ta*
		house-NOM	(fire-by)	burn-PASS-PST
		"The house was burned (down) (by fire)."		

In (16a), the IA *doa* "door" is assigned the nominative case because it becomes the sole argument due to *John*, which is potentially Cause/Actor, being dethematized and demoted to an adjunct. The same is true of (16b). Finally, the neutral [–EA, –passive] Voice in (15.iii) is attested in unaccusative sentences like (10b) and (11b) as well as "non-agentive" transitive sentences like (11c). The difference between (10b) and (11b), on the one hand, and (11c), on the other, is the presence of H-Appl that assigns Sentient ([+m]) to its Spec in the latter.

3.4 Voice–cause bundling

It is rather evident from our discussion about unaccusative sentences in (10b) and (11b) and "non-agentive" transitive sentences like (11c) that Cause, as well as Voice, may be [–EA], so that it cannot assign Cause to its Spec. In such a case, Cause is demoted to an adjunct or simply implied.

(17)	[±EA] of Cause	
	+EA	–EA
	assign Cause to Spec	assign no role to Spec;
		Cause demoted to an adjunct or simply implied

Pylkkänen (2008: 84) states that while Cause is bundled with Voice in English, Voice–Cause bundling does not take place in Japanese.[16] However, I will claim on the contrary that Voice is always bundled with vP-selecting Cause immediately below it in Japanese.[17,18] In our terms, Voice–Cause bundling takes place in the following four separate cases.

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15 For an argument that *-rare* in the genuinely indirect, and so necessarily adversative, passive like (6) is not the exponent of direct passive but that of malefactive H-Appl, see Aoyagi (2010) and Section 4 below.

16 Pylkkänen (ibid.) does not provide any evidence. Presumably, she has causative-passive discussed in Section 2 in mind. However, I will argue that *-rare* in causative-passive is not the exponent of [+passive] Voice but that of (malefactive) H-Appl in Section 4.

17 Nakajima (2015) argues that when Voice is [–EA] (i.e. without a Spec), the immediately lower Cause will be bundled with it, referring to this process as "Remerge." However, our bundling is different from his "remerge" in that it always takes place irrespective of the [EA] feature of Voice (or Cause, for that matter).

18 One might opt for abandoning severing Cause from Voice from the beginning. However, recall that [+a] Voice is required independently of Cause (see (12a, b) above). Although I have to leave for future research the question as to why bundling is obligatory in Japanese, I will tentatively assume that it is due to structural and/or derivational economy. Thanks go to another reviewer for raising this question.

(18) a. [+EA] Voice and [+EA] Cause (for change-of-state transitives (10a), (11a))

```
        VoiceP                    =>            Voice/CauseP
       /      \                                /          \
EA[Actor]    Voice'              EA[Cause-Actor]       Voice/Cause'
            /      \                                  /          \
        CauseP    Voice[+EA]                        vP      Voice/Cause[+EA]
       /      \
 EA[Cause]   Cause'
            /      \
          vP      Cause[+EA]
```
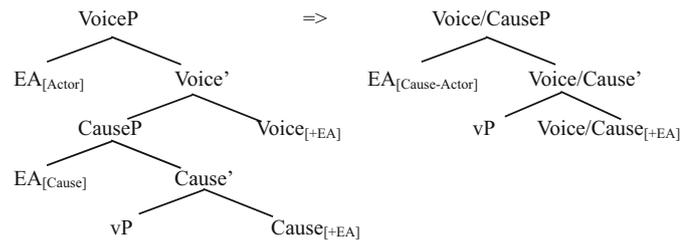
b. [–EA, (–passive)] Voice and [–EA] Cause (for unaccusatives (10b), (11b))

```
          VoiceP                =>            Voice/CauseP
         /      \                            /          \
    CauseP    Voice[–EA]         (adjunct[Cause])     Voice/Cause'
   /      \                                          /          \
(adjunct[Cause])  Cause'                            vP     Voice/Cause[–EA]
                /      \
              vP      Cause[–EA]
```
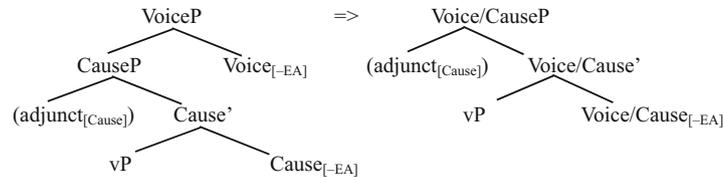
c. [+EA] Voice and [–EA] Cause (for Actor subjects in (10a), (11a))

```
        VoiceP                    =>            Voice/CauseP
       /      \                                /          \
EA[Actor]    Voice'              EA[Actor]         Voice/Cause'
            /      \                              /          \
        CauseP    Voice[+EA]          (adjunct[Cause])    Voice/Cause'
       /      \                                          /          \
(adjunct[Cause])  Cause'                                vP      Voice/Cause
                /      \
              vP      Cause[–EA]
```
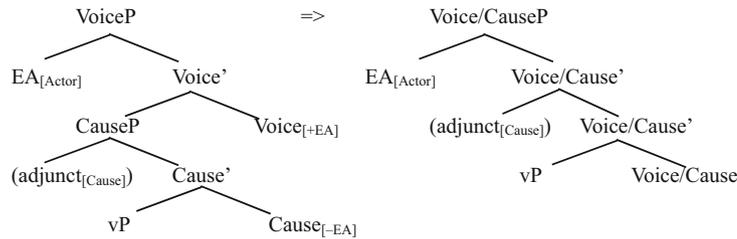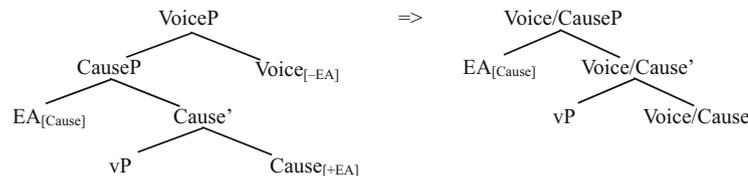
d. [–EA] Voice and [+EA] Cause (for inanimate Cause subjects in (10a), (11a))

```
          VoiceP                =>            Voice/CauseP
         /      \                            /          \
    CauseP    Voice[–EA]              EA[Cause]      Voice/Cause'
   /      \                                         /          \
EA[Cause]  Cause'                                  vP      Voice/Cause
          /      \
        vP      Cause[+EA]
```

The first two cases are straightforward. (18a) is what happens in sentences with change-of-state transitive verbs that undergo transitive–unaccusative alternation as in (10a) and (11a), and (18b) is called for in the corresponding unaccusative sentences like (10b) and (11b). On the other hand, the latter two cases are rather obscure. However, they are existent, or it seems that their existence is innocuous. (18c) arguably instantiates a change-of-state transitive event in which the EA (Actor) acts on something else than the IA ("theme"). This is illustrated by the following example, which is modified on (10a).

(19)	*John-wa*	*botan-o*	*osi-te*	*doa-o*	*sime-ta*
	John-TOP	button-ACC	press-by	door-ACC	close-PST
	"John made/let the door close by pressing the button."				

Now the relevant reading of (19) is that in which John simply pressed a button without acting on the door directly, and the first-order cause of the door-closing event is a mechanical system that is instigated by the button-pressing event. In this construal, John is only the Actor of the latter event, not necessarily be taken for the Cause of the former event. Finally, (18d) can be argued to instantiate a change-of-state event where the EA is an inanimate Cause as in (20) (modified on (11a)).

(20)	*Meireki-no*	*taika-ga*	*Edo-no*	*ieie-o*	*yak-ta*
	Meireki-GEN	big fire-NOM	Edo-GEN	houses	burn-PST
	"The big fire of Meireki burned down many houses in Edo."				

In (20), *Meireki-no taika* "the big fire of Meireki (period)" can be taken for Cause.[19]

4 The source of adversity in causative–passives

Now let us return to the obligatory adversity observed in causative–passive noted in Section 2, which is unexpected in Washio's (1993) adversity-by-exclusion account. In (21) are some causative–passive examples ((21a) reproduced from (5) above).

(21)	a.	*John₁-ga*	[*Mary-ni*	(*zibun₁-no*)	*kodomo-o*	*home-sase*]-*rare-ta*
		John-NOM	Mary-DAT	self-GEN	child-ACC	praise-CAUS-PASS-PST
		"John was made to praise his own child by Mary."				
	b.	*John₁-ga*	[*Mary-ni*	(*zibun₁-no*)	*buka-o*	*suisens-ase*]-*rare-ta*
		John-NOM	Mary-DAT	self-GEN	man-ACC	recommend-CAUS-PASS-PST
		"John was made to recommend his own man by Mary."				

In either case, the passive subject *John* is not excluded from the event that is embedded under *-rare* by being able to be the possessor of the object of the verb stem, but adversity is obligatorily induced upon *John*, which needs a principled explanation.

    To begin with, let us take a look at the causative sentences embedded under *-rare* in (21a, b), i.e., (22a, b), respectively.

(22)	a.	*Mary-ga*	[αP *John-ni*	**wazato**	**zibun-no**	*kodomo-o*	*home*]-*sase-ta*
		Mary-NOM	John-DAT	on purpose	self-GEN	child-ACC	praise-CAUS-PST
		"Mary made John praise his own child on purpose."					
	b.	*Mary-ga*	[αP *John-ni*	**wazato**	**zibun-no**	*buka-o*	*suisens*]-*ase-ta*
		Mary-NOM	John-DAT	on purpose	self-GEN	man-ACC	recommend-CAUS-PST
		"Mary made John recommend his own man on purpose."					

    In (22a, b), αP, a transitive clause, is embedded under *-sase*. The logical subject of each transitive clause *John*, marked by the DAT, may be modified by the so-called "agent-oriented" adverb *wazato* "on purpose" and may antecede *zibun* "self."[20] This indicates that αP is VoiceP whose head, specified as [+EA], assigns Actor to EA in its Spec. This in return suggests that Cause, realized as *-sase*, is merged with VoiceP, i.e., an instance of phase-selecting Cause in (13c) above.

**19** As we have argued toward the end of Section 3.1 above, Actor can be either animate or inanimate. Given this, the big fire of Meireki can be Cause-Actor as well as Cause. In other words, (20) can be instantiated by (18a) as well as (18d). However, the ambiguity is innocuous to our text argument.
20 The causer *Mary* may also be modified by *wazato* and antecede *zibun*, but this reading is immaterial to the text discussion.

Interestingly, this agentive subject property is maintained if (20a, b) are "passivized" as shown in (23a, b), respectively.

---

(23) a. *John₁-ga*   *Mary-ni*   [VoiceP *e₁* *wazato₁*   *zibun-no*   *kodomo-o*   *home*]-*sase*
　　　 John-NOM   Mary-DAT   on purpose self-GEN   child-ACC   praise-caus
　　　 -rare-ta
　　　 -PASS-PST
　　　 "John was made to praise his own child on purpose by Mary."
　　 b. *John₁-ga*   *Mary-ni*   [VoiceP *e₁* *wazato₁*   *zibun-no*   *buka-o*
　　　 John-NOM   Mary-DAT   on purpose self'-GEN   man-ACC
　　　 suisens]-*ase-rare-ta*
　　　 recommend-CAUS-PASS-PST
　　　 "John was made to recommend his own man on purpose by Mary."

In (23a, b), the highest subject *John* is related to the empty subject position in VoiceP by either movement or control.[21] As a result, John maintains the agentive subject property found in (22a, b). This indicates that the instance of *-rare* in causative–passive is in fact a realization of H-Appl but not the exponent of direct passive (i.e. [+passive]) Voice. When spelled out as *-rare*, H-Appl induces adversity on the part of its subject. (21a), for instance, can be represented as follows.

---

(24)
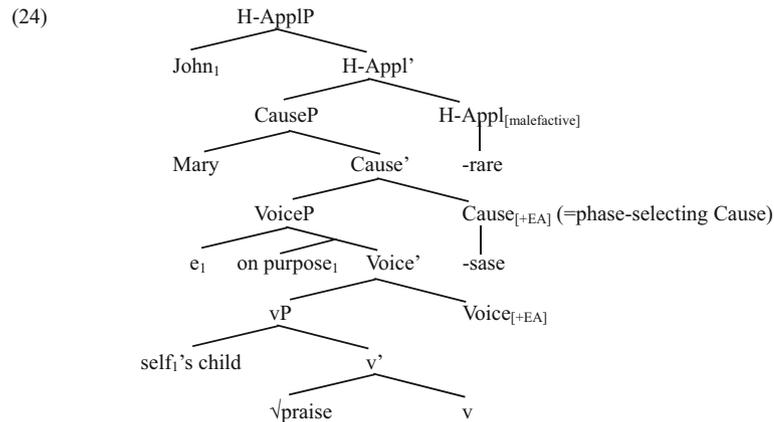
To conclude this section, I claim that the source of obligatory adversity on the subject of causative–passive, irrespective of its inclusion or exclusion in the sense of Washio (1993), is the use of malefactive/adversative H-Appl as shown in (24).

---

21 The choice between the two is irrelevant to the text discussion.

5 Some consequences

5.1 Passive–causatives??

As we have seen above, causative–passives are highly productive in Japanese. On the other hand, passive–causatives are highly marked if possible at all. The passive–causative in (25b) and its underlying passive in (25a) are from Saito (1982: 92).

---

(25) a. *John₁-ga*   (*damatte*)   *Tom-ni*   *e₁*   *sikar-are-ta*
      John-NOM   silently   Tom-DAT   scold-PASS-PST
      "John was scolded by Tom (without saying anything)."
   b. *%Mary-ga* *John₁-o/ni* (*damatte*) *Tom-ni* *e₁*   *sikar-are-sase-ta*
      Mary-NOM John-ACC/DAT silently Tom-DAT   scold-PASS-CAUS-PST
      "Mary made/let John be scolded by Tom (without saying anything)."

Factual evaluation of examples like (25b) varies among Japanese linguists. For instance, while Hoshi (1999: 204) cites (25b) as an acceptable example, Nakamura and Hashimoto (1994) flatly reject it. Ishizuka (2012: 30, footnote 5) states that while the causative–passive *sase-rare* is canonical, the inverse passive–causative *rare-sase* is definitely marked by drawing the following pair of examples.[22] (26a, b) are from Ishizuka (2012: 30), and the judgments are hers.

---

(26) a. *Ken-ga*   (*Naomi-ni*) *John-o*   *tazune-sase-rare-ta*
      Ken-NOM   Naomi-DAT John-ACC   visit-CAUS-PASS-PST
      "Ken was caused (by Naomi) to visit John."
   b. **? Ken-ga* *Naomi-o*   (*John-ni*) *tazune-rare-sase-ta*
      Ken-NOM   Naomi-ACC John-DAT   visit-PASS-CAUS-PST
      "Ken caused Naomi to be visited (by John)."

As a Japanese speaker, I believe that examples like (25b) and (26b) are highly awkward at best. However, if the passive subject is inanimate, the resultant passive–causative becomes even worse as exemplified below.

---

(27) a. *sono zassi-ga*   (*hiroku*)   *wakamono-ni* *yom-are-ta*
      that magazine-NOM widely   youth-DAT   read-PASS-PST
      "That magazine was (widely) read by the youth."
   b. **John-ga*   *sono zassi-o*   (*hiroku*) *wakamono-ni* *yom-are-sase-ta*
      John-NOM   that magazine-ACC widely youth-DAT   read-PASS-CAUS-PST
      "(int.) John caused that magazine to be (widely) read by the youth."
(28) a. *mado-garasu-ga* *huryootati-ni*   *war-are-ta*
      window pane-NOM mobsters-DAT   break-PASS-PST
      "Window panes were broken by mobsters."
   b. **keikan-ga*   *mado garasu-o* *huryootati-ni*   *war-are-sase-ta*
      policeman-NOM window pane-ACC mobsters-DAT   break-PASS-CAUS-PST
      "(int.) The policemen let window panes broken by mobsters."

---

22 In the same footnote, Ishizuka reports that *nagur-are-sase* "punch-PASS-CAUS (cause to be punched)" sounds better to her.

(27a) and (28a) are instances of direct passives with a [−animate] subject. If such a direct passive is embedded under -*sase* as in (27b) and (28b), the result 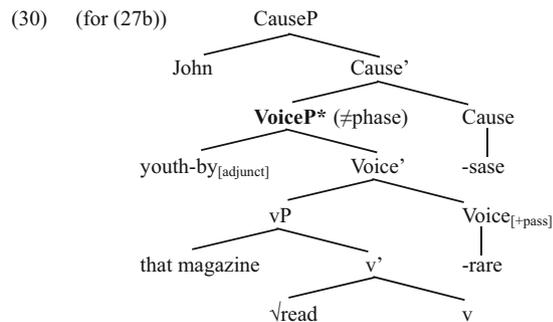is devastatingly worse than examples like (25b) and (26b). This contrast is rather sharp among the Japanese speakers who I have consulted. Even those who reject examples like (25b) and (26b) report that they are relatively better than (27b) or (28b). This contrast, if real, calls for an account.

In our terms, since the passive subject in (25a) and that of the underlying passive of (26b), i.e., *Naomi-ga John-ni tazune-rare-ta* "Naomi was visited by John," are [+animate]; hence, they may be accommodated in Spec of H-Appl. If, as a marked option, Cause is allowed to be merged with H-ApplP, the representation of (25b) will look like (29).

(29)   (for 25b)

```
                        CauseP
                   ┌───────┴────────┐
                 Mary            Cause'
                          ┌─────────┴──────────┐
                      H-ApplP        Cause (=phase-selecting Cause)
                   ┌─────┴─────┐              │
                John₁       H-Appl'         -sase
                        ┌─────┴──────┐
                    VoiceP      H-Appl[malefactive, +EA]
                 ┌─────┴─────┐        │
              Tom-by      Voice'    -rare
                      ┌─────┴─────┐
                     vP       Voice[+pass, −EA]
                 ┌────┴────┐
                e₁       v'
                     ┌────┴────┐
                  √scold       v
```
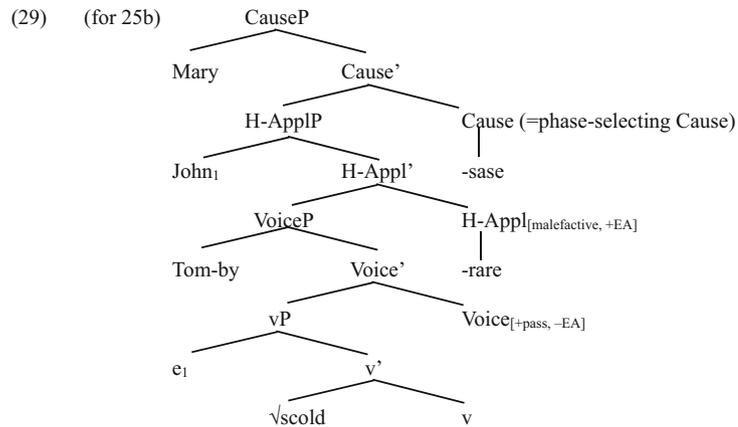
In (29), Cause is merged with H-ApplP. I claim that this is marginally possible because H-Appl assigns Sentient ([+m]) to EA (*John*) in its Spec; thus, Cause in (29) counts as an instance of phase-selecting Cause (see (13c) above). This is simply impossible for (27b) or (28b). Since the subject of the direct passive clause embedded under -*sase* is an inanimate entity, it cannot be accommodated in Spec of H-Appl. Due to the lack of H-ApplP, Cause should be merged with [+passive] VoiceP. However, it is banned because the latter does not constitute a phase due to dethematization of its Spec as shown in (30).[23]

(30)   (for (27b))

```
                        CauseP
                   ┌───────┴────────┐
                 John            Cause'
                          ┌─────────┴──────────┐
                      VoiceP* (≠phase)        Cause
                   ┌──────┴──────┐              │
          youth-by[adjunct]    Voice'        -sase
                        ┌─────┴──────┐
                     vP        Voice[+pass]
                 ┌─────┴─────┐        │
          that magazine     v'      -rare
                      ┌─────┴─────┐
                   √read         v
```

---

23 A question naturally arises as to why [+passive] Voice may not be spelled out as -*rare* as well as Higher Applicative. This is probably due to haplology, i.e., **-rare-rare* reduced to -*rare*. See Kuroda (1993: 10) for cases of double causatives with a single occurrence of -*sase* for the same reason.

In (30), VoiceP* is offensive because, its head being specified as [+passive], it does not count as a phase.[24] Thus, Cause in (30) cannot be an instance of phase-selecting Cause in (13c). Nor does it qualify as Root-selecting Cause in (13a) or vP-selecting Cause in (13b), either.

5.2 Circumfixing double causatives

Our account of the marginal status of passive–causatives like (25b) is further supported by examples like (31b) and (32b).

---

(31) a. *Mary-ga   sensei-ni   (rooka-ni)   tat-as-are-ta*
       Mary-NOM   teacher-by   hall-in   stand-CAUS-PASS-PST
       "Mary was made to stand (in the hall) by her teacher."

   b. *??John-ga   Mary-o   sensei-ni   (rooka-ni)   tat-as-are-sase-ta*
       John-NOM   Mary-ACC   teacher-by   hall-in   stand-CAUS-PASS-CAUS-PST
       "John made Mary caused to stand (in the hall) by the teacher."

(32) a. *Mary-ga   keikan-ni   (zimen-ni)   ne-sas-are-ta*
       Mary-NOM   policeman-by ground-on   lie.down-CAUS-PASS-PST
       "Mary was made to lie down (on the ground) by the policeman."

   b. *??John-ga   Mary-o   (damatte)   keikan-ni   (zimen-ni)   ne-sas-are-sase-ta*
       John-NOM   Mary-ACC   silently   teacher-by   ground-on   cry-CAUS-PASS-CAUS-PST
       "John made Mary caused to lie down (on the ground) by the policeman (without saying anything)."

(31a) and (32a) are examples of the highly productive causative–passive, and they are both perfectly grammatical, as expected. In (31b) and (32b), a causative–passive is further embedded under *-sase*. As a result, the passive *-(r)are* is circumfixed by two occurrences of Cause. It is true that both (31b) and (32b) are less than perfect at best. However, many Japanese speakers find that they are no worse than passive causatives like (25b).

As noted by Kuroda (1993), while some instances of the suffix *-(s)as* are phonologically reduced forms of the full-fledged Cause *-(s)ase* (e.g., *hatarak-as < hatarak-ase* "work-CAUS (cause to work))," others are part of the so-called "lexical" causatives (e.g., *ugok-as* "move(VT)" < *ugok* "move(VI)"). In our terms, while the former is an instance of phase-selecting Cause, the latter is that of vP-selecting Cause (see (13) above).[25] According to Kuroda (1993: 8–10), one touch stone that distinguishes between them is the double causative test; if double causative is possible, it is part of a "lexical" causative; otherwise, it is a phonologically reduced form of the productive *-(s)ase* (i.e., the spell out of phase-selecting Cause), as exhibited in the contrast between (33a) and (33b) drawn from Kuroda (1993: 9) with slight modifications.

---

(33) a. *rentaityoo-ga   syootaityoo-ni   heitaitati-o*
        regiment commander-NOM   platoon commander-DAT   soldiers-ACC
        *ugok-**as**-ase-ta*
        move(VI)-CAUS-CAUS-PST
        "The regiment commander made a platoon commander move soldiers."

---

24 Recall that an EA-introducing head is defined as a phase head (see Section 3.2).
25 Aoyagi (2017) claims that *-as* as in *ugok-as* "move(VT)" is a morphophonemic realization of the radicalized form of the v /as/, which can be taken as root-selecting Cause (13a) in the sense of Pylkkänen (2008).

b. *rentaityoo-ga   syootaityoo-ni   heitaitati-o
    regiment commander-NOM   platoon commander-DAT   soldiers-ACC
    hatarak-**as**-ase-ta
    work-CAUS-CAUS-PST
    "(int.) The regiment commander made a platoon commander make soldiers work."

While (33a) passes the double causative test, (33b) does not. This means that -as in the former is part of a "lexical" causative (i.e., root-selecting Cause in our terms), but that in the latter is a reduced form of the phase-selecting -(s)ase.

Let us return to tat-as "stand(VI)-CAUS" in (31) and ne-sas "lie.down-caus" in (32). First of all, each has a morphologically related transitive form, tat-e "stand(VT)" and ne-kas "lay.down," respectively, distinct from tat-as in (31) and ne-sas in (32). Since each of them consists of an intranstive verb stem and the causative suffix -(s)as, they come so close to transitives semantically. However, they are not simple transitives (or "lexical" causatives). This is evidenced by the fact that neither of them passes Kuroda's double causative test as shown in (34).

(34) a. ?*kootyoo-ga   sensei-ni   Mary-o   tat-as-ase-ta[26]
          principal-NOM   teacher-DAT   Mary-ACC stand-CAUS-CAUS-PST
          "(int.) The principal made a teacher make Mary stand."
      b. *keibu-ga   keibuho-ni   Mary-o   (zimen-ni)   ne-sas-ase-ta
          captain-NOM   lieutenant-DAT Mary-ACC   ground-on   lie.down-CAUS-CAUS-PST
          "(int.) The captain made/let the lieutenant make Mary lie down (on the ground)."

Neither *tat-as-ase "stand(VI)-CAUS-CAUS" in (34a) nor *ne-sas-ase "lie.down-CAUS-CAUS" in (34b) is permissible.

Furthermore, the instransitive verb stems tat "stand" in (31) and ne "lie.down" in (32) are unergatives when their subjects are animate as evidenced by the following examples.
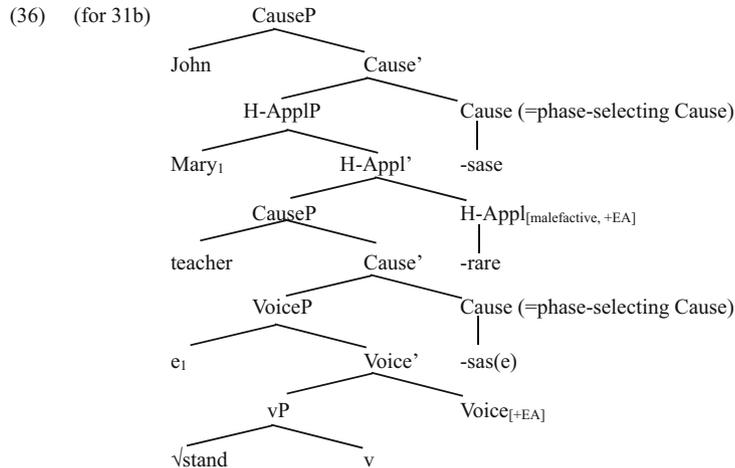
(35) a. Mary-ga   **wazato**   **zibun**-no   kuruma-no   mae-ni   tat-ta
          Mary-NOM   on purpose   self-GEN   car-ACC   front-in   stand-PST
          "Mary stood in front of her own car on purpose."
      b. Mary-ga   **wazato**   **zibun**-no   heya-no   yuka-de   ne-ta
          Mary-NOM   on purpose   self-GEN   room-GEN   floor-on   stand-PST
          "Mary lay down on the floor of her own room on purpose."

In either case, Mary may be modified by the so-called "agent-oriented" adverb wazato "on purpose" and may be the antecedent of zibun "self." This is a very strong indication that Mary is located in Spec of [+EA] Voice which assigns Actor to its Spec (with the possibility that it is further raised to Spec of H-Appl for Sentient).

Given these qualifications, the structure of (31b), for instance, can be represented as follows.

---

26 If haplology applies to (34a, b), the results sound much better to the ear of Japanese speakers.

(i)   a. ?kootyoo-ga sensei-ni Mary-o tat-ase-ta
          principal-NOM teacher-DAT Mary-ACC stand-CAUS-PST
          "The principal made/let a teacher make Mary stand."
      b. ?keibu-ga keibuho-ni Mary-o (zimen-ni) ne-sase-ta
          captain-NOM lieutenant-DAT Mary-ACC ground-on lie.down-CAUS-PST
          "The captain made/let a lieutenant make Mary lie down (on the ground)."

(36) (for 31b)

```
                              CauseP
                    ┌───────────┴───────────┐
                  John                   Cause'
                              ┌─────────────┴─────────────┐
                          H-ApplP              Cause (=phase-selecting Cause)
                    ┌─────────┴─────────┐                 -sase
                 Mary₁             H-Appl'
                           ┌──────────┴──────────┐
                        CauseP           H-Appl[malefactive, +EA]
                   ┌───────┴───────┐              -rare
                teacher         Cause'
                          ┌───────────┴───────────┐
                       VoiceP          Cause (=phase-selecting Cause)
                   ┌──────┴──────┐                 -sas(e)
                  e₁          Voice'
                         ┌──────┴──────┐
                        vP          Voice[+EA]
                   ┌─────┴─────┐
                 √stand        v
```

In (36), the lower Cause is the commonest type that is merged with VoiceP whose head assigns Actor to its Spec, but the use of the higher Cause, which is located higher than H-Appl, is a marked option as we have claimed in Section 5.1 (see (29)). Thus, the less-than-perfect status of the passive *-rare* sandwiched by two causative morphemes in (31b) and (32b) is on a par with that of passive–causatives like (25b).

6 Extensions to Korean

In this section, we will make an attempt to extend our analysis of causatives and passives in Japanese to their Korean counterparts. More concretely, we will claim that the oft-mentioned ambiguity between morphological causatives and passives in Korean results from bundling as proposed in Section 3.4 above.

6.1 The ambiguity of /Hi/ in Korean

It is widely recognized that the four {i, hi, li, ki} out of the seven causative morphemes {i, hi, li, ki, wu, kwu, chwu} can also be used as passive morphemes (e.g., Lee 1973; Yang 1979; Washio 1993; Kim 1994, 1998; Yeon 2002, 2003; Oshima 2006; Aoyagi 2007, among many others) as illustrated in the following examples.[27,28]

(37) a. *John-i*   *Mary-eykey*   *heli-lul*   *palp-hi-ess-ta*
          John-NOM   Mary-DAT   back-ACC   step.on-HI-PST-DECL
          (i) "John made Mary step on his/someone else's back."   (causative)
          (ii) "John had his back stepped on by Mary."   (passive)

---

27 In what follows, we will let /Hi/ represent the four allomorphs of the causative morpheme that can also be used as passive.
28 Korean morphological causatives and passives are less productive than the analytical causatives and passives with *-key ha* and *-e ci*, respectively, as well as Japanese counterparts. As for the frequency of the ambiguity in question, authors' opinions vary. For instance, while Yang (1979: 193) notes that, among the 100 verbs suffixed with one of the 7 morphemes that he has taken a look at, 69 are at least potentially ambiguous, Yeon (2002: 200) states that truly ambiguous cases are much more limited.

	b.	*John-i*	*Mary-eykey*	*meli-lul*	*kkakk-i-ess-ta*	
		John-NOM	Mary-DAT	hair-ACC	cut-HI-PST-DECL	

           (i) "John made Mary cut his/her/someone else's hair."   (causative)

           (ii) "John had his hair but by Mary."   (passive)

(37a, b) can be interpreted as either causative or passive. However, as indicated in the English glosses, the interpretive freedom of the (retained) accusative object in passives is more narrowly restricted than in causatives. This is because, unlike in Japanese, the subject of morphological passive in Korean may not be excluded from the event depicted by the verb stem. Hence, passives can be formed on intransitive verbs in Japanese, but not in Korean, as shown in (38a, b) reproduced from (6) and (7), respectively.

(38)	a.	*John-wa*	*Mary-ni*	(*kyoositu-de*)	*nak-are-ta*	(=(6) Japanese)
		John-TOP	Mary-DAT	classroom-in	cry-PASS-PST	

           "John was adversely affected by Mary's crying (in the classroom)."

	b.	**John-un*	*Mary-eykey*	(*kyosil-eyse*)	*wul-li-ess-ta*	(=(7) Korean)
		John-TOP	Mary-DAT	classroom-in	cry-HI-PST-DECL	

Since Mary is the sole participant of the crying event where John is not involved, Japanese allows the passive in (38a), but its Korean counterpart in (38b) is impossible. In addition, (37b) should be contrasted with the following Japanese counterpart.

(39)	*John-ga*	*Mary-ni*	*kami-o*	*kir-are-ta*	
	John-NOM	Mary-DAT	hair-ACC	cut-PASS-PST	

           (i) "John had his hair cut by Mary."   (inclusive reading)

           (ii) "John was adversely affected by Mary's cutting her hair."   (exclusive reading)

While (39) in Japanese allows the accusative object (=hair) to be either John's as in (39.i) or Mary's (or even someone else's) as in (39.ii), (37b) in Korean does not allow the latter interpretation under its passive reading. Aoyagi (2010) argues that H-Appl is located above Voice in Japanese, and it is available for the purpose of accommodating either benefactive or malefactive (or adversative) Sentient argument (assigned [+m]); however, H-Appl above Voice is not available in Korean.[29] Thus, while *-rare* as the exponent of malefactive H-Appl makes the indirect passive in (36a) possible, the Korean /Hi/ may not occupy the same location.

    However, the question still remains as to why /Hi/ can be ambiguous between causative and passive as shown in (37a, b) above. In what follows, we will argue that /Hi/ in Korean is univocally an exponent of Cause, and its passive sense comes as the result of Voice–Cause bundling.

6.2 The loci of /Hi/ in Korean

As we have mentioned in Section 3.2, Pylkkänen (2008: 85) proposes that Cause may appear at three different locations as indicated in (40) (reproduced from (13)).

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29 Aoyagi (2010) also notes that while *moraw* "receive" in Japanese has its auxiliary benefactive use, its Korean counterpart *pat* "receive" lacks it (see also Shibatani 1994).

(40) a. Root-selecting Cause
          √R^Cause
      b. vP-selecting Cause
          vP^Cause
      c. Phase-selecting Cause
          [αP EA... α]^Cause   (EA: external argument)

As we have noted, all three instances of Cause are attested in Japanese. By null hypothesis, it is not surprising if all three types of Cause are also available in Korean. Indeed this seems to be the case.

First of all, root-selecting Cause in (40a) is instantiated by "de-adjectival" verbs like *nelp-hi* "widen(vt)" < *nelp* "wide(adj)" and *noph-i* "heighten(vt)" < *noph* "high(adj)," where /Hi/ can simultaneously be taken as the exponent of the category-determining v (Aoyagi 2017).

Next, vP-selecting Cause is exemplified by sentences with change-of-state verbs like the following.

(41) a. *John/kangphung-i*   *Mary-uy*   *moca-lul*   (*hanul noph-i*)   *nal-li-ess-ta*
          John/strong wind-NOM   Mary-GEN   hat-ACC   high in the sky   fly-CAUS-PST-DECL
          "John/Strong wind blew Mary's hat off (high in the sky)."
      b. *John/palam-i*   *mun-ul*   (*kwut-key*) *tat-ass-ta*
          John/draft-NOM   door-ACC   tight   close-PST-DECL
          "John/A draft closed the door (tight)."

The verb stem in (41a) is *nal* "fly(vi)," an intransitive, and the exponent of Cause is /Hi/. On the other hand, the verb stem in (41b) is the transitive *tat* "close(vt);" hence, the exponent of Cause is ø in the same way as its Japanese counterpart *sime* "close(vt)" (see (10a) in Section 3.1 above). Either of the verbs may co-occur with a secondary resultative predicate, which indicates that they are indeed change-of-state verbs. Furthermore, the presence of Cause which assigns [+c] to its Spec is evidenced by the fact that the subject can be either animate or inanimate.

Finally, phase-selecting Cause is instantiated by causatives formed on transitive verbs like (42b) as well as (37a, b) under their causative interpretations.
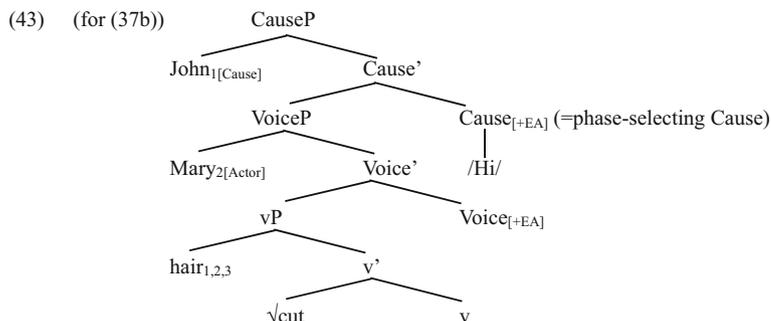
(42) a. *Mary-ka*   *chayk-ul*   *ilk-ess-ta*
          Mary-NOM   book-ACC   read-PST-DECL
          "Mary read a book."
      b. *John-i*   *Mary-eykey*   *chayk-ul*   *ilk-hi-ess-ta*
          John-NOM   Mary-DAT   book-ACC   read-HI-PST-DECL
          "John made Mary read a book."

In (42b), the transitive clause with Actor EA (=Mary) in (42a) is embedded under /Hi/ as a causative morpheme. Thus, all three types of Cause are found in Korean as well as in Japanese.

6.3 Passive as the result of Voice–Cause bundling

Let us return to the ambiguity of /Hi/ between causative and passive as noted in Section 6.1. To begin with, the causative sense of (37b), for instance, can result from the following construction.[30]
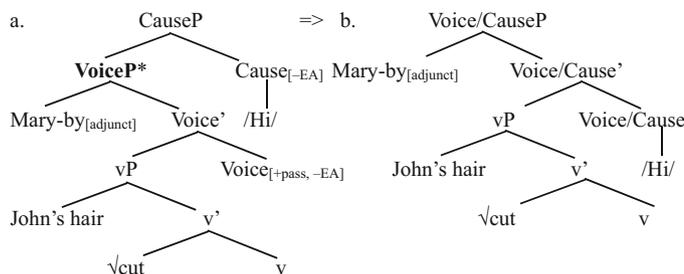
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30 The possible existence of vP-selecting Cause is subsumed in (41).

(43)   (for (37b))   CauseP

John$_{1[Cause]}$ Cause'

VoiceP   Cause$_{[+EA]}$ (=phase-selecting Cause)

Mary$_{2[Actor]}$ Voice'   /Hi/

vP   Voice$_{[+EA]}$

hair$_{1,2,3}$ v'

√cut   v

The verb stem *kkakk* "cut" in (37b) is transitive, and [+EA] Voice assigns Actor to *Mary* in its Spec. Since VoiceP counts as a phase, phase-selecting Cause in (40c) can be employed. If it is [+EA], it assigns Cause to *John* in its Spec. Inasmuch as (37b) is represented as a causative sentence as in (43), the accusative marked IA hair need not be John's, and it can be Mary's or even somebody else's.

Now let us explicate how the passive sense of (37a, b) obtains. Suppose that Cause can be [−EA] in Korean as well as in Japanese (see (17) in Section 3.4 above) and that Voice can also be [+passive], hence, [−EA]. Then Voice–Cause bundling *should* take place as indicated below.

(44) [−EA] Cause and [+passive, −EA] Voice

a.   CauseP   => b.   Voice/CauseP

VoiceP*   Cause$_{[−EA]}$ Mary-by$_{[adjunct]}$ Voice/Cause'

Mary-by$_{[adjunct]}$ Voice'   /Hi/   vP   Voice/Cause

vP   Voice$_{[+pass, −EA]}$ John's hair   v'   /Hi/

John's hair   v'   √cut   v

√cut   v

(44a) is illicit for the same reason as (30) in Section 5.1 is. Since VoiceP without an EA does not constitute a phase, the selectional property of Cause is not satisfied in (44a) (see (40)). However, if bundling applies, Cause will be able to select for vP as indicated in (44b) (see (40b)).[31] In our terms, the passive sense of (37a, b) is not solely due to /Hi/, but it results from the combination of [+passive] Voice and /HI/ as Cause without an EA (="causer"). Furthermore, if the possessor of IA *John* in (44b) can be moved to Spec of T (e.g., for an EPP reason), the possessor passive in (45) will be derived.[32]

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31 One might raise a question, quite naturally, as to why bundling does not save (30) in Japanese. There are two approaches in sight. One possibility is that bundling only applies to Voice and immediately lower Cause, not vice versa, as entertained in Section 3.4 above. Yet another possibility is that, if bundling should apply to two adjacent functional heads, the exponent of either one is ø. I will leave the choice between the two as an open question.

32 Presumably, by way of possessor ascension as claimed by Yeon (2002, 2003). In addition, see Kubo (1992) for an argument that possessor passive is an instance of direct passive.

(45)
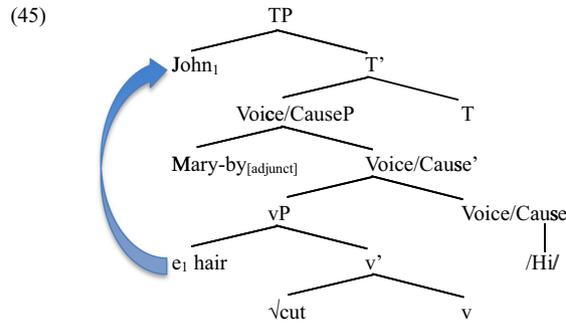
Movement of the possessor *John* restricts the interpretation of the retained object hair to his own.[33,34] Thus, our assumption that /Hi/ is univocally causative, and bundling takes place when both Cause and Voice are [−EA] successfully accounts for the apparent ambiguity of /Hi/ between causative and passive. In our terms, the passive sense in examples like (37a, b) is derived from causative. This derivational direction is supported widely in the literature (e.g., Keenan and Dryer 1985; Haspelmath 1990; Washio 1993; Yeon 2002, 2003, among others).

6.4 An implication to /Hi/ vs /Hu/

As noted in Section 6.1, only the first four, represented as /Hi/, among the seven causative morphemes {i, hi, li, ki, wu, kwu, chwu} can also be used as passives; in other words, the latter three, represented as /Hu/, are exclusively causatives. Indeed, this contrast between /Hi/ and /Hu/ follows from their selectional properties.

As shown in (46), /Hi/ can be attached to dyadic stems as well as monadic stems (i.e., adjectives and intransitives). On the other hand, /Hu/ can be attached only to monadic stems as shown in (47).[35]

(46)   stems selected by /Hi/
     a.   adjective stem: *noph-i* "heighten(vt)" (<*noph* "high(adj)"), *nelp-hi* "widen(vt)" (<*nelp* "wide (adj)"), *cop-hi* "narrow(vt)" (<*cop* "narrow(adj)"), etc.
     b.   intransitive stem: *sal-li* "let live" (<*sal* "live(vi)"), *kkulh-i* "boil(vt)" (<*kkulh* "boil(vi)"), *ik-hi* "ripen(vt)" (<*ik* "ripen(vi)"), etc.
     c.   transitive stem: *mul-li* "make bite" (<*mul* "bite"), *palp-hi* "make step on" (<*palp* "step on"), *ilk-hi* "make read" (<*ilk* "read"), etc.

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33 Alternatively, if the whole object is moved, the direct passive in (i) results.

(i)   *John-uy*   *meli₂-ka*   *Mary-eykey*   *e₂*   *kkakk-i-ess-ta*
     John-GEN   hair-NOM   Mary-DAT   cut-HI-PST-DECL
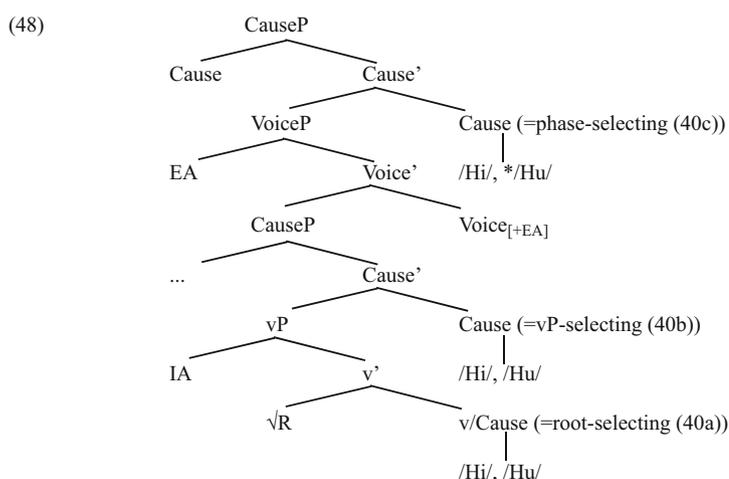   "John's hair was cut by Mary."

34 The adjunct status of *Mary-eykey* "Mary-dat" is evidenced by the impossibility of anteceding *caki* "self" under the passive reading of (37b).

(i)   *John₁-i*   *Mary₂-eykey*   *caki₁,*₂*   *meli-lul*   *kkakk-i-ess-ta*
     John-NOM   Mary-DAT   self   hair-ACC   cut-HI-PST-DECL
     "John had his hair cut by Mary "but NOT" John had Mary cut her hair."

35 I would like to thank Takayoshi Ito (p.c.) to draw my attention to this fact.

(47) stems selected by /Hu/
   a. adjective stem: *nac-chwu* "lower(vt)" (<*nac* "low(adj))," *nuc-chwu* "laten(vt)" (<*nuc* "late (adj))," etc.
   b. intransitive stem: *kkay-wu* "wake up(vt)" (<*kkay* "wake up(vi)"), *tal-kwu* "burn(vt)" (<*tal* "burn (vi)"), *mac-chwu* "set(vt)" (<*mac* "fit(vi)"), etc.
   c. transitive stem: NOT ATTESTED!

On the one hand, (46a–c) suggest that /Hi/ can instantiate root-selecting, vP-selecting, and phase-selecting Cause, respectively. On the other hand, (47) suggests that /Hu/ may instantiate root-selecting and vP-selecting Cause but not phase-selecting Cause (i.e., Cause that selects VoiceP with EA).[36] This state of affairs is shown in (48) below.

(48)

```
                          CauseP
                    ╱            ╲
                 Cause          Cause'
                            ╱            ╲
                        VoiceP        Cause (=phase-selecting (40c))
                      ╱       ╲              │
                    EA       Voice'      /Hi/, */Hu/
                          ╱        ╲
                      CauseP     Voice[+EA]
                    ╱        ╲
                  ...       Cause'
                         ╱        ╲
                       vP        Cause (=vP-selecting (40b))
                     ╱    ╲           │
                   IA     v'       /Hi/, /Hu/
                       ╱     ╲
                     √R      v/Cause (=root-selecting (40a))
                                    │
                                /Hi/, /Hu/
```

As shown in (48), both /Hi/ and /Hu/ may appear as root-selecting and vP-selecting Cause. However, very significantly, /Hi/ but not /Hu/ may appear as phase-selecting Cause. If the passive sense is derived by bundling of Cause and immediately lower Voice as envisaged in (44), only /Hi/ may be involved.

7 Conclusion

In this study, based on my earlier proposals that at least three functional heads, i.e. Voice, Cause, and H-Appl, in addition to the category-determining v, may appear in the layered verb phrase in Japanese (Aoyagi 2010, 2017), I have argued that the obligatory adversity imposed on the subject of causative–passives, irrespective of inclusion or exclusion, is due to the loci of *-sase* and *-rare*. In causative–passives, *-sase* instantiates Cause that selects for VoiceP with EA, and, consequently, *-rare* should appear in H-Appl, but not in direct passive Voice. Furthermore, I have claimed that, as a marked option, phase-selecting Cause may be merged with H-ApplP with Sentient in its Spec. Given this option, the marginal status of passive–

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36 Or, alternatively, /Hu/ may be merged only after the arity of the predicate is determined to be one, hence, prohibited from instantiating root-selecting Cause, either. However, this possibility does not affect the text explanation as to why /Hu/ is exclusively causative. See Aoyagi (in preparation) for relevant discussions.

causatives as well as circumfixation of two causative morphemes on both sides of *-rare* comes as a natural result.

Turning to Korean, I have claimed that the /Hi/ morpheme is univocally causative, and its apparent passive use results from Voice–Cause bundling. Finally, I have attempted to attribute the possible and impossible passive use of /Hi/ and /Hu/ to their selectional properties.

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