

A Syntactic Account of Morphological Causatives in Japanese and Korean*

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1 Introduction

The goal of this paper is to give a syntactic account of morphological causatives in Japanese and Korean derived with the causative morphemes *-(s)ase* and *-Ci*¹, respectively. The morphemes attach to a stem predicate and introduce a causation event along with a causer argument to the base construction as exemplified in (1) and (2).²

- (1) Hiro-ga Haruka-ni hon-o yom-**ase**-ta. (Jpn)
Hiro-NOM Haruka-DAT book-ACC read-CAUS-PST
'Hiro made Haruka read a book.'

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¹ The allomorphs of the causative morpheme *-Ci* in Korean include *-i*, *-hi*, *-li*, *-ki*, *-wu*, *-kwu*, and *-chu*.

² Our investigation is restricted to the productive use of causative morphemes. Japanese *-(s)ase* used in the idiosyncratic or adversity causatives, for instance, will not be discussed in the paper.

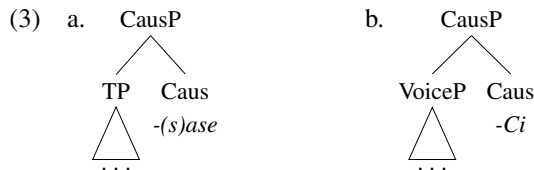
- (2) Cheli-ka Swuni-eykey chayk-ul ilk-**hi**-ess-ta. (Kor)
 Cheli-NOM Swuni-DAT book-ACC read-CAUS-PST-DECL
 ‘Cheli made Swuni read a book.’

The seemingly parallel constructions in (1) and (2) exhibit some sharp divergences regarding negation, Binding Condition B, subject-oriented adverbials, and coordination. There are two main approaches in the literature to address such typological variations. The split-lexicalist approach maintains that the variations arise because causative verbs are formed in different components of the grammar (i.e. either the syntax or the lexicon) in different languages (cf. Horváth and Siloni 2011). On the other hand, the syntactic approach holds that causative verbs are formed in the syntax across languages, while the differences between languages result from the different selectional properties of the relevant heads (cf. Pylkkänen 2008).

In this paper, we show that the variations between Japanese and Korean causatives can be accounted for from a purely syntactic perspective. Specifically, we propose that the head responsible for the causatives, *Caus*, selects for TP in Japanese, while it selects for VoiceP in Korean. We show that such a difference in the selectional requirements of *Caus* brings about the different behaviors of the causatives between the two languages. We flesh out the proposal in more detail in §2. Then in §3, we provide analyses of the variations based on the proposal. Finally, we give our concluding remarks in §4.

2 Proposal

We propose that in both Japanese and Korean, the causative morpheme is the realization of a head, *Caus(e)*, and that *Caus* in each language selects for phrases of different size (cf. Pylkkänen 2008): *Caus* in Japanese selects for non-finite TP, whereas *Caus* in Korean selects for active or nonactive VoiceP. The proposed structures involved in the causatives of Japanese and Korean are shown in (3a) and (3b), respectively.



The structures in (3a–b) are consistent with the fact that the causative morphemes in Japanese and Korean are capable of attaching to a wide range of predicates including transitive, unergative, and unaccusative verbs. In both languages, the complement phrase of *Caus* (i.e. TP or VoiceP) is compatible with all these types of verbs; hence, the productivity. This contrasts with the causative morpheme in a language like Hungarian, where the morpheme *-tAt*

can attach to transitive or unergative verbs but not to unaccusative verbs.³ The productivity of Japanese and Korean causative morphemes contrasting with the less productive Hungarian counterpart is illustrated in (4–6) below.

- (4) Transitive verb
- a. Hanako-wa Yosi-ni gohan-o tabe-sase-ta. (Jpn)
 Hanako-TOP Yosi-DAT rice-ACC eat-caus-PST
 ‘Hanako made Yoshi eat rice.’
- b. Cheli-ka aki-eykey wuywu-lul mek-i-ess-ta. (Kor)
 Cheli-NOM baby-DAT milk-ACC eat-CAUS-PST-DECL
 ‘Cheli made the baby eat milk.’
- c. János el olvas-tat-ta a könyv-et Mari-val. (Hun)
 János PRT read-CAUS-3SG.PST the book-ACC Mary-Inst
 ‘János made Mary read the book.’
- (5) Unergative verb
- a. Hanako-wa Yosi-o waraw-ase-ta. (Jpn)
 Hanako-top Yosi-ACC laugh-CAUS-PST
 ‘Hanako made Yoshi laugh.’
- b. Cheli-ka Swuni-lul wul-li-ess-ta. (Kor)
 Cheli-NOM Swuni-ACC cry-CAUS-PST-DECL
 ‘Cheli made Swuni cry.’
- c. Az edző ugrál-tat-ja Mari-t. (Hun)
 the coach.NOM jump-CAUS-PRS.DEF.DO Mari-ACC
 ‘The coach makes Mari jump.’
- (6) Unaccusative verb
- a. Hanako-wa chirato honne-o nozok-ase-ta.
 Hanako-TOP briefly real.concern-ACC appear-CAUS-PST
 (Jpn)
 ‘Hanako briefly showed her real concern.’
- b. Cheli-ka elum-ul nok-i-ess-ta. (Kor)
 Cheli-NOM ice-ACC melt-CAUS-PST-DECL
 ‘Cheli made the ice melt.’
- c. * Anna olvad-tat-ja a jeg-et. (Hun)
 Anna melt-CAUS-PRS.DEF.DO the ice-ACC
Int. ‘Anna made the ice melt.’

The causative morphemes in Japanese and Korean can not only attach to verbal predicates as in (4–6) but they can also attach to adjectival predicates as shown below.

³ Under the analysis adopted in this paper, this can be viewed as Caus in Hungarian selecting for active VoiceP that introduces an agent argument into the structure (Kratzer 1996).

- (7) a. *iya-gar-sase* (Jpn)
 hateful-GAR-CAUS
 ‘bother’
- b. *nop-i* (Kor)
 high-CAUS
 ‘raise’

Notice that in the Japanese example in (7a), there is a morpheme *-gar* intervening between the adjectival stem and the causative marker, while in the Korean example in (7b), the causative morpheme attaches to the adjectival stem directly. Harley (2008) suggests that *-gar* in Japanese is an evidential marker based on the observation that it appears in psychological predicates when the subjects of the predicates are non-first-person (Miyagawa 1989: 157). If Harley’s view is correct, then the causative morpheme in Japanese must take a phrase bigger than VoiceP, since crosslinguistically evidential markers appear very high in the structure, presumably above TP, as shown in the Korean, Makah, and Quechua examples below.

- (8) a. *John-i pap-ul mek-ess-tay.* (Kor)
 ‘I was told that John ate rice.’
- b. *Wiki-caxa-k-pid.* (Makah; Speas 2010)
 ‘It looks like bad weather.’
- c. *Wañu-nqa-paq-shi.* (Quechua; *ibid.*)
 ‘I was told that it will rain.’

Therefore, the requirement of the evidential marker *-gar* in (7a) motivates the structure of Japanese causatives in (3a), where Caus takes a TP complement. The causative in Korean, on the other hand, is not subject to such a requirement; hence, the structure in (3b).

3 Analysis

In this section, we describe a number of differences between Japanese and Korean causatives, specifically regarding negation, Binding Condition B, subject-oriented adverbials, and coordination. We attempt to show how these differences follow from the proposed structures of the causatives in the two languages.

3.1 Negation

Japanese and Korean causatives differ in where the negation marker can appear relative to the causative morpheme. In Japanese, the negation marker can appear either after the causative morpheme or between the stem predicate and the causative morpheme. This is illustrated in (9a–b), where the example sentences are from Horváth and Siloni (2011: 661, (5)).

- (9) a. Toru-wa Yoko-o ik-ase-**nakat**-ta. (Jpn)
 Toru-TOP Yoko-ACC go-CAUS-NEG-PST
 ‘Toru did not make Yoko go.’
 b. Toru-wa Yoko-o ik-**anaku**-sase-ta.
 Toru-TOP Yoko-ACC go-NEG-CAUS-PST
 ‘Toru made Yoko not go.’

In contrast, the negation marker in Korean must always appear after the causative morpheme as in (10a); it can never intervene between the stem predicate and the causative morpheme as shown in (10b).

- (10) a. Miri-ka aki-eykey pap-ul mek-i-ci **anh**-ass-ta. (Kor)
 Miri-NOM baby-DAT rice-ACC eat-CAUS-CONN NEG-PST-DECL
 ‘Miri did not make the baby eat rice.’
 b. *Miri-ka aki-eykey pap-ul mek-ci **anh**-i-ess-ta.
 Miri-NOM baby-DAT rice-ACC eat-CONN NEG-CAUS-PST-DECL
Int. ‘Miri made the baby not eat rice.’

The contrast between Japanese and Korean follows straightforwardly from our proposal if in both (and possibly all) languages, NegP, which hosts the negation marker, comes in below TP in the structure (cf. Pollock 1989). In the case of Japanese causatives, the negation marker may appear in two different positions because the causative contains two TP layers: the non-finite TP selected by Caus and the matrix finite TP. That is, if NegP comes in below the lower non-finite TP, the negation marker appears between the predicate and the causative morpheme in linear order; and if NegP comes in below the higher finite TP (and above the lower non-finite TP), then it appears after the causative morpheme in linear order. The two possibilities are illustrated in (11a) and (11b), respectively.

- (11) a. [TP₂ . . . [CausP . . . [TP₁ . . . [NegP . . . **Neg**] T₁] Caus] T₂]
 b. [TP₂ . . . [NegP . . . [CausP . . . [TP₁ . . . T₁] Caus] **Neg**] T₂]

In Korean, on the other hand, Caus selects for VoiceP, and thus the causative contains only one TP layer that comes above CausP. Therefore, there is only one possible position where the negation marker can appear in Korean. This is illustrated in (12) below.

- (12) [TP . . . [NegP . . . [CauseP . . . [VoiceP . . . Voice] Caus] **Neg**] T]

3.2 Binding Condition B

Japanese and Korean causatives also differ in whether the causer argument can bind the pronominal object of a stem verb. In Japanese, this is possible as shown in (13) (Hara 1999).

- (13) Toru_i-wa Kitaharaj-ni kare_{i/*j}-o syookai s-ase-ta. (Jpn)
 Toru-TOP Kitahara-DAT he-ACC introduction do-CAUS-PST
 ‘Toru made Kitahara introduce him.’

In contrast, it is not possible in Korean as in (14).

- (14) Cheli_i-ka chinkwuj-eykey ku_{i/*j}-lul an-ki-ess-ta. (Kor)
 Cheli-NOM friend-DAT he-ACC hold-CAUS-PST-DECL
 ‘Cheli made his friend hold him.’

In order to account for the contrast in binding facts illustrated in (13) and (14), we assume the theory of Reflexivity (Reinhart and Reuland 1993).⁴ According to Condition B of Reflexivity, a semantically reflexive predicate (i.e. a predicate whose co-arguments are co-indexed) must be reflexive-marked (i.e. the predicate must either be lexically reflexive or have a SELF-anaphor as an argument). The fact that the pronominal object can be bound by the causer in (13), then, indicates that the causer and the object of the main verb are not co-arguments of the same predicate (i.e. they must be arguments of distinct predicates), in that the co-indexation does not lead to ungrammaticality without any reflexive-marking. Conversely, the impossibility of the pronominal object being bound by the causer argument in (14) indicates that the causer and the object of the main verb are co-arguments of the same predicate.

The contrasting binding facts between the two languages may be accounted for if it is assumed that co-argumenthood is mediated via head movement, as stated rather informally in (15).

- (15) *Co-argumenthood of a complex predicate*⁵
 If a head X that introduces an argument α head-moves to adjoin to another head Y that introduces an argument β , then the arguments α and β are co-arguments of the complex predicate [X, Y].

Moreover, coordination facts indicate that the stem predicate does not undergo head movement to adjoin to Caus in Japanese, while it does in Korean

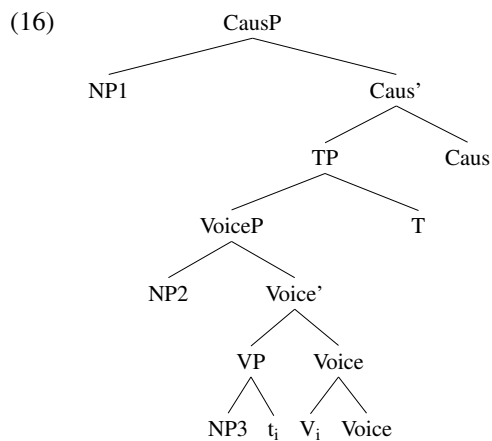
⁴The contrast may also be accounted for under a more traditional version of the binding theory in GB, according to which a pronoun must be free in its domain defined in (i).

(i) *Domain* (Hornstein et al. 2005: 248)
 α is the domain for β iff α is the smallest TP containing β and the governor of β .

The definition in (i), along with our proposal in (3a–b), offers a straightforward account of the contrast between (13) and (14). The domain of the pronominal object in (13) is the lower non-finite TP, which excludes the causer argument; on the other hand, the domain of the pronominal object in (14) is the matrix finite TP that contains the causer argument. Consequently, the pronominal object of a main verb may be bound in the former but not in the latter.

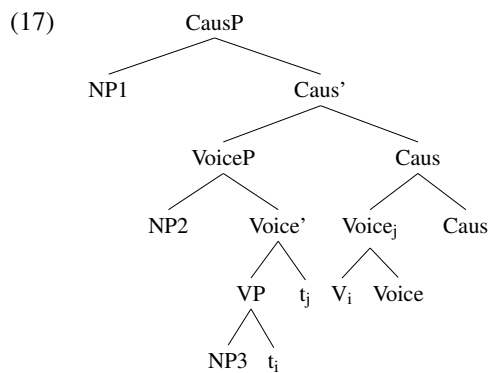
⁵Note that a similar assumption needs to be made anyway if one wishes to maintain both the theory of Reflexivity (Reinhart and Reuland 1993) and the theory of severed external arguments (Kratzer 1996).

(see §3.4 for discussion).⁶ This means that the stem predicate and Caus do not form a single complex predicate in Japanese, while they do in Korean. If this is the case, then the causer argument (i.e. the argument introduced by Caus) must not be a co-argument with the pronominal object (i.e. the argument introduced by the stem predicate) in Japanese; therefore, the causer may bind the pronominal object without violating Condition B of Reflexivity. Assuming that head movement takes place in Japanese from V to Voice, but not any further to T and to Caus, the example in (13) may be structurally represented as in (16).



In (16), NP2 and NP3 are co-arguments of the complex predicate [V, Voice] to the exclusion of NP1, which is the argument of Caus.

Turning to Korean, assuming that the stem predicate undergoes head movement to Voice and to Caus, the example in (14) may be structurally represented as in (17).



⁶This may be generalized as T blocking head movement in both Japanese and Korean.

In (17), a complex predicate [V, Voice, Caus] is formed via head movement; accordingly, the arguments NP1, NP2, and NP3, introduced by V, Voice, and Caus, respectively, become co-arguments of the complex predicate according to (15). Therefore, the causer argument (i.e. NP1) cannot be co-indexed with the pronominal object (i.e. NP3) in the causative in Korean without violating Condition B of Reflexivity. Note that the analytic causative with *ha-* ‘do’ in Korean allows co-indexation between the causer and the pronominal object as shown below.

- (18) Cheli_i-ka chinkwu_j-eykey ku_{i/*j}-lul an-key ha-yess-ta.
 Cheli-NOM friend-DAT he-ACC hold-CONN do-PST-DECL
 (Kor)
 ‘Cheli made his friend hold him.’

This is predicted under the current analysis: obviously, head movement is not involved between *an-* ‘hold’ and *ha-* ‘do’ in (18) in that the connective *-key* is intervening between the two, and thus the pronominal object *ku* ‘he’ is not a co-argument of the causer *Cheli*, allowing the former to be co-indexed with the latter without violating Condition B.

3.3 Subject-Oriented Adverbials

Subject-oriented adverbials are known to modify arguments that are “agentive enough” (Horváth and Siloni 2011; Pytkänen 2008). In languages like Japanese and Korean, such adverbials seem to be more sensitive to the structural position of NP that they modify than its θ -role. For instance, an adverbial like *ekcilo* ‘reluctantly’ in Korean can modify not only an agent subject in the transitive, but also a theme subject in the passive. This is illustrated in (19a–b).

- (19) a. Swuni-ka Cheli-lul ekcilo an-ass-ta. (Kor)
 Swuni-NOM Cheli-ACC reluctantly hug-PST-DECL
 ‘Swuni reluctantly hugged Cheli.’ (cf. Swuni is reluctant.)
 b. Cheli-ka Swuni-eykey ekcilo an-ki-ess-ta.
 Cheli-NOM Swuni-DAT reluctantly hug-Pass-PST-DECL
 ‘Cheli was reluctantly hugged by Swuni.’ (cf. Cheli is reluctant.)

What *Swuni* and *Cheli* in (19a) and (19b), respectively, have in common is that they both occupy the Spec,TP position. It may be concluded from this that a subject-oriented adverbial like *ekcilo* in Korean modifies NP in Spec,TP regardless of what θ -role it has. The same may be said for Japanese. The adverbial *iyaiya* ‘reluctantly’ can modify not only the agent subject *Hikari* in the transitive in (20a) but also the theme subject *Hiro* in the passive in (20b).⁷

⁷ Things are not as simple as they appear, though, in that the adverbial *iyaiya* in (19b) is reported to modify the demoted agent argument *Hikari* as well (see Kubota 2015 for relevant discussion).

- (20) a. Hikari-wa Hiro-o iyaiya dakishime-ta. (Jpn)
 Hikari-TOP Hiro-ACC reluctantly hug-PST
 ‘Hikari reluctantly hugged Hiro.’ (cf. Hikari is reluctant.)
 b. Hiro-wa Hikari-ni iyaiya dakishime-rare-ta.
 Hiro-TOP Hikari-DAT reluctantly hug-Pass-PST
 ‘Hiro was reluctantly hugged by Hikari.’ (cf. Hiro is reluctant.)

If subject-oriented adverbials modify an argument in Spec,TP in Japanese and Korean, it is predicted under the proposal made in the paper that in Japanese causatives, a subject-oriented adverbial may modify either the causer or the causee argument, while in their Korean counterparts, a subject-oriented adverbial may modify only the causer, but not the causee, argument even though the causee argument is “agent” of the stem verb in terms of its θ -role. This is because two TPs are involved in Japanese causatives, and the causer and the causee argument occupies matrix and embedded Spec,TP, respectively; whereas, there is only one matrix TP involved in Korean causatives, and only the causer, but not the causee, argument occupies the Spec,TP position. The prediction is borne out as shown in (21) (Shibatani 1972) and (22).⁸

- (21) Sono bengosi-wa tyuuchonaku Hiro-ni keiyakusyo-ni sain
 the lawyer-TOP without.hesitation Hiro-DAT contract-DAT sign
 s-ase-ta. (Jpn)
 do-CAUS-PST
 ‘The lawyer, without hesitation, made Hiro sign the contract.’ or ‘The lawyer made [Hiro sign the contract without hesitation].’
 (22) Cheli-ka Miri-eykey pap-ul ilpwule mek-i-ess-ta.
 Cheli-NOM Miri-DAT rice-ACC deliberately eat-CAUS-PST-DECL
 (Kor)
Possible. ‘Cheli deliberately made [Miri eat rice].’
Impossible. ‘Cheli made [Miri deliberately eat rice].’

Notice that in Korean, there is no independent reason why an adverbial should be prohibited from modifying the causee argument. For instance, a manner adverbial like *kuphakey* ‘hurriedly’ may modify either the causer or the

We suspect that just like the causative with *-(s)ase*, the passive with *-(r)are* might also be analytic in nature in Japanese, contrary to their Korean counterparts. Since it is beyond the scope of this paper, we will not attempt to give an analysis of the passive with *-(r)are* in Japanese, while admitting that the argument in this section might not be very strong for this reason.

⁸Note that in both Japanese and Korean, the position of adverbials is known to be quite free as long as they precede the main predicate. Different positions of the adverbial in (22), therefore, does not bring about any difference in interpretation.

causee argument as demonstrated in (23).⁹

- (23) Cheli-ka Swuni-eykey pap-ul kupahekey mek-i-ess-ta.
 Cheli-NOM Swuni-DAT rice-ACC hurriedly eat-CAUS-PST-DECL
 (Kor)
 ‘Cheli hurriedly made Swuni eat rice.’ *or* ‘Cheli made [Swuni eat rice hurriedly].’

3.4 Coordination

Finally, Korean and Japanese differ in the possibility of embedding a coordinated structure below Caus: in Japanese, verb phrases can be coordinated below Caus as in (24) (modified from Kuroda 2003: 455, (16)), but in Korean, they cannot as in (25).

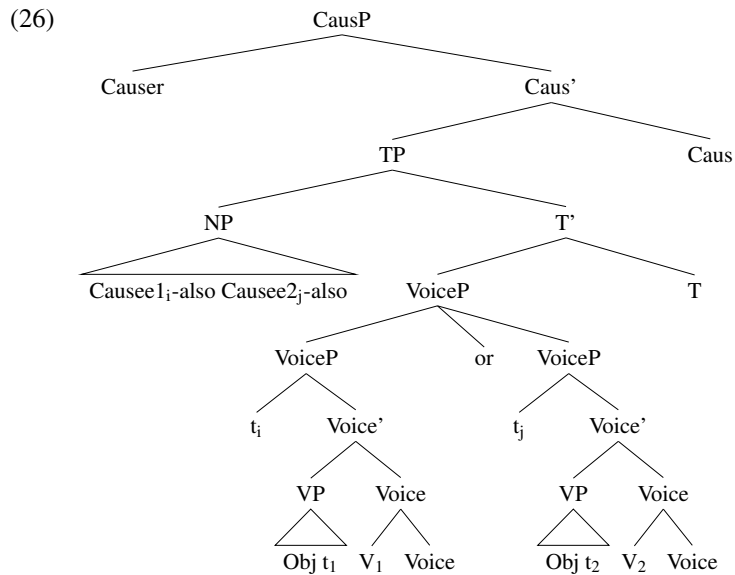
- (24) Hanako-wa Masao-mo Takaki-mo uti-o soozisuru-ka
 Hanako-TOP Masao-also Takaki-also house-ACC clean-or
 heyai-dai-o haraw-aseru kotoni si-ta. (Jpn)
 room-rent-ACC pay-CAUS that do-PST
 ‘Hanako decided to make Masao and Takaki clean the house or pay room rent.’
- (25) *Cheli-ka Swuni-to Pwuni-to os-ul ip-kena sinpal-ul
 Cheli-NOM Swuni-also Pwuni-also clothes-ACC wear-or shoes-ACC
 sin-ki-ess-ta. (Kor)
 put.on-CAUS-PST-DECL
Int. ‘Cheli made Swuni and Pwuni [put on clothes or put on shoes].’

Recall from §3.2 that the binding facts were accounted for under Reflexivity (Reinhart and Reuland 1993) and the proposal that head movement creates a complex predicate whose co-arguments were previously arguments of distinct heads (i.e. (15)). In that section, we have assumed that in Japanese causatives, V head-moves to Voice, but not any further to T or to Caus; whereas in their Korean counterparts, V head-moves to Voice, and then to Caus. In both cases, head movement was assumed to stop before T.

The assumption fits nicely with the coordination facts in (24) and (25). First, coordination of the complements of the causative head appears to be possible in the Japanese example in (24) because V head-moves to Voice, but not to T or Caus, and thus coordinating VoicePs does not interfere with the

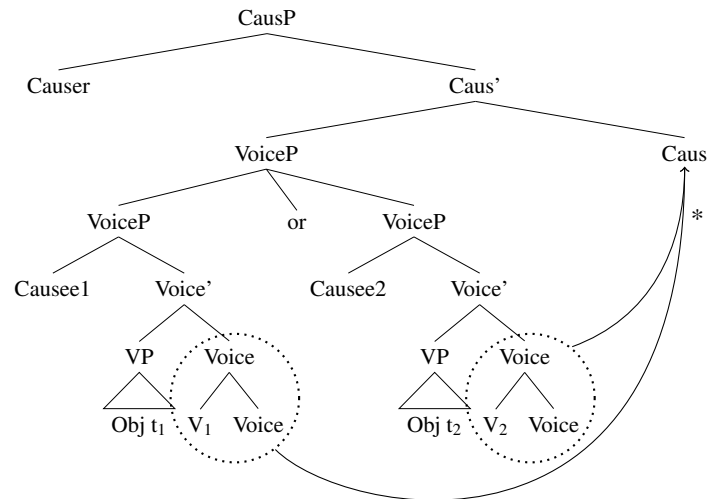
⁹In (23), the lower scope interpretation becomes rather weak (although not impossible) if the adverbial is moved to the position immediately after the structural subject. But the contrast between the subject-oriented and the manner adverbials in (22) and (23), both in the position immediately before the verb, still proves the point that there is no independent reason why an adverbial should not modify the causee in Korean.

chains of head movement. This is illustrated in the simplified structure in (26) below.



On the other hand, in the Korean example in (25), coordination of the complements of the causative head is impossible because V must head-move to Voice and then to Caus in Korean, but when VoicePs are coordinated below Caus, the heads in both conjuncts must target the single Caus head. This is illustrated in (27) below.

(27)



Note that coordination of the complements of a tense marker is allowed in Korean.

- (28) Cheli-ka os-ul ip-kena sinpal-ul sin-ess-ta.
 Cheli-NOM clothes-ACC put.on-or shoes-ACC put.on-PST-DECL
 'Cheli put on clothes or put on shoes.'

The contrast between (25) and (28) suggests that head movement of V takes place to Caus in Korean, but not any farther to T. Also, we have noted in §3.2 that analytic causatives with *ha-* 'do' in Korean do not involve head movement to Caus. This means that verb phrases can be coordinated in the analytic causative in Korean, which appears to be the case as shown below.

- (29) Cheli-ka Swuni-to Pwuni-to os-ul ip-kena sinpal-ul
 Cheli-NOM Swuni-also Pwuni-also clothes-ACC wear-or shoes-ACC
 sin-key ha-yess-ta. (Kor)
 put.on-CONN do-PST-DECL
 'Cheli made Swuni and Pwuni [put on clothes or put on shoes].'

An example like (29) again supports the view that in Korean morphological causatives, head movement to Caus is required, and the requirement blocks coordination below Caus.

As a final note, the analysis presented here shows that the difference between Japanese and Korean causatives regarding coordination does not necessarily motivate the need for a computationally active lexicon, contra Horváth

and Siloni (2011), who claim that such a difference arises because causative verbs are formed in the lexicon in a language like Korean, while they are formed in the syntax in a language like Japanese. The difference could still be accounted for from a purely syntactic point of view in terms of head movement.

4 Conclusion

We have argued that Japanese and Korean morphological causatives can be accounted for from a purely syntactic perspective. We have suggested that the causative morpheme, the morphological realization of a head *Caus*, in Japanese and Korean selects for a complement of different size, TP and VoiceP, respectively. It has been shown that the differences between Japanese and Korean follow from the different selectional requirements of *Caus* as such: the causative in Japanese, but not in Korean, may (a) have the negation marker between the stem predicate and the causative morpheme, (b) contain two binding domains, and (c) have two subject positions that can be targeted by a subject-oriented adverbial. As for the coordination facts, where in Japanese but not in Korean coordination of the complements of the causative morpheme is allowed, we attributed them to the requirement of head movement of V to *Caus* in Korean.

This work may contribute to the larger theoretical discussion on the role of the lexicon in the grammar. The discussion in the paper supports the view that morphological processes do not necessarily have to take place in the lexicon since the same can be done in the syntax (cf. Pytkänen 2008; Harley 2008; Bruening 2013). While we did not give definitive evidence that a lexicalist solution such as the one in Horváth and Siloni (2011) would be empirically wrong, we showed that at least it is not necessary to account for the different patterns of the morphological causatives in Japanese and Korean.

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