

Passive constructions in Korean have been a hot topic since the earlier days of Korean generative grammar, including Chang(1993) and Kim(2005) where HPSG analyses of the Korean passives were proposed. This paper aims to build on these previous studies and give a detailed type hierarchy for passive verbs by considering a range of relevant data in a rather comprehensive way.

1. Issues

(i) Typical passive forms of verb in Korean contain suffixes like *-i*, *-hi*, *-li* and *-ki*, so the active-passive correspondence has been treated either as part of a syntactic process or as a lexical redundancy rule. However there are a large number of exceptions to this generalization, and this should be taken into consideration. For example, there is no passive counterpart **chac-ki-* of an active verb *chac-* 'find.'

(ii) Auxiliary passive construction involves addition of an expression '*-e/-a ci-*' right next to the verb. Though it is a productive operation, yet certain verbs like *cap-* 'catch' become awkward at best when passivized in this way (*??cap-a ci-*) 'be caught.'

(iii) The Korean verbs that passive light verbs can attach to in order to form a passivized verbal expression are somewhat limited. For example, *cheypho pat-ta* 'arrest-receive' is ungrammatical while *cheypho tangha-ta* 'arrest-suffer' is fine.

(iv) There are some cases which do not show any passive suffix morphology on the surface, but yet show passive-active correspondence semantically. For example, verbs like *mac-* 'be hit' and *ttayly-* 'hit' behave like a passive-active pair in terms of their argument structure.

2. The Data There seems to be no clear consensus as to the scope of the passive constructions in Korean. We will adopt the following assumption, based on a cross-linguistic perspective.

- (1) a. In principle, only transitive verbs can be transformed into passives. So, the passive sentence must have at least two thematic roles: agent and theme.
- b. In canonical cases, there is a corresponding active form for each passive form.

As for the data we consider in this study, we started from Yang(1979) where about a hundred passive expressions are discussed. Each item in the Yang's list was checked against the following four resources and some controversial cases were discarded: *Sejong Electronic Dictionary*, *Sejong POS-tagged corpus*, *Standard Korean Dictionary*, *Yonsei Korean Dictionary*.

Building on previous studies (Sohn(1999), Kim(2005)), we classified Korean

passive expressions into four subclasses.

(2) **Suffixal Passives:** The correspondence between an active verb form and its passive is phonologically conditioned: *-i*, *-hi*, *-li* and *-ki*.

- a. *koyangi-ka* *cwi-lul* *cap-ass-ta.*
 cat-NOM rat-ACC catch-PAST-DC
 ‘A cat caught a rat.’
- b. *cwi-ka* *koyangi-eykey* *cap-hi-ess-ta.*
 rat-NOM cat-DAT catch-PASS-PAST-DC
 ‘A rat was caught by a cat.’

(3) **Auxiliary Passives:** There are phrasal passives which consist of a verb stem followed by the complementizer *-e/a* and the auxiliary *ci-*. Not all active verbs allow these constructions as mentioned above.

- a. *Mia-ka* *chayk-ul* *ccic-ess-ta.*
 Mia-NOM book-ACC tear-PAST-DC
 ‘Mia tore a book.’
- b. *chayk-i* *ccic-e* *ci-ess-ta.*
 book-NOM tear-COMP AUX-PAST-DC
 ‘A book was torn.’
- c. *??cwi-ka* *cap-a* *ci-ess-ta.*
 rat-NOM catch-COMP AUX-PAST-DC
 ‘A rat was caught.’

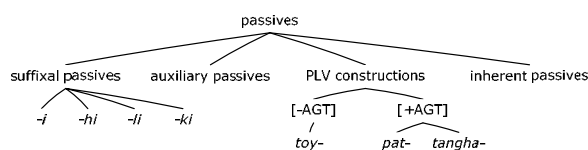
(4) **Passive Light Verb Constructions:** They are constructed of a verbal noun plus a passive light verb like *-toy*, *-pat* and *-tangha*. There is a certain co-occurrence restrictions between the verbal nouns and the passive light verbs.

- a. *kyengchal-i* *Mia-lul* *cheypho-ha-yess-ta.*
 policeman-NOM Mia-ACC arrestment-LV-PAST-DC
 ‘A policeman arrested Mia.’
- b. *Mia-ka* *kyengchal-eykey* *cheypho-toy-ess-ta.*
 **Mia-ka* *kyengchal-eykey* *cheypho-pat-ass-ta.*
Mia-ka *kyengchal-eykey* *cheypho-tangha-yess-ta.*
 Mia-NOM policeman-DAT arrestment-PLV-PAST-DC
 ‘Mia was arrested by a policeman.’
- c. *Mia-ka* *kyengchal-eykey* *cheypho-ka* *toy-ess-ta.*
 **Mia-ka* *kyengchal-eykey* *cheypho-lul* *toy-ess-ta.*
Mia-ka *kyengchal-eykey* *cheypho-lul* *tangha-yess-ta.*
 **Mia-ka* *kyengchal-eykey* *cheypho-ka* *tangha-yess-ta.*
 Mia-NOM policeman-DAT arrestment-NOM/ACC PLV-PAST-DC
 ‘Mia was arrested by a policeman.’

(5) **Inherent Passives:** This group includes lexical passive verbs whose forms show no systematic phonological relations to its active counterpart.

- a. *Inho-ka* *Mia-lul* *ttayly-ess-ta.*
 Inho-NOM Mia-ACC hit-PAST-DC
 ‘Inho hit Mia.’
- b. *Mia-ka* *Inho-eykey* *mac-ass-ta.*
 Mia-NOM Inho-DAT be hit-PAST-DC
 ‘Mia was hit by Inho.’

The four kinds of passives in Korean are sketched out below.

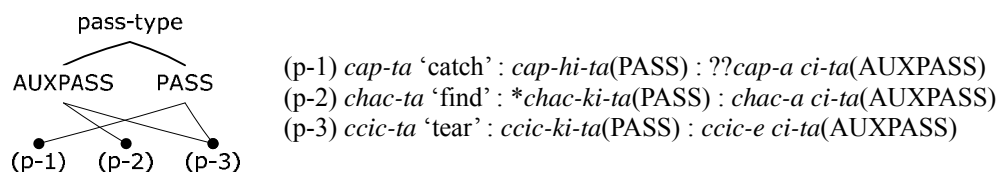


3. The Proposal

3.1. Lexical types for Suffixal, Auxiliary, and Inherent Passives

We propose

that verbs in Korean are classified into four sub-types with respect to passivization, excluding the ones that do not allow any kind of passivization, for instance, *talm-* ‘resemble.’ The sub-types are primarily differentiated from each other according to whether it allows only one of the suffixal or auxiliary passivization (p-1, p-2 below), or both (p-3 below). We could find relevant verbs in Korean for each of the three sub-types.



The other sub-type covers the cases of inherent passive. There were only two cases we found: *iki-* ‘win’ (vs. *ci-* ‘lose’) and *ttayly-* ‘hit’ (vs. *mac-* ‘be hit.’) Interestingly, these two active verbs allow neither suffixal nor auxiliary passivization. In other words, if a verb has an inherently passivized counterpart, it does not allow any other passivization process. Thus we suggest inherent passives form a type on its own.

The following lexical rules show how each of the passive sub-types is made use of in the actual derivation of appropriate passive forms. Rule (6) shows how *cap-hi* ‘be caught’ (an example of p-1) is derived. The PASS-TYPE has as its value [AUXPASS -, PASS +], indicating that it disallows auxiliary passivization while allowing suffixal passive. The constraint in (7) is needed to block the derivation of auxiliary passive for this type of passive verb, namely, ??*cap-a ci* ‘be caught’.

$$(6) \left[\begin{array}{l} v-tr-p-1 \\ PHON \langle \textcircled{1}cap \rangle \\ PASS-TYPE \left[\begin{array}{l} AUXPASS \quad - \\ PASS \quad + \end{array} \right] \\ ARG-ST \langle NP_i, NP_j \rangle \\ SEM \textcircled{2} \left[\begin{array}{l} INDEX \quad s \\ ARG1 \quad i \\ ARG2 \quad j \end{array} \right] \end{array} \right] \rightarrow \left[\begin{array}{l} v-pass \\ PHON \langle \textcircled{1}cap-hi \rangle \\ SYN.HEAD.PASS \quad + \\ ARG-ST \langle NP_j, (NP[dat]_i) \rangle \\ SEM \quad \textcircled{2} \end{array} \right]$$

$$(7) \textit{head-lex-aux-pass-rule} : \left[\begin{array}{l} hd-lex-pass-ph \\ SYN.HEAD.PASS+ \\ SUBJ \langle \textcircled{2} \rangle \\ COMPS \langle \langle \textcircled{1} \rangle \rangle \end{array} \right] \rightarrow \textcircled{3} \left[\begin{array}{l} v-comp \\ PASS-TYPE.AUXPASS+ \\ ARG-ST \langle \textcircled{1}, \textcircled{2} \rangle \end{array} \right], H \left[\begin{array}{l} v \\ SYN.HEAD \left[\begin{array}{l} PASS+ \\ AUX+ \end{array} \right] \\ SUBJ \langle \textcircled{2} \rangle \\ COMPS \langle \textcircled{3} \rangle \end{array} \right]$$

Likewise, we can show how the appropriate passive forms for p-2 verbs are derived while inappropriate forms are blocked. Rule (8) shows how the auxiliary passive form of *chac-a ci-ess-ta* ‘was found’ can be derived, while the constraint in (9)

is needed to block the derivation of its suffixal counterpart **chac-ki*- ‘was found.’

$$(8) \left[\begin{array}{l} V' \\ \text{PHON} \langle \text{chac-a ci-ess-ta} \rangle \\ \text{SYN.HEAD.PASS} + \\ \text{SUBJ} \langle \textcircled{2} \rangle \\ \text{COMPS} \langle \textcircled{3} \rangle \end{array} \right] \rightarrow \textcircled{3} \left[\begin{array}{l} v\text{-comp} \\ \text{PHON} \langle \text{chac-a} \rangle \\ \text{STEM} \langle v\text{-tr-p-2} \rangle \\ \text{PASS-TYPE} \left[\begin{array}{l} \text{AUXPASS} + \\ \text{PASS} - \end{array} \right] \\ \text{ARG-ST} \langle \textcircled{1}, \textcircled{2} \rangle \end{array} \right], \left[\begin{array}{l} V \\ \text{PHON} \langle \text{ci-ess-ta} \rangle \\ \text{SYN.HEAD} \left[\begin{array}{l} \text{PASS} + \\ \text{AUX} + \end{array} \right] \\ \text{SUBJ} \langle \textcircled{2} \rangle \\ \text{COMPS} \langle \textcircled{3} \rangle \end{array} \right]$$

$$(9) \begin{array}{l} v\text{-pass} \Rightarrow \\ \left[\begin{array}{l} \text{STEM} \left[\begin{array}{l} v\text{-tr} \\ \text{SYN.HEAD.PASS} - \\ \text{PASS-TYPE.PASS} + \end{array} \right] \\ \text{SYN.HEAD.PASS} + \end{array} \right] \end{array}$$

In the case of p-3, both are available as passive forms, and thus should be allowed to be derived by the following rules.

$$(10) \left[\begin{array}{l} v\text{-tr-p-3} \\ \text{PHON} \langle \textcircled{2} \text{ccic-} \rangle \\ \text{PASS-TYPE.PASS} + \end{array} \right] \rightarrow \left[\begin{array}{l} v\text{-pass} \\ \text{PHON} \langle \textcircled{2} \text{ccic-ki} \rangle \\ \text{SYN.HEAD.PASS} + \end{array} \right]$$

$$(11) \left[\begin{array}{l} V' \\ \text{SYN.HEAD.PASS} + \end{array} \right] \rightarrow \left[\begin{array}{l} v\text{-comp} \\ \text{PHON} \langle \text{ccic-e} \rangle \\ \text{STEM} \langle v\text{-tr-pc-3} \rangle \\ \text{PASS-TYPE.AUXPASS} + \end{array} \right], \left[\begin{array}{l} V \\ \text{PHON} \langle \text{ci-ess-ta} \rangle \\ \text{SYN.HEAD.AUX} + \end{array} \right]$$

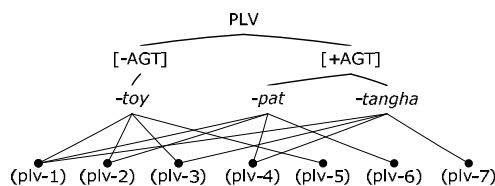
Inherent passive verbs like *mac*- ‘be hit’ in (5b) need to have passive information from the start. Since it has has as its value [AUXPASS -, PASS -], constraints (7) and (9) will block the derivation of its suffixal or auxiliary passivization.

$$(12) \begin{array}{l} mac\text{-} \\ \left[\begin{array}{l} \text{inherent-pass-v} \\ \text{SYN.HEAD.PASS} + \\ \text{PASS-TYPE} \left[\begin{array}{l} \text{AUXPASS} - \\ \text{PASS} - \end{array} \right] \\ \text{ARG-ST} \langle \text{NP}_i, \text{NP}[\text{dat}]_j \rangle \end{array} \right] \end{array}$$

In this way, we can provide a more adequate description of the distribution of passive verb forms as discussed in the list of issues given in (i), (ii), and (iv) of Section 1 (Issues) in the above.

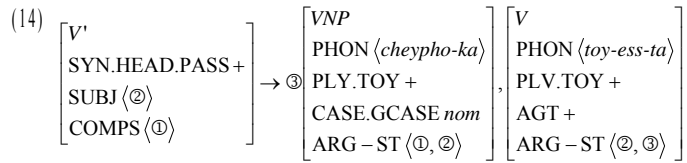
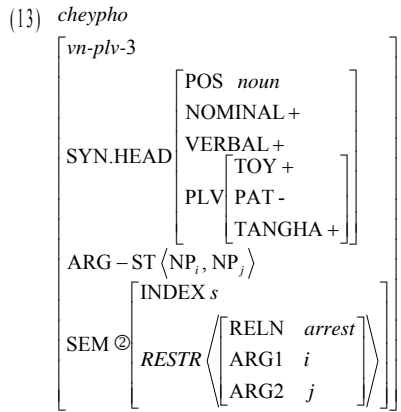
3.2. Verbal Nouns and Passive Light Verbs

Passive light verbs in Korean have restrictions on their co-occurring verbal nouns. Since there are three passive light verbs available for combination with verbal nouns, there are seven types of verbal nouns with respect to passivization, excluding a case where a verbal noun cannot take any of the passive light verb (*kongpwu* ‘study’). It is rather surprising that actual verbal nouns for each of the logically possible seven types are attested for in Korean.



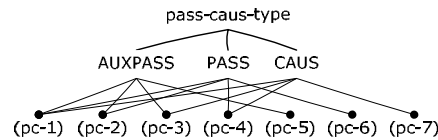
- (plv-1) *cipay* ‘government’ + *toy*-/*pat*-/*tangha*-
- (plv-2) *swuye* ‘conferment’ + *toy*-/*pat*-/**tangha*-
- (plv-3) *cheypho* ‘arrest’ + *toy*-/**pat*-/*tangha*-
- (plv-4) *komwun* ‘torture’ + **toy*-/*pat*-/*tangha*-
- (plv-5) *sayong* ‘use’ + *toy*-/**pat*-/**tangha*-
- (plv-6) *conkyeng* ‘respect’ + **toy*-/*pat*-/**tangha*-
- (plv-7) *kangkan* ‘rape’ + **toy*-/**pat*-/*tangha*-

A sample derivation is given below.



In the above AVM, the feature PLV has as its value [TOY, PAT, TANGHA], each of which has a polarity value in turn, thus enabling the verbal noun to combine with appropriate passive light verbs. Then the issue number (iii) in Section 1 can be properly handled now.

In this research, building on relevant previous studies, we have provided a more fine-grained treatment of passive constructions in Korean in an HPSG framework. An interesting and complicating aspect of suffixal passivization in Korean is that the same suffixes are used for causativization in most cases. For example, *cap-hi-ta* with the suffix *hi* can be interpreted as a passive verb meaning ‘be caught’ or a causative verb meaning ‘have someone/something caught.’ Taking this fact into consideration, we can extend the type hierarchy in the above to include suffixal causatives as follows.



- (pc-1) *ccic-ta* ‘tear’ : *ccic-ki-ta*(PASS) : *ccic-ki-ta*(CAUS) : *ccic-e ci-ta*(AUXPASS)
- (pc-2) *mit-ta* ‘believe’ : *mit-ki-ta*(PASS) : **mit-ki-ta*(CAUS) : *mit-e ci-ta*(AUXPASS)
- (pc-3) *pec-ta* ‘take off’ : **pec-ki-ta*(PASS) : *pec-ki-ta*(CAUS) : *pec-e ci-ta*(AUXPASS)
- (pc-4) *cap-ta* ‘catch’ : *cap-hi-ta*(PASS) : *cap-hi-ta*(CAUS) : ??*cap-a ci-ta*(AUXPASS)
- (pc-5) *chac-ta* ‘find’ : **chac-ki-ta*(PASS) : **chac-ki-ta*(CAUS) : *chac-a ci-ta*(AUXPASS)
- (pc-6) *pel-ta* ‘earn’ : *pel-li-ta*(PASS) : **pel-i-ta*(CAUS) : ??*pel-e ci-ta*(AUXPASS)
- (pc-7) *ip-ta* ‘wear’ : **ip-hi-ta*(PASS) : *ip-hi-ta*(CAUS) : ??*ip-e ci-ta*(AUXPASS)

We might extend the type hierarchy further to include the cases of Auxiliary causatives like *-key ha-ta* and others, but it falls outside the scope of this paper.

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