Research Article

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The grammatical status of –eykey and its implications on the syntax of Korean morphological passives

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Abstract: This study investigates the grammatical status of the so-called Dative particle –eykey and its implications on the syntax of Korean morphological/lexical passives. We first argue that this type of passive derives from causative/experiential constructions in this language. The former and the latter involve the same form of verb, but in the process of passivization the null passive morphology on the embedded transitive verb phrase selected by the matrix causative/experiential morpheme demotes the Dative –eykey-marked Causee in embedded [Spec, VoiceP] position from an argument to an adjunct, besides the embedded transitive lexical verb losing the ability to assign Accusative Case. The so-called animacy restriction on the Nom-marked subject a noun phrase (NP) in –eykey passives is ascribed to the requirement that it takes the Causer/Experiencer role in –eykey passives. In contrast, –ey uyhay passives are derived from the null passive morphology attached to the matrix causative verb complex, thus the matrix Causer/Experiencer subject being demoted and realized with the particle –ey uyhay.

Keywords: –eykey, morphological/lexical passives, –ey uyhay, causatives/experientials, animacy restriction

1 Introduction

In Korean, the particle –eykey attached to a noun phrase (NP) is known to have structurally and functionally multiple roles. First and foremost, it not only represents a Dative Case/case marker in the ditransitive verb construction (1a), but it also represents either an ablative case marker (1b) or an Experiencer Case/case marker in the stative psych adjective construction (1c).

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Besides these grammatical roles, another peculiar manifestation is its use in morphological/lexical passives such as (2), where \(-eykey\) as well as its sibling \(-ey uyhay\) has been analyzed on a par with the preposition \(by\) in English passives.

(2) Totwuk-i kyengchal-eykey/-ey uyhay cap-hy-ess-ta.¹

thief-Nom police-Dat/-by arrest-CAU/PAS-Pst-Dcl

“The thief was arrested by a policeman/had a policeman arrest him.”

Concentrating on its realization in Korean passives, we argue that it most plausibly has an intimate connection in syntactic derivation with its counterpart of the same form (i.e., the particle \(-eykey\)) in causatives/experientials of Korean (to gain a quick understanding of them, they correspond to causatives/experientials of English that are constructed with the causative/experiential verb \(have\)),² but not with the \(by\)-phrase-like grammatical function.

## 2 An outstanding issue raised

As shown in (2), in Korean the \(by\)-phrase-like element is usually marked interchangeably either with the particle \(-eykey\) or \(-ey uyhay\), thus leading us to the aforementioned hypothesis that the particle \(-eykey\) has the same function as the preposition \(by\) in English passives does. This hypothesis can readily be rejected by the fact that in morphological passives such as (3) and (4), an inanimate subject NP can co-occur with the particle \(-ey uyhay\) but not with the particle \(-eykey\) (cf. Klaiman 1991; Park 1994; Yeon 2003; Choi 2018).

(3) Ku namwu-ka Cheli-*eykey/-ey uyhay cal-li-ess-ta.

the tree-Nom Cheli-Dat/-by cut-CAU/PAS-Pst-Dcl

“The tree was cut by Cheli.”

(4) Cip aph tamcang-i halapeci-*eykey/-ey uyhay hel-ly-ess-ta.

Home front fence-Nom grandfather-Dat/-by pull-down-CAU/PAS-Pst-Dcl

“The entrance fence was pulled down by my grandfather.”

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¹ The literature on experiential and causative \(have\) is vast (Kruisinga 1931:387, Jespersen 1940:14, Kirchner 1941:150, Yamakawa 1958:189, Visser 1973:2156, Strang 1970:151, Palmer 1987: 165, among others). More recently, Ikegami (1990), Inoue (1995), Tomozawa (2002), and Łęcki (2010) made formal syntactic, semantic, and historical linguistic studies of these two types of \(have\). Abstraction away from the detailed discussion on them, the following examples taken from Inoue (1995) illustrate these two types: (ia–b) represent the experiential use of \(have\), and (ic–d) its causative use.

(i) a. John had his car break down.
   b. John had his savings wiped out.
   c. John had Bill wash the car.
   d. John had the car washed.

The examples that are relevant to the discussion of Korean passives in the text are (ib) and (ic). In both cases, there is a transition from the action of “wiping out” and “washing” to the effect of that action, which is the resulting state of the object DP. Besides, the two \(have\) constructions place the animate subject DP in the position of grammatical subject to foreground it. Thus, the matrix \(have\) is a thematic verb, in that it assigns an external theta role (Action/Experimenter). At the same time, it can be passivized, having the spec of the matrix Voice dethematized. Incidentally, it has its variant of similar use: the verb \(get\). However, as generally acknowledged, the verb \(get\) followed by an object and a passive form of a VP is more restricted than the verb \(have\) with the same structure. Put concisely, it tends to be causative, rather than being both experiential and causative.

² Since we hold on to the well-known thesis that in Korean, the morphemes such as \(i\), \(hi\), \(li\), and \(ki\), ambiguously has either a CAUsativizing or a PASsativizing function, we annotate it with CAU/PAS from now on. Meanwhile, such morphemes as \(wu\), \(kwu\), and \(chwu\) in addition to these ambiguously used morphemes are known only to have a CAUsativing function.
In addition to passives in –

We diverge from the previous analysis of morphological passives in Korean as derived from causatives/experientials. This so-called animacy restriction with –eykey passives runs counter to the hallmark of passives across languages: the Theme argument, either animate or inanimate, is “promoted” to the subject position in passives. If (3–4) and (5–6) with –eykey phrases were run-of-the-mill passives where Theme NPs undergo Raising to Subject, it would follow that the inanimate subject NP in (3–4) and (5–6) is construed as having the thematic role of Theme. This would in turn predict that it can be animate or inanimate, contrary to the fact.

3 Morphological passives in Korean as derived from causatives/experientials

We diverge from the previous analysis of –eykey passives in two respects. First, the animacy restriction with –eykey passives in Korean has not been defined properly in the previous literature. Note that the morphological passives in (7) and (8) have inanimate subjects co-occurring with –eykey phrases, and they are acceptable.

(7) Chwusinswu-ka Shinsoo Choo-Nom
   Chwusinswu-ka Shinsoo Choo-Nom
   cap-hy-ess-ta.
catch-CAU/PAS-Pst-Dcl
   “Shinsoo Choo’s battered hit was caught by the right fielder.”

(8) Son Heungmin-uy kongkyek-i sangtay swupiswu-eykey/-ey uyhay
   Son Heungmin-Gen attack-Nom opponent defensive player-Dat/-by
   mak-hy-ess-ta.
   block-CAU/PAS-Pst-Dcl
   “Heungmin Son’s offensive attack was blocked by the opponent defensive player.”

The telling difference between (3–6) and (7–8) is that what matters in –eykey passives is not animacy itself but lexically attributed mobility on the part of Nom-marked subject NPs. Such subject NPs as thakwu “battered ball” and kongkyek “attack” in (7–8) are obviously not animate but construed as evoking motion in action.

Second, there is good reason to analyze the particle –eykey in this type of passives as having a connection in syntactic derivation with the same form of particle in causatives/experientials of Korean. First of all, note that the particle –eykey is not allowed in syntactic/periphrastic passives that employ the auxiliary verb –e ci- “be/become” as in (9), though the longer form of particle –ey uyhay is fine.

3 In addition to (5) and (6), Oshima (2006) also reports that the following example where a subject inanimate NP co-occurs with the particle with –eykey is bad. This example is, however, not fine even with the replacement of –eykey with –ey uyhay.

   bag-Nom Inho-Dat lift-PAS-Pst-Dcl
   “The bag was lifted by Inho.” (intended)
We submit that passives like (9) with the particle –eykey is unacceptable because –e ci- periphrastic passives do not have anything in syntactic derivation to do with causatives/experientials that allow for the particle. Rather than in –e ci- syntactic/periphrastic passives, the particle –eykey is productively realized in causatives like (10a) as well as the so-called experientials/adversative passives like (10b) on top of run-of-the-mill direct passives like (10c). ⁴

Note that in (10a–c), the same form of morphologically complex verb nwul(u) + li derives from a combination of the transitive verb nwul(u)- “press” and the causative/experiential/passive morpheme -li. Since this morphologically complex verb can be used ambiguously as a causative/experiential/passive verb, it follows that the morpheme -li has been analyzed as having the three-way ambiguous function as a causativizer/experientializer/passivizer (Yang 1979; Kim 1994; Park 1994; Oshima 2006).

However, the minimal departure from this analysis is that, in keeping with Haspelmath’s (1990) thesis that the causative is a common source of grammaticalization into the experiential/passive, ⁵ the morpheme -li or more generally the archmorpheme -I representing the four morphemes -i/hi/li/ki is essentially a causative, but it also derives from this source the adverbive passive/experiential in (10b) or the direct

⁴ In addition to nwuluta “press” exemplified in the text, the other verbs that typically denote malefactive actions, such as palpa “stop on,” kkakka “cut,” capta “catch, arrest,” mula “bite,” nwukka “bind,” ccikta “hack,” mila “push,” ttutta “pluck, tear off,” caluta “cut,” ielta “shake off, rob,” and kkekka “break, bend” tend to be used either in an experiential/adversative passive or in a direct passive on top of a causative (Kim 1994, Oshima 2006). The following examples of the two more verbs illustrate their three-ways uses:

(i) Inho-ka Mina-eykey (pal-ul) palp-hi-ess-ta.
   Inho-Nom Mina-Dat foot-Acc step.on-CAU/PAS-Pst-Dcl
   “Inho had his foot stepped on by Mina.” or “Inho made Mina step on his foot.” or
   “Inho was stepped on by Mina.”
(ii) Inho-ka Mina-eykey (son-ul) cap-hi-ess-ta.
    Inho-Nom Mina-Dat hand-Acc hold-CAU/PAS-Pst-Dcl
    “Inho had his hand grabbed by Mina.” or “Inho made Mina grab his hand.” or
    “Inho was grabbed by Mina.”

⁵ The reason for adding the anaphor caki in this example is that causatives tend to be interpreted as (adversative) passive if the surface Acc-marked object has a close relation with the surface Nom-marked subject (Washio 1993, Yeon 2002, 2003).

⁶ Yang (1979) lists 100 representative transitive verbs [see the Appendix below where the whole list is taken from Oshima (2006)], of which 91 can be suffixed with –i/hi/li/ki. According to Yang’s judgment, among the 91 verbs, 36 are fully acceptable either as passives or as causatives; 26 are fully acceptable as passives and almost fully acceptable as causatives; 9 are fully acceptable as passives and marginally acceptable as causatives; 12 are acceptable only as passives; and 10 are acceptable only as causatives. It is beyond the scope of this study to investigate what regulates the lexicalization, i.e., the causativization/passivization of (transitive) verbs in Korean. See Oshima (2006) for such an attempt.
passive in (10c), in the same fashion as the English causative/experiential/passive verb have does. More concretely, the CAUS(ative) archmorpheme -I has the following structure where it selects a VoiceP as its complement:

(11)

\[
\begin{array}{c}
\text{VoiceP}_{\text{ACT}} \\
\text{NP}_1 \\
\text{Inho-ka} \\
\text{CAUP} \\
\text{VoiceP}_{\text{ACT}} \\
\text{NP}_2 \\
\text{Mina-eykey} \\
\text{VP} \\
\text{NP}_3 \\
\text{V} \\
\text{chayk- ul}
\end{array}
\]

The analysis of the archmorpheme -I as assigning a theta role to its external argument regardless of its specific function gains support because as in (12), the –I-attached verbal complex together with –eykey gets along with the subject-oriented adverb ilpwule “on purpose” (but we will see below that the verbal complex with the particle –uyhay cannot do so). Incidentally, in Korean the same adverb ilpwule cannot modify the –eykey phrase, which means that it does not function, at least in syntax, as having an agent-like role.

   “Inho on purpose made Mina read the book.”
   Inho-Nom Mina-Dat deliberately book-Acc read-CAU/PAS-Pst-Dcl

   “Inho on purpose had Mina press his leg,”
   or “Inho on purpose had an experience of having his leg pressed by Mina,”
   but not “Inho was (adversely) affected by Mina pressing his leg on purpose.”

In this respect, adversative passives/experientials and direct passives in Korean are minimally differentiated from causatives, in that unlike in the latter, the embedded VoiceP in the former is not active but passive (see the similar proposal in Bruening and Tran 2015, Legate 2014, and Jo 2018), as follows

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7 In English, be passives such as (ia) imply that it is Mary who shot John deliberately. Meanwhile, get passives such as (ib) imply that it is John who deliberately acted the action of being shot, suggesting that their subject involves responsibility.

(i) a. John was shot by Mary on purpose.
   b. John got shot by Mary on purpose.

In this sense, it can be noted that get passives rather than be passives in English behave in a parallel fashion to adversative passives/experientials and direct passives in Korean.

8 To account for the impossibility of subject-oriented adverb modification inside the embedded VoiceP, we provisionally follow Kim (2008) who argues that unlike both VP and strong-phase VoiceP-selecting causatives as proposed in Pylkännen’s (2002), Korean causatives/experientials can embed weak-phase VoiceP. Though it is a constituent with an external argument, unlike strong VoiceP, weak one does not permit subject-oriented adverb modification. We suggest as in Kim (2008) that the difference in adverb modification stems from the different semantics of the selected head: weak Voice vs strong agentive Voice.
Thus, the matrix subject of adversative passives/experientials and the direct passives is assigned not Theme, but what Jackendoff (1990) and others [and also see Ritter and Rosen (1997) for the analysis of have in English] term Experiencer.

With this in mind, we now return to the animacy restriction in direct passives. What is noteworthy bearing on this restriction is that in causatives/experientials of Korean, the –eykey-marked Dative Causee NP is not allowed together with the Nominative Case (or Nom) marked inanimate Causer/Experiencer subject in causatives such as (14a) and experientials such as (14b). When the Causer/Experiencer subject is inanimate, the Causee is required to be Accusative Case (or Acc) marked, as in (14c).

(14) a. *Ku sihem-i Yengswu-eykey chayk-ul ilk-hi-ess-ta.¹
   the exam-Nom Yengswu-Dat book-Acc read-CAU-Pst-Dcl
   “The exam made Yengswyu read a book.”

      the tree-Nom Yengswu-Dat tree branch-Acc tear off-CAU/PAS-Pst-Dcl
      “The tree had Yengswu tear off the branches.”

   9 Some speakers may provide the following apparent counter examples where the Dative Causee argument is realized together with the inanimate Causer subject. But the speakers I consulted on these examples noted that they are not acceptable.

   (i) a. (*)Umsik-i Yengswu-eykey pay-lul pwul(u)-ly-ess-ta.
      food-Nom Yengswu-Dat stomach-Acc fill-CAU/PAS-Pst-Dcl
      “The food filled Yengswu’s stomach.”

      political arena-Nom Yengswu-Dat muddy water-Acc stain-CAU/PAS-Pst-Dcl
      “The political arena stained Yengswu with muddy water.”

      nuclear weapon-Nom America-Dat great burden-Acc bear-CAU-Pst-Dcl
      “The nuclear weapon loaded America with the great burden.”

10 The following example may constitute counterevidence against the ban on inanimate NPs as a subject of causative verbs:

      the rumor-Nom Yengswu-Dat wound-Acc wear-CAU/PAS-Pst-Dcl
      “The rumor had him get hurt.”

   The peculiarity of this example is that the verb stem ip-hi here is not construed as a morphosyntactically complex combination “wear + causative” but as a single verb corresponding to its English counterpart “inflict.”
Unlike in Korean, in Japanese, the animacy restriction does not hold. In other words, co-occurring with the \( -\text{eykey} \)-marked Dative Causee NP, the Nom-marked subject that is assigned a Causer/Experiencer role represents a sentient entity being (adversely) affected by the event denoted by the embedded VoiceP (Yeon 1991; Park 1994).

Note, by contrast, that when inanimate subject NPs involve lexically attributed mobility, the causatives with \( -\text{eykey} \) improve significantly, as follows:

\[
\begin{align*}
\text{a. } & \text{Isungyep-i} & \text{chi-n} & \text{phawul pol-i} & \text{simphan-\text{eykey}} \\
& \text{Lee Seung-Yuop-Nom} & \text{hit-Rel} & \text{foul ball-Nom} & \text{umpire-Dat} \\
& \text{ilkyek-ul} & \text{ip-\text{hi}-ess-ta.} & \text{injure-Acc} & \text{injict-CAU-Pst-Dcl} \\
& \text{“The foul ball that Lee Seung-Yuop hit inflicted a blow on the umpire.”} \\
\text{b. } & \text{Hwanguyuco-uy} & \text{kongkyek-i} & \text{Canghyensw-\text{eykey}} & \text{khu-n} & \text{swupi} \\
& \text{Hwang Uy-Jo-Gen} & \text{attack-Nom} & \text{Jang Hyun-Soo-Dat} & \text{huge} & \text{offensive} \\
& \text{pwutam-ul} & \text{ci-wu-ess-ta.} & \text{burden-Acc} & \text{put-CAU-Pst-Dcl} \\
& \text{“Hwang Uy-Jo’s attack placed a huge offensive burden on Jang Hyun-Soo.”} \\
\end{align*}
\]

The acceptability of the causatives with \( -\text{eykey} \) in (15a–b) is on the other side of the same coin vis-à-vis that of the passives with it in (16a–b), repeated below, where the subject is construed as denoting lexically attributed mobility:

\[
\begin{align*}
\text{a. } & \text{Can pyeng-i} & \text{kul-ul/\text{eykey}} & \text{koyloph-\text{hi}-ess-ta.} \\
& \text{constant disease-Nom} & \text{him-Acc/Dat} & \text{painful-CAU-Pst-Dcl} \\
& \text{“The constant disease made him painful.”} \\
\text{b. } & \text{Feudal south} & \text{Emperor leon-ju} & \text{Kido-je-ri} & \text{takif-
\text{hi}-ess-ta.} \\
& \text{Emperor’s south-extended-land} & \text{Emperor’s brother-extended-land} & \text{takif-\text{hi}-ess-ta.} \\
& \text{“The Emperor’s south-extended-land did not become Emperor’s brother-extended-land.”} \\
\end{align*}
\]

11 Unlike in Korean, in Japanese, the animacy restriction does not hold. In (i) below, Japanese allows an inanimate argument in the Nom-marked subject position, as long as it is interpreted as an affectee (Kuroda 1965; Hoshi 1991).

\[
\begin{align*}
\text{(i) } & \text{Sono biru-ga} & \text{doroboo-ni} & \text{doa-o} & \text{kowas-\text{are-ta}} \\
& \text{that building-Nom} & \text{thief-Dat} & \text{door-ACC} & \text{break-PAS-Pst} \\
& \text{“That building was affected by the thief’s breaking its door.” (Uda 1994: 77)} \\
\end{align*}
\]

We take it that unlike the experiential morpheme in Korean, the passive morpheme -(r)are in Japanese does not require a sentient expression as its external argument. Unlike the so-called possessive passives as in (i); however, indirect passives in Japanese do not allow inanimate expressions in subject positions:

\[
\begin{align*}
\text{(ii) } & \text{“Sono hon-ga} & \text{syuppansya-ni} & \text{betuno hon-o} & \text{syuppans\text{-}\text{are-ta}} \\
& \text{that book-Nom} & \text{publisher-Dat} & \text{different book-Acc} & \text{publish-PAS-Pst} \\
& \text{“That book was adversely affected by the publisher’s publishing a different book.” (Uda 1994: 69)} \\
\end{align*}
\]

Thus, the interpretative association or close relation of the Nom subject with the Acc-marked object makes a crucial distinction between possessive and indirect passives (Washio 1993; Yeon 2002, 2003), subjecting the passive morpheme -(r)are to two different selectional requirements. The latter type of passives denotes an affectee relation between the Nom-marked subject and the event described by the complement VoiceP, rather than a source or possession relation between them. Only in this type, the subject argument is subject to the animacy restriction at issue.
To the extent that (15a–b) and (16a–b) are fine, it stands to reason that there are two types of inanimate subjects that are or are not compatible with –eykey causatives/experientials/passives.

Most relevant to the animacy restriction in question is the fact that the particles –eykey and –ey uyhay are not always interchangeably used in direct passives. The following examples taken from Jo (2018) also make such a point:

As claimed by Lee (2002, 2003) and Jo (2018), –eykey phrases in Korean passives represent direct actor, whereas –ey uyhay phrases represent indirect actor. This contrast follows from the proposed idea that only the former are generated in the embedded [Spec, VoiceP], thus being directly involved in the event denoted by the embedded lexical verb as they serve as an external argument of the embedded lexical verb. (As will be argued below, however, the latter are generated in the matrix [Spec, VoiceP], thus being indirectly involved in such an event.)

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12 Jo (2018) claims that (17c) with the inanimate subject is acceptable with the –eykey phrase, though it sounds marginal to the author. As discussed in the text, the acceptability of this example indicates that the animacy restriction can be modulated by the directness with which the Nom-marked subject is affected by the Dat-marked NP in the event denoted by the embedded passive VoiceP.

13 Some speakers may provide the following apparent counterexamples which seem to be acceptable even though their passive subjects are not animate.
4 The syntactic derivation of morphological passives

The causative/experiential analysis of morphological passives here has two impending issues to address. One is the derivation of the Nom-marked subject NP. Since it is assigned a theta role (i.e., Causer/Experiencer) by the causative/experiential morpheme like -I, the Nom-marked subject NP in this construction is base generated in its surface position (or in the VP-internal subject position) in the way that other external argument NPs are. The second issue related to the first one is how to derive morphological passives from their causative/experiential counterparts. Closely relating to the second issue is the fact that Dative –eykey arguments in causatives lose argumenthood in both experientials/adversative passives and direct passives, thus behaving as an adjunct here.

The dropping of the –eykey particle from and the alternative Acc marking of the Causee NP provides clear evidence for the distinction between causatives and experientials/passives in regard to the grammatical status of Dative –eykey-marked NPs, as in (18):

   Inho-Nom Mina-Dat/Acc book-Acc read-CAU/PAS-Pst-Dcl
   “Inho made Mina read the book.”
   b. Inho-ka Mina-eykey/-*ul (caki) tali-lul nwul(u)-li-ess-ta.
   Inho-Nom Mina-Dat/-Acc self leg-Acc press-CAU/PAS-Pst-Dcl
   “Inho had Mina press his own leg.”
   cf. Yengi-ka ku kay-ey/-ul kapang-ul mwul-li-ess-ta.¹
   Yengi-Nom that dog-Dat/Acc bag-Acc bite-CAU/PAS-Pst-Dcl
   “Yengi made that dog bite the bag.” (causative)
   “Yengi had that dog bite the bag.” (experiential)
   Inho-Nom Mina-Dat/-Acc press-CAU/PAS-Pst-Dcl
   “Inho was pressed by Mina.”
   d. Ku ton-i sakikkwun-eykey ttut-ky-ess-ta
      that money-Nom longer eat
      “That money was plucked by the sharper.”
      that doll-Nom cat-Dat
      “That doll was torn off by the cat.”
      economy-Nom(money-Nom) small shop owner-Dat block-CAU/PAS-Pst-Dcl
      “The economy (source of money) was blocked by the small shop owner.”

In causatives such as (18a), the Causee can be Acc marked after dropping the Dative marker –eykey, but in both experientials and direct passives such as (18b–c), it cannot be.

Topicalization in (19) also renders compelling evidence for the differentiation between causatives and experientials/passives in regard to the grammatical status of Dative –eykey-marked NPs. In causatives such as (19a), the Causee can be topicalized after dropping the Dative marker –eykey, but in both experientials and direct passives such as (19b–c), it cannot be.

However, the first three examples do not involve normal passivization, but as will be discussed in Section 4, the passivization of the ditransitive verbs; For example, the passive verb mekhi- is not a passivization of mek- “eat” but a passivization of the ditransitive verb mek-i- “feed.” Likewise, the passives in (id–f) can be analyzed in a different way. Specifically, they can be analyzed on a par with the examples in (17a) and (17c). The Nom-marked inanimate subject is directly affected by the Dat-marked NP (aside from (if)), which improves on the acceptability of these examples.¹

¹ The sentence in (18c) is fine with ku kay Acc marked only when it is intended as causative. But with ku kay marked with –ey, the sentence can be construed either as causative or experiential.
The grammatical status of –eykey and its implications

    Mina-Dat-Top Inho-Nom book-Acc read-CAU/PAS-Pst-Dcl
    “Inho made Mina read the book.”

    Mina-Dat/-Top Inho-Nom self leg-Acc press-EXP/PAS-Pst-Dcl
    “Inho had Mina press his own leg.”

    Mina-Dat/-Top Inho-Nom press-EXP/PAS-Pst-Dcl
    “Inho was pressed by Mina.”

Additionally, the interpretation of the null argument as the Causee NP distinguishes experientials/passives from causatives. As Jo (2018) points out, the null Causee argument in the causatives such as (20a) is construed as a contextually salient entity, but that in experientials such as (20b) and passives such as (20c) can be construed as an implicit argument, since the implicit argument can be interpreted as a weak existential like those in English passives.

    Inho-Nom book-Acc read-CAU/PAS-Pst-Dcl
    “Inho made [the person given in the context] read the book.”

    Inho-Nom self leg-Acc press-CAU/PAS-Pst-Dcl
    “Inho had his own leg pressed by someone.”

    Inho-Nom press-CAU/PAS-Pst-Dcl
    “Inho was pressed by someone.”

Now a question is what change in grammatical function arises in the process from causatives to experientials and direct passives? As suggested earlier, on the analogy of Korean –eykey passives to English have passives, we suggest that the passive/passivizing morphology (PM) (i.e., the zero morpheme) is attached to the lexical verb phrase, forming the small clause complement VoiceP

\[ \text{PM} \] that the experiential morpheme selects as its complement, as in (21):

\[ \text{PM} \]

15 For the sake of presentation, we may have gone too far to claim that the passive morphology in Korean is null. In fact, the difference in form between the causative mek- ‘feed’ and the passive mek-hi ‘fed’ clearly shows that the passive morphology in Korean involves not null but overt exponent. Thus, in morphosyntactic formation the lexical verb produces the lexical causative or passive verb with the causative or the passive morphology. One thing most peculiar about the Korean causative/passive alternation is that in light of Pykännen’s (2002) generalization as follows, [V]oice and Cause [v] in Korean are generally bundled together rather than separate entities.

While Cause [v] and [V]oice are separate pieces in the universal inventory of functional heads, they can be grouped together into a morpheme in the lexicon of a particular language. In such a language, [V]oice and Cause [v] form a similar feature bundle as tense and agreement in languages which do not have a split INFL. [from Pykännen 2002:90]
Thus, for example, (21) represents the sentence in (22). The subject of the embedded extended verbal projection (small clause VoiceP\( _{\text{PAS}} \)) is “demoted” to take on an adjunct role, and the object of the lexical verb in it cannot be assigned Accusative but Nominative Case.¹⁶

(22) Totwuk-i [kyengchal-\( ^{\text{eykey}} \) ○ cap-PM]-hi-ess-ta.¹⁷

thief-Nom policeman-to catch-PAS-CAU/EXP-Pst-Dcl

“The thief was caught by a policeman/got himself caught by a policeman.”

To the extent that such a demotion takes place, the Korean experiential is assimilated in structure to the French reflexive causative that can denote a passive event, as in (23) (taken from Oshima 2006):

(23) Jean s’est fait sauver par un policier.

Jean Refl.Perf faire(p.p.) save by a police officer

“Jean made a police officer save him.” (reflexive causative) or

“Jean was saved by a police officer.” (passive)

In (23), \( ^{\text{faire}} \) “make” selects as its complement the VoiceP where only the embedded subject is demoted, but the embedded transitive verb remains to be active.

Note that the demotion of the embedded external argument in argument hood after passivization in the embedded small clause has a consequence on the process of merging the theta grids of the embedded lexical verb and the matrix causative/experiential morpheme. For example, the embedded transitive verb cap- “catch” has the theta grid: \(<\text{Agent, Theme}>\); the matrix causative/experiential morpheme has the theta grid: \(<\text{Causer/Experiencer, Caused/Experienced Event}>\). In the case of the causative use of the construction at hand, after the merging process the external argument of the embedded lexical verb takes over the \( \text{CAUSEE} \) role of the matrix causative/experiential morpheme, retaining the argument status and being realized with \(^{\text{–eykey}}\). In the case of the experiential use of the construction at hand, on the other hand, when the embedded extended verb phrase is passivized by adding the null PM to it, the external argument of the embedded lexical verb loses argument hood, thus taking over the adjunct role \( \text{as evidenced by the} \)

16 We assume that the object of lexical verbs here is assigned Nominative Case in the same fashion as the complement of transitive stative predicates is. Nominative Case on these NPs is valued in Agree relation with the higher T.
17 In (22), the gap signalized with ○ is interpretively associated with the Nom-marked subject, thus apparently assimilating direct passives to experentials. To the extent that this is right, the next question that arises is whether the gap is syntactically active.
contrast between (a) and (b–c) in (18)–(20)] but is realized with –eykey (retaining the inherently marked form of C/case in the causative counterpart). Meanwhile, the Theme complement NP of the embedded lexical verb in direct passive use as in (24) may end up being in a position where Acc Case cannot be assigned.

    Swuni-Nom puppy-Dat hand-Nom bite-EXP/PAS-Pst-Dcl
    “Swuni had the puppy bite her hand.”
    “Swuni was bitten in her hand by the puppy.”

The situation in the experiential (i.e., adversative passive) use of the construction at hand is different, since the Theme complement NP of the embedded lexical verb is assigned Acc Case by the verbal complex that results from the embedded lexical verb undergoing head movement to the matrix causative/experiential morpheme, thereby fulfilling Baker’s (1985) Government Transparency Corollary [in the similar fashion to its counterpart in the French reflexive causative in (23)].

Not –eykey, but –ey uyhay passives evade the subject animacy restriction, thanks to the particle’s derivational independence from the complement (VoiceP_{\text{PAS}}) of the causative/experiential affix. The –ey uyhay passives are derived directly from causative/experiential verbal affixes. In these cases, the passive morphology is attached to the verbal complex after the causative/experiential morpheme is attached, as in (25).

(25) Totwuk-i [kyengchal–ey uyhay] [cap-PM]-hi-PM]-ess-ta.¹⁸
    thief-Nom policeman-by catch-PAS-CAU/EXP-PAS-Pst-Dcl
    “The thief was caught by a policeman.”

(26)

Based on the proposed idea of attaching the null PM in structurally two different positions, we can make the following predictions on the use of –eykey or –ey uyhay passives. Note that the –eykey phrase in causatives is derived when the embedded lexical verb is transitive, thus having two internal arguments. By contrast, when the embedded lexical verb is intransitive, having one argument, this argument is always Acc

¹⁸ As will be argued below, when the matrix causative event is passivized, the embedded VoiceP selected is bound to be passive.
marked, as in (27a) and (27b). The connection between causatives and passives predicts that –eykey passives are not acceptable when the embedded lexical verb is intransitive, as in (28a) and (28b):¹⁹

(27)  
\[\begin{array}{lll}
& a. & \text{Cheli-ka emma-lul/*-eykey} \quad \text{nwup-hi-ess-ta.} \\
& & \text{Cheli-Nom mother-Acc/-Dat} \quad \text{lie.down-CAU-Pst-Dcl} \\
& & \text{“Cheli laid down his mother.”} \\
& b. & \text{Cheli-ka oli-lul/*-eykey} \quad \text{nal-li-ess-ta.} \\
& & \text{Cheli-Nom duck-Acc/-Dat} \quad \text{fly-CAU/PAS-Pst-Dcl} \\
& & \text{“Cheli flew a duck.”} \\
\end{array}\]

(28)  
\[\begin{array}{lll}
& a. & \text{Emma-ka Cheli-ey uyhay/*-eykey} \quad \text{nwup-hi-ess-ta.} \\
& & \text{mother-Nom Cheli-by/-Dat} \quad \text{lie.down-PAS-Pst-Dcl} \\
& & \text{“His mother was laid down by Cheli.”} \\
& b. & \text{Oli-ka Cheli-ey uyhay/*-eykey} \quad \text{nal-li-ess-ta.} \\
& & \text{duck-Nom Cheli-by/-Dat} \quad \text{fly-CAU-Pst-Dcl} \\
& & \text{“The duck was flown by Cheli.”} \\
\end{array}\]

Such examples as these render conclusive evidence that when the –eykey-marked Causee NP is available to causatives, it is carried over to their corresponding experientials/direct passives. Recall that the transfer of –eykey marking from causatives to experientials/direct passives is made because –eykey marking is driven by inherent C/case marking; it is simply retained in passivization. Otherwise, there is no chance of realizing it in experientials/direct passives. However, when the embedded lexical verb is intransitive, prior to passivization we first derive the resultant causative verbal complex by attaching the matrix causative morpheme to the embedded intransitive verb, in turn deriving the corresponding passive verb by attaching the PM to the matrix causative verbal complex. In other words, when the embedded lexical verb is intransitive, passivization only applies in the matrix clause after causative/experiential formation. That is why, as in (28a–b), only –ey uyhay passives are fine, as correctly predicted by our analysis.

(29)

Furthermore, the proposed idea of attaching the null PM, thus projecting the two Voice heads in structurally different places also predicts that the sentences such as (30) are acceptable where both –eykey and –ey uyhay phrases are realized. This prediction is borne out.

¹⁹ Some other representative examples of intransitives are in order below. As expected, they only allow Accusative, but not Dative, marking of the intransitive subjects after the process of causativization/transitivization:

(i) wul-"cry" → wul-li-ta  
(ii) nok-"melt" → nok-i-ta  
(iii) tot-"sprout/come out/develop" → tot-kwu-ta  
(iii) cam-"sink" → cam-kwu-ta
(30) Hwanca-uy phal-i [uy-sa-\textit{ey uyhay}] [khanhosa-\textit{eykey}] cap-PM-[hi]-PM-ess-ta.
patient-Gen arm-Nom doctor-by nurse-by hold-PAS-CAU-PAS-Pst-Dcl
“The doctor got the patient’s arms held by the nurse.”

As in (30), the two instances of the PM passivize the embedded lexical verb phrase and the matrix causative/experiential verbal complex, respectively.

As noted earlier, the two types of particle are not always interchangeably used in passives, as repeated below from (17):

Swuni-Nom mosquito-\{Dat/by\} bite-EXP/PAS-Pst-Dcl
“Swuni was bitten by a mosquito.”

spy-Nom president-\{\#Dat/by\} catch-EXP/PAS-Pst-Dcl
“The spy was caught by the president.”

wallpaper-Nom dad-\{Dat/by\} tear-off-EXP/PAS-Pst-decl
“The wallpaper was torn off by dad.”

As claimed by Lee (2002, 2003) and Jo (2018), \textit{–eykey} phrases represent direct actor, whereas \textit{–ey uyhay} phrases represent indirect actor. This contrast follows from the proposed idea that two types of phrases are generated in the hierarchically different loci of Voice. The former are generated in the embedded [Spec, VoiceP], thus being directly involved in the event denoted by the embedded lexical verb phrase. On the other hand, the latter are generated in the matrix [Spec, VoiceP], thus being indirectly involved in the event denoted by the embedded lexical verb phrase.

In addition, \textit{–eykey} and \textit{–ey uyhay} phrases behave in different ways in syntax. Recall that the subject-oriented adverb \textit{ilpwule} “on purpose” can occur with the \textit{–eykey} phrase but not with the \textit{–ey uyhay} phrase, as in (32a–b), which are taken from Choi (2018):

Yengmi-Nom Chelswu-Dat on purpose catch-PM-CAU/EXP-Pst-Dcl
“Yengmi was on purpose caught by Chelswu.”

b. *Yengmi-ka Chelswu-\textit{ey uyhay} \textit{ilpwule} cap-hy-ess-ta.
Yengmi-Nom Chelswu-by on purpose catch-CAU/EXP-PM-Pst-Dcl
“Yengmi was on purpose caught by Chelswu.” (intended)

This contrast is ascribed to the fact that the Nom-marked subject in (32a) is base generated, having an Experiencer role, but that in (32b) is derived.

Interlocking with this contrast is the asymmetry between \textit{–eykey} and \textit{–ey uyhay} passives in terms of the Acc marking of the Theme argument, as in (33) taken from Choi (2018):

Yengmi-Nom Chelswu-Dat hand-Acc catch-PM-CAU/EXP-Pst-Dcl
“Yengmi had Chelswu hold her hand.”

Yengmi-Nom Chelswu-by hand-Acc catch-CAU/EXP-PM-Pst-Dcl
“(int.) Yengmi had Chelswu hold her hand.”
Unlike –eykey passives, –ey uyhay passives cannot have the Theme argument of the lexical verb being Acc marked. In the proposed analysis, this means that the matrix passivization makes the embedded lexical verb cap- “hold” unable to assign Acc Case to the following Theme NP, in accordance with Burzio’s (1981/1986) generalization.² Alternatively, –ey uyhay is disallowed in causatives because there would be two causing events for a single main event.

Still directly relating to two types of particle phrase is the Case alternation of the lexical verb-supporting –ci morpheme before the negation in long-form negation of Korean. In –ey uyhay passives, it is either Nom or Acc marked; but in –eykey passives, it is only Acc marked, as in (34) taken from Choi (2018):

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yengmi-Nom</td>
<td>Chelswu-Dat</td>
<td>still</td>
<td>catch-PM-CAU-Nm-Acc/-Nom</td>
<td>not-Pst-Dcl</td>
</tr>
<tr>
<td></td>
<td></td>
<td>“Yengmi has not been caught by Chelwu yet.”</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This contrast also follows from the hierarchically different places of passivization. In –ey uyhay passives, passivization occurs in the matrix domain, thus the verbal complex being construed as stative. In this case, Nom/Acc Case alternation is allowed on the affix –ci. By contrast, –eykey passives, passivization occurs in the embedded domain, thus the verbal complex being construed as eventive. In this case, Case alternation is not allowed, but only Acc marking is available to the affix –ci.

5 Passivization of ditransitive verbs

Choi (2018) notes that there are some counterexamples with the animacy restriction with –eykey passives. The cases at point involve verbs such as poi- “be shown” and tulli- “be delivered/be told,” as follows:

<table>
<thead>
<tr>
<th>(35)</th>
<th>Yenghwa</th>
<th>cangmyen-i</th>
<th>Cheli-eykey</th>
<th>po-y-ess-ta.</th>
</tr>
</thead>
<tbody>
<tr>
<td>movie</td>
<td>scene-Nom</td>
<td>Cheli-Dat</td>
<td>see-CAU-PM-Pst-Dcl</td>
<td>“The movie scene was shown to Cheli.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(36)</th>
<th>Khullaysik</th>
<th>umak</th>
<th>soli-ka</th>
<th>Cheli-eykey</th>
<th>tul-ly-ess-ta.</th>
</tr>
</thead>
<tbody>
<tr>
<td>classic</td>
<td>music</td>
<td>tune-Nom</td>
<td>Cheli-Dat</td>
<td>hear-CAU-PM-Pst-Dcl</td>
<td>“The classic music (sound) was delivered to Cheli.”</td>
</tr>
</tbody>
</table>

Choi argues that these verbs are used as middle/inchoative verbs rather than as passive verbs. However, middle verbs tend to denote a generic situation, while the examples in (35) and (36) describe a nongeneric, episodic situation. Thus, we take it that the two verbs in question can be used as a direct passive verb [in addition to being used as a middle verb in an appropriate context, as argued by Choi (2018)].

How can we instead account for the acceptability of (35) and (36), which apparently violates the animacy restriction with –eykey passives? We argue that –eykey passives with poi- and tulli- are derived in a different way from the general type of –eykey passives. Specifically, the two verbs poi- “show” and tulli- “deliver” are first derived by ditransiting the transitive verbs po- “see” and tut- “hear” with the addition of

² This means that the option of combining the matrix passive voice with the embedded active voice is ruled out due to Burzio’s generalization.
the causativizing/transitiving morpheme \textit{-I}.\textsuperscript{21} After that, the passive morpheme is attached to the resultant ditransitive verb. These steps of derivation are supported by the following facts. First, unlike those in the general type of passives, the \textit{-eykey} NPs with \textit{poi}- and \textit{tulli} - are not an adjunct but an argument as part of the argument structure of the resulting ditransitive verb. Thus, unlike that in (19c), the \textit{-eykey}-dropping NPs with \textit{poi} - and \textit{tulli} - can be topicalized (cf. Choi 2018), as follows:\textsuperscript{22}

\begin{tabular}{llll}
(37) & Cheli-(\textit{eykey})-nun & yenghwa & cangmyen-i po-\textit{y}-ess-ta. \\
    & Cheli-(Dat)-Top & movie & see-CAU-PM-Pst-Dcl \\
    & & & “The movie scene was shown to Cheli.”
\end{tabular}

\begin{tabular}{llll}
(38) & Cheli-(\textit{eykey})-nun & khullaysik umak & soli-ka tul-\textit{ly}-ess-ta. \\
    & Cheli-(Dat)-Top & classic & hear-CAU-PM-Pst-Dcl \\
    & & music & “The classic music (sound) was delivered to Cheli.”
\end{tabular}

Second, since these two verbs at issue do not involve passivization with the embedded verb but with the matrix ditransitive morpheme, the \textit{-ey uyhay} “by”-marked NP can be added, without affecting the presence of the \textit{-eykey}-marked NP, as follows:

\begin{tabular}{llll}
(39) & Yengi-\textit{ey uyhay} & Cheli-\textit{eykey} & po-\textit{y}-ess-ta. \\
    & movie & scene-Nom & see-CAU-PM-Pst-Dcl \\
    & Yengi-by & Cheli-to & “The movie scene was shown to Cheli by Yengi.”
\end{tabular}

\begin{tabular}{llll}
(40) & Khullaysik umak & soli-ka & Yengi-\textit{ey uyhay} Cheli-\textit{eykey} tul-\textit{ly}-ess-ta. \\
    & classic & music & hear-CAU-PM-Pst-Dcl \\
    & tune-Nom & Yengi-by & “The classic music (sound) was delivered to Cheli by Yengi.”
\end{tabular}

These aspects of the \textit{-eykey}-marked NPs with two verbs in question point to the fact that they behave as a Goal argument like those in the ditransitive verb construction.

\textsuperscript{21} The Standard Korean Language Dictionary lists \textit{tulli(-ta)} “deliver” as a causative/ditransitive verb, with the following attestation in the corpus.

\begin{tabular}{llllll}
(39) Ait-\textit{tul eykey} & caymiiss-nun & iyaki-lul & tul-\textit{ly}-ess-te-ni & nemwu & cohaha-nta. \\
    & Child-PL-to & interesting-Rel & story-Acc & hear-CAU-Pst-Retr & \textit{when} a lot like-Dcl \\
    & & & & “The children like a lot the interesting story we have just delivered to them.”
\end{tabular}

\textsuperscript{22} In addition to the two verbs at issue in the text, Choi also includes \textit{mekhi} “be fed,” as in (i):

\begin{tabular}{llllllll}
(i) & Kwal-i & pelley-\textit{eykey} & mek-hy-ess-ney-yo. \\
    & fruit-Nom & worm-Dat & eat-CAU-Pst-Mir-Informal \textit{(Mir = Mirative)} \\
    & “Fruits were fed to the worms.”
\end{tabular}

We keep up with the thesis that the passive form in (i) is derived from the ditransitive verb \textit{mek-i}. “feed.” There is, however, one difference between \textit{mekhi} , on the one hand, and \textit{poi} - and \textit{tulli} , on the other, in that unlike those with the latter, the \textit{-eykey}-dropping NP with the former is degraded when it undergoes Topicalization, as follows:

\begin{tabular}{llllllll}
(ii) & Pelley?(-\textit{eykey})-nun & kwail-i & mek-hy-ess-ney-yo. \\
    & worm-(Dat)-Top & fruit-Nom & eat-CAU-Pst-Mir-Informal \\
    & “Fruits were fed to the worms.”
\end{tabular}
6 Conclusion

In sum, morphological –eykey direct passives derive from their causative/experiential counterparts. The former and the latter are apparently of the same form, but the null PM on the transitive lexical verb phrase in the small clause (VoiceP) complement of the matrix causative morpheme converts the Dative –eykey-marked Causee from an argument to an adjunct, besides stripping the lexical transitive verb within it of the ability to assign Accusative Case. The "mobility" restriction on the subject NP with the –eykey phrase in direct passives is attributed to the fact that the Nom-marked subject NP is required to take on the Causer/Experiencer role in this type of passives. By contrast, morphological –ey uyhay direct passives derive from the null PM not on the embedded lexical transitive verb phrase but outside the matrix causative or transiting verb complex, thus the matrix subject NP being realized with the particle –ey uyhay rather than –eykey in this type of passives.

References

Inoue, Kazuko. 1995. “Causative have and experiential have.” English Linguistics 12: 73–95.
### Appendix: the list of 100 verbs provided by Yang (1979) [taken from Oshima (2006)]

<table>
<thead>
<tr>
<th>Stem verb</th>
<th>Suffixed form</th>
<th>PassiveCausative</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) pota “see”</td>
<td>poita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(2) ssata “excrete”</td>
<td>ssaita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(3) ketta “roll up, fold up”</td>
<td>kethita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(4) mekta “eat”</td>
<td>mekhitamekita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(5) palpta “step on”</td>
<td>palphita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(6) epta “carry, take x on one’s back”</td>
<td>ephita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(7) ilkta “read”</td>
<td>ikhita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(8) capta “catch, seize”</td>
<td>caphita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(9) ciphta “lean on(a cane, etc.)”</td>
<td>ciphita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(10) ccikta “print”</td>
<td>ccikhita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(11) kalta “what, sharpen”</td>
<td>kallita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(12) kalta “plow, cultivate”</td>
<td>kallita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(13) kkulta “pull, draw”</td>
<td>kkullita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(14) nwuluta “press”</td>
<td>nwullita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(15) talta “hang, attach”</td>
<td>tallita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(16) tulta “lift up”</td>
<td>tullita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(17) ttalwuta “follow, go after”</td>
<td>ttallita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(18) mwuluta “bite, hold x in one’s mouth”</td>
<td>nwullita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(19) puluta “call, sing”</td>
<td>pullita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(20) pulta “blow”</td>
<td>pullita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(21) ppalta “wash(clothes)”</td>
<td>ppallita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(22) sitta “load”</td>
<td>sillita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(23) thelta “shake off, beat off”</td>
<td>thellita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(24) thuulta “twist”</td>
<td>thullita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(25) phulta “solve, undo”</td>
<td>phullita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(26) helta “break, destroy”</td>
<td>hellita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(27) kamta “wind x(round y)”</td>
<td>kamkita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(28) kamta “wash(hair)”</td>
<td>kamkita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(29) kkakhta “cut, shave”</td>
<td>kkakkita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(30) takkta “wipe, polish”</td>
<td>takkita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(31) mwukkta “bind, tie up”</td>
<td>nwukkita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(32) pista “comb”</td>
<td>piskita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(33) ssista “wash”</td>
<td>ssista</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(34) anta “hold, embrace”</td>
<td>ankita</td>
<td>✓ ✓</td>
</tr>
<tr>
<td>(35) ssahta “pile up, stack”</td>
<td>ssahtita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(36) thuta “open, break x open”</td>
<td>thuita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(37) phata “dig, carve”</td>
<td>phaita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(38) kkocta “stick in, stab”</td>
<td>kkochita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(39) tatta “shut, close”</td>
<td>tathita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(40) tephta “cover”</td>
<td>tephtita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(41) twiciphta “reverse, turn inside out”</td>
<td>twiciphita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(42) maycta “tie”</td>
<td>maychita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(43) Mwutta “bury”</td>
<td>mwuthita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(44) encta “put, lay”</td>
<td>enchita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(45) icta “forget”</td>
<td>ichita</td>
<td>✓ ?</td>
</tr>
<tr>
<td>(46)</td>
<td>cepta “fold”</td>
<td>cephita</td>
</tr>
<tr>
<td>(47)</td>
<td>ccikta “stamp”</td>
<td>cckihita</td>
</tr>
<tr>
<td>(48)</td>
<td>ccikta “hack, cut”</td>
<td>cckihita</td>
</tr>
<tr>
<td>(49)</td>
<td>ccikta “photograph, shoot”</td>
<td>cckihita</td>
</tr>
<tr>
<td>(50)</td>
<td>kaluta “divide, split”</td>
<td>kallita</td>
</tr>
<tr>
<td>(51)</td>
<td>kelta “hang, suspend”</td>
<td>kellita</td>
</tr>
<tr>
<td>(52)</td>
<td>malta “roll”</td>
<td>mallita</td>
</tr>
<tr>
<td>(53)</td>
<td>(may)alta “hang, suspend”</td>
<td>(may)talita</td>
</tr>
<tr>
<td>(54)</td>
<td>milta “push, shove”</td>
<td>milita</td>
</tr>
<tr>
<td>(55)</td>
<td>Yelta “open”</td>
<td>yellita</td>
</tr>
<tr>
<td>(56)</td>
<td>huntultita “shake, wave”</td>
<td>huntullita</td>
</tr>
<tr>
<td>(57)</td>
<td>kkunhita “cut, sever”</td>
<td>kkunhita</td>
</tr>
<tr>
<td>(58)</td>
<td>nakkta “catch(a fish, etc.), entrap”</td>
<td>nakkita</td>
</tr>
<tr>
<td>(59)</td>
<td>ttutta “pluck, tear off”</td>
<td>ttutkita</td>
</tr>
<tr>
<td>(60)</td>
<td>sekkta “mix”</td>
<td>sekkita</td>
</tr>
<tr>
<td>(61)</td>
<td>nohta “put, place”</td>
<td>nohita</td>
</tr>
<tr>
<td>(62)</td>
<td>ssuta “use”</td>
<td>ssuita</td>
</tr>
<tr>
<td>(63)</td>
<td>makta “block up”</td>
<td>makhita</td>
</tr>
<tr>
<td>(64)</td>
<td>kalta “replace, change”</td>
<td>callita</td>
</tr>
<tr>
<td>(65)</td>
<td>tutta “hear, listen to”</td>
<td>tullita</td>
</tr>
<tr>
<td>(66)</td>
<td>pelta “earn, gain”</td>
<td>pelita</td>
</tr>
<tr>
<td>(67)</td>
<td>caluta “cut, sever”</td>
<td>callita</td>
</tr>
<tr>
<td>(68)</td>
<td>thelta “rob”</td>
<td>thellita</td>
</tr>
<tr>
<td>(69)</td>
<td>kkekktata “break, bend, fold”</td>
<td>kkekktita</td>
</tr>
<tr>
<td>(70)</td>
<td>(twulle)ssata “wrap”</td>
<td>(twulle)ssaita</td>
</tr>
<tr>
<td>(71)</td>
<td>mouta “collect”</td>
<td>moita</td>
</tr>
<tr>
<td>(72)</td>
<td>chata “kick”</td>
<td>chaita</td>
</tr>
<tr>
<td>(73)</td>
<td>tulpokkta “bully, nag”</td>
<td>tulpokkita</td>
</tr>
<tr>
<td>(74)</td>
<td>kulkta “scratch”</td>
<td>kulkhita</td>
</tr>
<tr>
<td>(75)</td>
<td>pakta “knock in, drive in”</td>
<td>pakhita</td>
</tr>
<tr>
<td>(76)</td>
<td>ppopota “pull out, draw out”</td>
<td>ppophita</td>
</tr>
<tr>
<td>(77)</td>
<td>(son)kkoppta “count on one’s fingers, regard x as y”</td>
<td>(son)kkophita</td>
</tr>
<tr>
<td>(78)</td>
<td>ppetta “spread, extend”</td>
<td>ppetthita</td>
</tr>
<tr>
<td>(79)</td>
<td>ppayasta “deprive”</td>
<td>ppayaskita</td>
</tr>
<tr>
<td>(80)</td>
<td>ccochta “chase, run after”</td>
<td>ccocchita</td>
</tr>
<tr>
<td>(81)</td>
<td>cciccta “tear, rip”</td>
<td>ccickta</td>
</tr>
<tr>
<td>(82)</td>
<td>nwuta “excrete”</td>
<td>nwuita</td>
</tr>
<tr>
<td>(83)</td>
<td>ipta “put on, wear(clothes)”</td>
<td>iphita</td>
</tr>
<tr>
<td>(84)</td>
<td>mwulta “pay(a fine, etc.)”</td>
<td>mwullita</td>
</tr>
<tr>
<td>(85)</td>
<td>alta “know”</td>
<td>allita</td>
</tr>
<tr>
<td>(86)</td>
<td>nemta “go over, pass”</td>
<td>nemkita</td>
</tr>
<tr>
<td>(87)</td>
<td>mathhta “keep, take charge of”</td>
<td>mathkita</td>
</tr>
<tr>
<td>(88)</td>
<td>pesta “take off(clothes), strip oneself of”</td>
<td>peskita</td>
</tr>
<tr>
<td>(89)</td>
<td>ppumuta “blow off, spout”</td>
<td>ppumkita</td>
</tr>
<tr>
<td>(90)</td>
<td>sinta “put on(shoes, etc.)”</td>
<td>sinkita</td>
</tr>
<tr>
<td>(91)</td>
<td>phumuta “hold, embrace”</td>
<td>phumkita</td>
</tr>
<tr>
<td>(92)</td>
<td>kkita “put on(a ring, etc.), fix”</td>
<td>kkwuta</td>
</tr>
<tr>
<td>(93)</td>
<td>meyta “carry x on the shoulder”</td>
<td>meywuta</td>
</tr>
<tr>
<td>(94)</td>
<td>ssuta “write”</td>
<td>ssuywuta</td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>Chinese</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>95</td>
<td>ssuta “put on (a hat, etc.)”</td>
<td>ssuywuta</td>
</tr>
<tr>
<td>96</td>
<td>cita “carry x on one’s back”</td>
<td>ciwuta</td>
</tr>
<tr>
<td>97</td>
<td>chata “wear (a belt, a watch, etc.), carry (a sword, etc.)”</td>
<td>chaywuta</td>
</tr>
<tr>
<td>98</td>
<td>chita “tie (ankle bands, etc.)”</td>
<td>chiwuta</td>
</tr>
<tr>
<td>99</td>
<td>thata “ride, take (a train, etc.)”</td>
<td>thaywuta</td>
</tr>
<tr>
<td>100</td>
<td>chita “take (an exam, etc.)”</td>
<td>chilwuta</td>
</tr>
</tbody>
</table>