How do Koreans break and cut things?:
A cognitive-semantics approach to BREAK predicates and CUT predicates in Korean*

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Kwon, Iksoo. 2016. How do Koreans break and cut things?: A cognitive-semantics approach to BREAK predicates and CUT predicates in Korean. Linguistic Research 33(1), 65-94. The aim of this paper is to explore the semantic properties and distributions of the various predicates involving cutting and breaking in Korean. I show that both CUT and BREAK predicates are sensitive to the characteristics of the theme entity. CUT predicates are sensitive to the theme’s texture and shape, to the prototypical zone of separation, and to its semantic domain. The BREAK predicates are sensitive to the theme’s texture and shape and to whether it is a functional artifact. In terms of morphosyntax, the CUT and BREAK predicates in Korean are lexically transitive; it is possible to express intransitive and/or inchoative semantics by using a passive marker or the anticausative marker. In the agent-focused constructions, i.e., actives, the BREAK verbs may be used with or without the causative morpheme -ttuli- (The CUT verbs are not normally marked for causativity). In the theme-focused constructions, i.e., passives and middles, either the anticausative morpheme -eci- or one of the passive morphemes must be used; the passive markers may only be used with CUT verbs, while the anticausative marker may be used with either. Some of the breaking predicates contain the completive auxiliary nay-, which overtly encodes that an action has been completed – in this case, that complete separation has occurred. Some of the other predicates entail that some particular result state, i.e. some particular type of separation, has occurred. (Hankuk University of Foreign Studies)

Keywords break/cut predicates, Korean, morphosyntactic properties, semantic properties, cognitive semantics

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1. Overview

The primary experiences that people have with physical objects are shared among cultures; they can include activities like eating something edible, seeing or watching something, touching something, and manipulating something. The actions of cutting and breaking are among the ways objects can be manipulated, which humankind has totally been relying on.

Guerssel et al. (1985) classify verbs that encode separation in the material integrity of objects into two classes, **CUT** predicates and **BREAK** predicates, based on their meaning. Following this pioneering work on verbs of separation, numerous scholars have continued to pursue answers to questions such as how universally the classification holds crosslinguistically and what specific features are relevant to the classification in different languages. This paper aims to contribute to this body of cross-linguistic research on the linguistic representations of the cutting and breaking scenes by investigating how speakers of Korean conceptualize the target actions involved in the various cutting and breaking verbs. In the course of this investigation, I will provide an exhaustive list of **CUT** and **BREAK** in Korean, categorize each type into subcategories, and discuss the significance of the parameters used for categorization.

Predicates of separation entail that a (prototypically intentional) agent uses an instrument and exerts some force on an entity, which is the theme, so that the theme undergoes a change in its original state or shape. The two main subtypes of separation predicate are exemplified in English in the utterances in (1) and (2).

(1) John cut the bread into two pieces with a knife.
(2) John broke the window with a hammer.

The utterance in (1) indicates that John (an agent) intentionally used a knife (an instrument), and exerted force on the bread (a theme), and as a result, the bread was no longer in its original state, but was changed from a single entity into two smaller entities. The utterance in (2) indicates that John (an agent) intentionally used a hammer (an instrument) and exerted force on a window (a theme), and as a result, the window was no longer in its original state, but was changed from a single unit into many smaller pieces. A separation event inherently involves transitivity, in that
it entails that the agent’s intentional action affects the state or the shape of the theme. It is crucial to understand the number of participants and the force-dynamic relations among them in the construal of separation predicates.

The two kinds of predicates differ, however, in that verbs of cutting lexicalize the instrument used or the manner in which the action is performed, whereas verbs of breaking lexicalize the nature of the affected object or the type of change it undergoes (Essegbey 2007: 231; Levin and Rappaport Hovav 1995). There are also syntactic differences between the two categories in English, in that CUT verbs are unergatives, i.e., transitives that antipassivize and undergo the conative alternation (*John cut the bread* versus *John cut at the bread*), whereas BREAK verbs are unaccusatives, i.e., transitives that anticausativize and participate in the causative/inchoative alternation (*John broke the window* versus *The window broke*) (Essegbey 2007: 231).

Korean is also capable of expressing these distinct kinds of separation. Similarly, Korean expresses the concept of separation using a variety of lexical items, depending on how predictable the location of separation is for a given object (Majid, Bowerman, et al. 2007: 145), the properties of the object, the properties of the instrument, and whether an actual state change is entailed or not. According to Majid, Bowerman, et al. (2007, cited in Taylor 2007: 332), the most important feature that distinguishes CUT and BREAK predicates from each other is whether the locus of separation of the affected entity is predictable or unpredictable. Cutting events involve a relatively high degree of predictability, whereas events of breaking involve greater uncertainty as to the locus of separation (Narasimhan 2007: 196). I believe that this primary axis of distinction between the cutting and breaking predicates holds for Korean. In Korean, both the CUT verb stems and the BREAK verb stems are lexically transitive, and therefore other grammatical elements, such as an anticausative marker or (for CUT verbs) a passive marker, are needed to express an inchoative interpretation.

This paper also reports that which CUT predicate can be used is determined in part by whether the theme object is erect (for discussion of non-prototypical cases, see Section 3.2); this distinction is not attested in any other language. Although both *calu*- and *pey*- are verb stems of the CUT type, we can see clearly the difference in their interpretations:
(3) a. mokswu-ka tokki-lo namwu-lul call-ass-ta
   carpenter-Nom axe-Instr wood-Acc cut-Ant-Decl
   ‘The carpenter chopped the wood in two.’

b. mokswu-ka tokki-lo namwu-lul pey-ess-ta
   carpenter-Nom axe-Instr wood-Acc cut-Ant-Decl
   ‘The carpenter chopped down the tree with an axe.’ Or ‘The carpenter chopped into the tree with an axe.’

Calu- is a general verb that can be used to describe any kind cutting event, while pey- is used only when the theme object is standing vertically erect. (Namwu is a basic-level word that can refer either to a tree or to logs). Thus, the interpretation that can be obtained for (3a) is different from that for (3b).

Although Korean has been extensively studied, its rich vocabulary relating to the concept of separation has not received much attention, especially within cognitive-semantics (with the exception of Jeon 2002). The goal of this study is to provide a systematic account of the semantics of Korean separation predicates, addressing the following specific research questions:

- What are the subcategories within the CUT and BREAK categories of predicates in Korean?
- What are the syntactic and semantic differences and similarities between the various verbs that encode cutting and breaking events?
- Which semantic parameters determine the choice between the various verbs of cutting and breaking?
- Are the semantic parameters that distinguish among the various cutting and breaking verbs in Korean the same ones that are relevant for distinguishing cutting and breaking verbs in other languages? Are there any additional parameters that determine the choice of verbs?

Abbreviations

Acc: Accusative; Adv: Adverb; Advs: Adversative; Ant: Anteriority; Anti.Caus: Anti causative; Asp: Aspect; Caus: Causative; Conn: Conneetive; Decl: Declarative; Dur: Durative; Imper: Imperative; Imperf: Imperfective; Instr: Instrument; Loc: Locative; Nmlzr: Nominalizer; Nom: Nominative; Pass: Passive; Pl: Plural; Rltvzr: Relativizer; S.Ending: Sentential ending; Tns: Tense; V: Verb

1 The two verbs also differ in that calu- is used to profile the resulting from the separation event, while pey- is used to profile the on-going phase of the separation event (Jeon 2002).
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- What conceptual structures are evoked by the various separation predicates in Korean?

The data used in this study were collected from multiple sources including corpora, websites, and native speaker intuitions (including those of the author).

2. The morphosyntax of the CUT/BREAK constructions

Korean is an agglutinative language; sentence constituents such as verbal complexes are generally formed from a stem and various affixes including (in the case of verbal complexes) tense, aspect, modality, and evidentiality markers (Kwon 2012; Lee 1991). The default word order is subject-object-verb. However, case markers enable a fair amount of flexibility in word order, and the subject is frequently omitted when it has already been mentioned in the discourse context.

This section analyzes cutting and breaking events and their linguistic encodings in Korean with reference to the following issues. First, I examine the argument structures of the predicates that encode cutting and breaking events in Korean, focusing on their manifestations in active-voice constructions. Analyzing how the underlying conceptual structures of the cutting and breaking predicates in Korean match up with form in constructions is also important. In particular, I discuss how frame elements are matched to syntactic roles in the active, passive, and middle constructions, focusing on the use of the passive and anticausative markers. Lastly, I discuss how the choice of verbs is conditioned by whether the speaker wishes to specify a particular result state.

2.1 Cutting and breaking in the active voice

The active-voice construction used with CUT and BREAK predicates in Korean can be schematically represented as in (4). It requires that there be at least two participants, and there may be a third optional participant. The first noun $N_1$, which is marked with the nominative marker -i or -ka, is bound to the semantic role agent; $N_2$, marked with the accusative marker -ul or -lul, is bound to the role of theme. $N_3$ is bound to the instrument used by the agent to perform the action of separation. At
the end is the verbal complex, with the predicate of separation followed by a
tense/aspect marker and a sentential ending.

(4) Active:

\[ N_1\text{-Nom } N_2\text{-Acc } (N_3\text{-Instr}) V\text{-Tns/Asp-S.End} \]

Note that the instrument constituent is an optional element in the constructional
valence. The specific predicate used may itself encode that a particular instrument is
being used. In other cases, if no instrument is named nor entailed by the predicate,
the utterance entails that the speaker herself is doing the separating action using
some part of her body, generally her hands. This construction is instantiated in the
utterance in (5).

(1) Chelswu-ka koki-lul khal-lo call-ass-ta

\[ \text{Chelswu-Nom meat-Acc knife-Instr cut-Ant-Decl} \]

‘Chelswu cut the meat with a knife.’

The passive, middle, and causative constructions in Korean have an additional overt
morpheme in all three cases.

2.2 The passive and middle voices in Korean

While the active-voice use of predicates of separation described in Section 2.1
applies equally to both \textit{CUT} and \textit{BREAK} predicates, there are differences in how the
two types interact with passive and middle constructions. There are two ways of
passivizing the \textit{CUT}-type predicates. One is to use one of the morphemes in the
passive grammatical paradigm (called \textit{phitong}): \textit{-i-}, \textit{-hi-}, \textit{-ki-}, \textit{-li-}, \textit{-li-}, \textit{-kwu-}, or
\textit{-chwu-}. The other is to use the anticausative marker \textit{-eci-} to intransitivize the

\footnote{For instance, \textit{oli-} indicates that scissors are involved, even they are not overtly mentioned
(Instrument lexicalization is discussed in detail in Section 3.3).}

\footnote{The choice of passive morpheme is morphologically conditioned.}

\footnote{The author understands that some scholars (Lim 2015 \textit{inter alia}) call \textit{-eci-} an auxiliary verb
because they focus mainly on its syntactic distribution, not on its function. Since this paper
focuses more on its functional and morphosyntactic influence on the constructional valency, the
current label ‘anticausative marker’ will suffice for discussions in this paper.}
argument structure, which would otherwise be transitive. When either a passive morpheme or the anticausative marker is included in the verbal complex, the resulting construct is passive, as in the examples in (6a) and (6b).

(6) a. Chelswu-eyuyhay koki-ka (?khal-lo) call-li-ess-ta  
Chelswu-by meat-Nom knife-Instr cut-Pass-Ant-Decl  
‘The meat was cut by Chelswu.’

b. Chelswu-eyuyhay koki-ka (?khal-lo) call-eci-ess-ta  
Chelswu-by meat-Nom knife-Instr cut-AntiCaus-Ant-Decl  
‘The meat was cut by Chelswu.’

This functional overlap between passive and anticausative has been noted in other languages; as Bohnemeyer (2007:160-161) points out, the semantics of the passive marker can be difficult to distinguish from the inchoative semantics of the anticausativized verbal complex.

A schematic structure for the passive construction with an expressed agent is given in (7).

(7) [The Passive-Voice Syntactic Construction with Overt Agent]  
N₁-by N₂-Nom V-{Pass|Anti.Caus}-Tns/Asp-S.End

Note that the semantic role instrument does not tend to be filled when there is an expressed agent, N₁. If there is no N₁, there is more likely to be an instrument, as in the utterance in (8).

(8) khal-lo koki-ka call-li/eci-ess-ta  
knife-Instr meat-Nom calu-Pass/AntiCaus-Ant-Decl  
‘The meat was cut with a knife.’

A schematic structure for this type of passive construction is given in (8).

(9) [The Passive-Voice Syntactic Construction without Overt Agent]  
N₃-Instr N₂-Nom V-{Pass|AntiCaus}-Tns/Asp-S.End
In general, however, most Korean speakers avoid starting utterances with a non-sentient subject.

On the other hand, the passive morphemes are not compatible with the BREAK type predicates. Only the anticausative marker -(e)ci- can be used to passivize the BREAK predicate, as shown in the examples in (10) and (11).

(10) Chelswu-ka yuli-khep-ul kkay-ess-ta
    Chelswu-Nom glass-cup-Acc break-Ant-Decl
    ‘Chelswu broke the glass.’

(11) a. Chelswu-eyuyhay yuli-khep-i kkay-ci-ess-ta
    Chelswu-by glass-cup-Nom break-AntiCaus-Decl
    ‘The glass was broken by Chelswu.’

  b. *Chelswu-eyuyhay yuli-khep-i kkay-i-ess-ta
     Chelswu-by glass-cup-Nom break-Pass-Decl

Why does this asymmetry between the two types of separation predicates arise? Previous research (Bohnemeyer 2007: 157; Levin and Rappaport Hovav 1995; Guerssel et al. 1985) has claimed that BREAK verbs are semantically monadic, whereas CUT verbs are semantically dyadic. If we accept this premise, we can explain why the passive marker is compatible with CUT predicates but not with BREAK predicates. When utterances about separation events are passivized, the causing entity or event that impacts the theme is demoted. However, if the semantic structure of the BREAK type does not include the causing entity or event in the first place; there is no element to demote. I therefore believe that these analyses of the semantic structures of the CUT and BREAK predicates as asymmetrical holds true for Korean.

Because the inchoative semantics of an anticausativized verbal complex is compatible with the intransitivity of passivized predicates, the anticausative marker -eci- and the passive morphemes are often used together in the same verbal complex.

(12) kkoch-tul-i cal-li-eci-ess-ta
    flower-Pl-Nom cut-Pass-Anti.Caus-Ant-Decl

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6 The choice of anticausative morpheme is morphologically conditioned.
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‘The flowers have been trimmed.’

When both a passive marker and the anticausative marker are used in a clause, the
overall interpretation is similar to the interpretation when either one of the markers
is used.

Middle constructions in Korean can contain either a passive morpheme or the
anticausative morpheme or both. According to Levin (1993: 26) and Bohnemeyer
(2007: 156), middles do not refer to individual events with specific time references;
they have understood but unexpressed agents. The utterances in (13a) and (13b),
with the passive marker -li- and the anticausative marker -eci-, respectively, would
be used in such contexts.

(13) a. i-khal-i cal cal-li-n-ta
   this-knife-Nom well cut-Pass-Imprf-Decl
   ‘This knife cuts well.’

   b. i-khal-i cal call-eci-n-ta
      this-knife-Nom well cut-Anti.Caus-Imprf-Decl
   ‘This knife cuts well.’

A schematic structure for the middle construction is provided in (14).

(14) The Middle-Voice Construction:

   N3-Nom Adv V{-Pass|AntiCaus}-Tns/Asp-S.End

As the schema in (12) shows, N3, the instrument, is expressed as a grammatical
subject for the middle construction, and there are no overt noun phrases expressing
the agent or the theme. In some types of middle constructions, N2, the theme, can
also appear as a grammatical subject, as in the example in (15).

(15) i cwul-i cal cal-li-n-ta
    this string-Nom easily cut-Pass-Imprf-Decl
    ‘This string cuts easily.’
2.3 The causative morpheme \(-ttuli-\)

While anticausative elements generally decrease the number of participants in a predicate’s argument structure, causative elements generally increase the number of participants. For example, when the causative marker \(-ttuli-\) is used, the situation must include an understood agent (Yenghuy), as in the example in (16).

(16) \[ \text{Yenghuy-ka} \quad \text{kkochpyeng-ul} \quad \text{kkay-\(-ttuli-\)!ess-ta} \]
\[ \text{Yenghuy-Nom} \quad \text{vase-Acc} \quad \text{break-Caus-Ant-Decl} \]
\[ \text{‘Yenghuy broke the vase.’} \]

Interestingly, comparing (16) to the example in (17) without a causative marker, we find that there is no significant truth-conditional semantic difference between them.\(^7\)

(17) \[ \text{Yenghuy-ka} \quad \text{kkochpyeng-ul} \quad \text{kkay-\(!ess-ta} \]
\[ \text{Yenghuy-Nom} \quad \text{vase-Acc} \quad \text{break-Ant-Decl} \]
\[ \text{‘Yenghuy broke a vase.’} \]

The difference between the utterances in (16) and (17) is that (16), with \(-ttuli-\) expresses the semantics of completion and even that of irreversibility (for more detailed discussion, see Kim 2010).\(^8\)

There are a number of \break predicates that can be used with or without \(-ttuli-\). For instance, the verb \text{kkay-} ‘break [a brittle object]’ used in (16)-(17) is licensed with \(-ttuli-\) or without it. There are also a few \break predicates in Korean that are obligatorily marked with \(-ttuli-\), i.e., where the predicate is not licensed without \(-ttuli-\). For example, the \break verb stem \text{mwune-} is not used by itself, but has to be used with either \text{-eci-} (\text{mwuneeci-} ‘be torn down’) or \text{-ttuli-} (\text{mwunettuli-} ‘tear

\(^7\) For this reason, Kim (2010) argues that \(-ttuli-\) can function instead as a pragmatic intensifier.

\(^8\) Eve Sweeter (p.c.) has suggested that if this causative/noncausative variation is related to completion versus non-completion of the separation process, it might be interesting to examine the semantic similarities between the noncausative (less complete) constructions and the conative construction in English. I believe that the Korean noncausative is very similar to the English conative; it seems likely that there are some parallels because the causative construction with \(-ttuli-\) seems to imply more irreversibility or completion, unlike in the English conative with \text{at} in \text{Tom cut at in the bread}. However, this question absolutely merits a more in-depth analysis.
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down’). These multimorphemic predicates with -ttuli- in the inventory of BREAK predicates in Korean are listed in (18).

(18) break predicates obligatorily used with -ttuli-
  pasulettuli- ‘break,’
  mangkattuli- ‘cause to not function properly,’
  pwulettuli- ‘break [a long, thin object],’
  mwunettuli- ‘tear down [a structure]’
  usulettuli- ‘pulverize’

-Ttuli- is not normally used with CUT predicates.

2.4 The completive auxiliary nay–

There is another way that Korean speakers conceptualize cutting and breaking events, namely, as bringing about the state that prototypically results from that event, i.e., being separated and/or destroyed. Korean has a rich inventory of serial verb constructions. Among the numerous auxiliary verbs that can be used in these constructions is the completive auxiliary nay-, which can be used to profile the resulting state in the conceptualization of an event, as in the example in (19).

(19) sengna-n kwuncwung-tul-un kutul-aph-ey noh-i-n
  angry-Rltvzr crowd-Pl-Top they-front-Loc put-Pass-Rltvzr
  cha-lul  paksal-nay-ess-ta
  car-Acc destroy-Aux-Ant-Decl
  ‘The angry crowd totally destroyed the car in front of them.’

The predicates that include the completive auxiliary nay-, namely have the same morphological structure; they are each based on a noun denoting destruction: sansancokak- ‘destruction into pieces,’ caksal ‘smash,’ acak- ‘cracking sound’ and paksal ‘destruction.’ The root paksal refers to the state resulting from the breaking action, i.e. destruction, so the predicate paksalnay- literally means ‘make destroyed.’

Because most of the CUT/BREAK predicates in Korean are underspecified for whether they entail completion, most of the CUT/BREAK predicates in Korean are compatible with the completive auxiliary. Some of the BREAK predicates must obligatorily be used with the *nay*-; those verb stems are not licensed without it. For example, the multimorphemic predicate *tolyenay*- entails that the agent is scooping or scraping some part out from its whole. It is usually used with things that need removing, like a rotten part of a food item and or a decaying part of a wound. The predicates are listed in (20).

(20) CUT and BREAK predicates obligatorily used with *-nay-
- *thomaknay*- ‘cut up’
- *tolyenay*- ‘cut something out’
- *sansancokaknay*- ‘destroy’
- *caksalnay*- ‘smash’
- *paksalnay*- ‘destroy’
- *acaknay*- ‘crack’ (*acak* is onomatopoeically associated with smashing)

*Thomak-nay-* is the only CUT type predicate that is used with the completive auxiliary.\(^\text{10}\) This conforms to the crosslinguistic tendency for BREAK verbs to more often specify a particular kind of state change, in contrast with CUT verbs, which are more often nonspecific as to the change effected (More detailed discussions of which particular predicates inherently specify the resulting state may be found in Sections 3.4 and 4.2).

### 3. The Korean CUT predicates

The predicates that encode cutting events crosslinguistically are characterized as follows. First, the predictability of the locus of the separation on the theme is critical in distinguishing CUT predicates from BREAK predicates. Cutting events involve a relatively high degree of predictability in this regard, whereas breaking events involve greater uncertainty as to the locus of separation (Narasimhan 2007: 196).

\(^\text{10}\) The noun *thomak* means ‘chunk,’ so the combination with *nay*- yields the sense ‘bring about multiple chunks.’
Second, \textit{cut} predicates imply clean separation; the theme object is divided into multiple objects whose edges are smooth. Third, \textit{cut} predicates imply full detachment, though it is not necessarily entailed for all predicates.

This section discusses an exhaustive list of \textit{cut} predicates in Korean. \textit{Calu- ‘cut’} is a representative term for this group, in that it is applicable in a broad range of contexts. The other predicates I explore here are \textit{ccay- ‘cut open [a tightly interwoven three-dimensional object],’ ccokay- ‘split [a hard object],’ kalu- ‘cut open’/ ‘split,’ kkunh- ‘cut [a string or string-like object],’ nanwu- ‘cut up for distribution,’ oli- ‘cut with scissors,’ pey- ‘cut with a horizontal swinging motion,’ ssel- ‘slice,’ thaa- ‘saw down the middle,’ ttut- ‘pull off,’ thomaknay- ‘cut into several pieces,’ kkakk- ‘peel’/ ‘sharp’, cemi- ‘cut [meat],’ taci- ‘cut into pieces,’ chi- ‘trim,’ and toil- ‘cut out.’

These predicates can be categorized according to the following parameters: the physical properties of the theme, the properties of the cutting motion, what kind of instrument is involved, and whether the process or the result is profiled.

3.1 The properties of the theme

To capture what properties characterize potential fillers of the theme role for each predicate, I test the compatibility of each predicate with a set of entities and substances as themes: \textit{ttek ‘rice cake’} (edible, sticky, and elongated), \textit{congi- ‘piece of paper’} (thin, malleable, and tearable), \textit{namwu ‘tree’} (hard), \textit{cwul ‘string’} (elongated, malleable), \textit{chen ‘cloth’} (thin, malleable, and tearable), \textit{melikhalak ‘hair’} (mass, differentiable), \textit{ppang ‘bread’} (edible, mass and malleable), \textit{sonthop ‘finger nail’} (thin, hard, and breakable), \textit{sakwa kkeptcil ‘apple peel’} (edible, breakable), \textit{pay ‘abdomen’} (mass and malleable), \textit{pak ‘gourd’} (hard surface, and breakable)\textsuperscript{11}.

The target construction used to test for compatibility is schematized in (21).

\begin{quote}
\textsuperscript{11}The theme elements listed here have different values in three aspects: function (edible or not), texture (hard, malleable, sticky, tearable, breakable), and shape (elongated, mass, thin). As one of the anonymous reviewers correctly pointed out, however, it would further enhance quality of the analyses if the aforementioned properties are systematically parameterized. The author agrees to the raised point and it calls for further research focusing more on systematic classification of the theme elements. The current analyses are nevertheless meaningful, to the author’s belief, in that they are still able to show the fact that Korean \textit{CUT/BREAK} predicates are sensitive to various different properties of theme elements.
\end{quote}
The candidates for the theme fill the N₂ slot and the various CUT predicates fill the V slot. The results of the compatibility test are summarized in table 1. A check mark (P) indicates that the theme candidate is compatible with the predicate in question; a question mark (?) indicates that the theme candidate is not compatible or is compatible only when some very unusual scene is being described; and a combination of the two (P/?) indicates that the theme candidate is compatible with the predicate but that the latter is not the prototypical CUT predicate used for that theme.

**Table 1. The CUT predicates in Korean and potential candidates for themes**

<table>
<thead>
<tr>
<th></th>
<th>rice</th>
<th>paper</th>
<th>tree</th>
<th>string</th>
<th>cloth</th>
<th>hair</th>
<th>bread</th>
<th>finger</th>
<th>apple</th>
<th>gourd</th>
<th>abdomen</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>✓</td>
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<tr>
<td>c.</td>
<td>✓</td>
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<td>MULTIMORPHEMIC</td>
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</table>

Overall, the predicates calu- and pey- are general CUT verbs that can be used to describe any kind of cutting event involving a sharp object unless theme’s spatial orientation is conditioned additionally (e.g., a tree that has already been cut down on
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the ground; for more details, see Section 3.2 below). However, when they are used with *sonthop* ‘finger nail’ or *sakwa kkpecil* ‘apple peel,’ they do not evoke the prototypical actions of clipping nails or peeling an apple, though they can be used to describe other types of severing or separating events. *Sonthop* and *sakwa kkpecil* are prototypically used with (f) *kkakke*-. In addition, *pey-* is less likely to be used with *ttek* ‘rice cake’ and *ppang* ‘bread’; (e) *ssel-* ‘slice’ is more usually used to describe cutting of food.\(^{12}\)

Some other predicates are sensitive to semantic domain, in that they are used exclusively for food. The predicates (m) *cemi-* and (n) *taci-* are both used mainly in recipe books. They refer to a separation event with repetitive cutting actions that result in many small pieces; for example, they are both frequently used with *koki* ‘meat’ and *manul* ‘garlic.’

Some of the predicates in table 1 are used only with mass objects, and are not felicitous with thin and malleable objects such as paper and cloth. Only the predicates (a) *calu-* , (b) *pey-* , (c) *nanwu-* , and (i) *oli-* are unremarkably compatible with *congi* ‘paper,’ while the other predicates are not.

The predicates that are not compatible with thin objects can be categorized into sub-groups by the object’s texture, shape, and semantic domain, and by which portion is generally separated.

Themes that are compatible with the predicate *ccokay-* are entities that have a hard, breakable texture. The informal-register predicates (g) *ccay-* and (h) *kalu-* are used when the agent cuts something open by applying a sharp instrument to the surface. It usually goes with an object or body part whose texture is soft and fleshy (such as *pak* ‘gourd’ or *pay* ‘abdomen.’). The predicate (k) *ttut-* entails that the agent separate a mass object like a loaf of bread or a rice cake with bare hands, pulling a part off from the whole, so that the shapes of the separated parts are irregular. The theme entity must thus be tearable; *ttut-* does not work with, for example, *sakwa* ‘apple.’

Some predicate such as *kkunh-* are sensitive to the shape of the theme element as well. *Kkunh-* is used for an elongated entity; the prototypical shape of a rice cake that is used with *kkunh-* is elongated. The predicate is used also with *kkun ‘string,’

\(^{12}\) *Pey-* can be used with *ttek* and *ppang*. However, it would sound very strange; according to my intuition, it might evoke a scene in which, for example, a swordsman nailed down the rice cake or the bread with his sword.
which is also a long and malleable object.

In sum, the CUT predicates in Korean are differentiated by the properties of the theme element, including substance, shape, and semantic domain, and as a result, Korean has a variety of predicates that reflect this differentiation.

3.2 The properties of the cutting action

This subsection contends that, in addition to the properties of the theme, the CUT predicates are also differentiated by entailments related to the manners in which the separation action is performed.

The first property of the cutting event that is of interest here is the purpose encoded by a predicate. The predicate (c) nanwu- is used to refer to separation for the purpose of distributing the parts around; as hair, finger-nails, apple peels, and human body parts are not normally distributed out, nanwu- does not tend to be used with those objects. Namwu- is also frequently used to refer to categorizing a group of entities into smaller sub-groups; the purpose of this categorization process is usually to aid in beneficial distributions.

Another interesting property of the cutting event is the orientation of the theme entity with respect to the horizontal ground. As shown in the utterance in (22) and (23), the prototypical use of the predicate pey- is felicitous only when the base of the theme entity is set in the ground, or when the theme entity is conceptualized as being vertical with relation to the ground.

(22) maul-aph-ey se-eiss-nun namwu-lul pey-e-o-ala
    town-front-Loc stand-Dur-Rltvzr tree-Acc chop-Conn-come-Imper
    ‘Chop down the tree standing in front of the town and bring it to me.’

(23) ceki ssah-i-eiss-nun namwu-lul pey-e-o-ala
    there stack-Pass-Dur-Rltvzr log-Acc chop-Conn-come-Imper
    ‘Chop the wood stacked there and bring it to me.’

The utterance in (23) is not felicitous because pey- is not generally used with logs that are already cut down and stacked.13

13 One of the anonymous reviewers sharply pointed out that there seem to be more than a few counterexamples for this generalization such as khal-lo maul pey-ki [knife-Instr water-PEY-nmlzr]
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The predicates (e) *ssel-* and (j) *kkunh-* also encode information about the orientation of the entity relative to the horizontal ground. Both *ssel-* and *kkunh-* can be used with elongated entities; they entail that a sharp object (e.g., a cutting blade) is moving perpendicular to the length dimension of the theme entity, as illustrated in the sequence of images in Figure 1.

![Figure 1. Schematization of the perpendicular cutting action encoded by *ssel-* and *kkunh-*](image)

Korean has another predicate, *esus-ssel-* that contains the prefix *esus-*, denoting a diagonal path (*Esus-* seems to be used only with *ssel-*). A schematic representation of the orientation entailed by *esus-ssel-* is given in Figure 2.

![Figure 2. Schematization of the diagonal cutting action encoded by *esus-ssel-*](image)

The predicate (f) *kkakk-* entails that the agent is trimming or cutting back material from the edge or surface of an entity smooth; for example, it can be used

‘splitting water with a knife [referring to a situation wherein an attempt to break up a relationship is in vain]’, *son-ul pey-i-ta* [finger-Acc PEY-pass-Decl] ‘have a cut in one’s finger’, *sakwa-han-ip pey-e-mwul-ta* [apple-Acc one-bite PEY-Conn-keep.in.mouth-Decl] ‘have a bite of an apple’ etc. because all the examples do not necessarily presuppose that the theme elements are erect. The author believes that this is an outstandingly valid point in that the use of the predicate in question is extensively used for non-prototypical cases such as the examples above. The cognitive motivation for the predicate, however, still seems to hold in that the non-prototypical cases as well as canonical cases in (22)-(23) entail that the surface of the theme elements meets an instrument in question in a perpendicular way and that the perpendicularity is conceptually salient for the uses of *pey-*. This conceptual perpendicularity of the predicate *pey-* calls for further research in this respect.

One of the anonymous reviewers contends that the acceptability judgment of (23) differs from what is presented. To the author’s knowledge, however, the utterance (23) clearly has a different acceptability status from (22). These kinds of interpretations nevertheless would benefit from a corpus study of usage, which should be undertaken in further research.
for trimming trees, cutting nails, and peeling skins off of apples. Chi- also entails that the agent is trimming material from the edge of an entity, but it is used exclusively with plants. Ccokay- also specifies the zone of separation; it is used with entities that would show clear detachment and prototypically indicates that the theme is severed down the middle.

Some cut predicates specify what kind of force is exerted on the theme. For example, ttut- entails that the agent is tearing some portion off from the whole entity by exerting a pulling force on it (generally with her bare hands). Ttut- entails full detachment, but it is the resulting pieces do not have smooth ends. It is therefore generally infelicitous to use ttut- with an instrument that results in clean-cut ends.

(24) ?Chelswu-ka hhal-lo ppang-ul cokum ttut-ess-ta
Chelswu-Nom knife-Instr bread-Acc a.little.bit pull.off-Ant-Decl
‘Chelswu tore some bread with a knife.’

Restrictions on manners are, of course, related to characteristics of the theme entity. In the case of ttut-, as I noted in Section 3.1, the theme must be something tearable, such as bread or a rice cake, not a more solid entity such as an apple. The predicate (d) ccokay- also indicates what kind of force is used, namely, that the agent strikes the theme. The encoded action is performed one single time and the striking action results in severed chunks.

Cut predicates may also be differentiated by whether the cutting action is singular or repetitive. For example, the action described by ccokay- is performed one single time, action resulting in complete separation.

The predicate (m) tha- entails that the agent repeatedly moves a sharp instrument (such as a blade) across the surface of an entity so that she can split it into two pieces. Appropriate themes that are consistent with this manner of cutting include trees and gourds, which are difficult to sever in a single pass with a blade.

3.3 Specification of the instrument

The cut verbs in general imply that the agent is using an instrument, usually a sharp object such as a knife. However, two of them linguistically encode that a specific instrument is used (not a knife): oli- ‘cut with scissors,’ and tha- ‘saw.’
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Oli- always entails that the agent separate the theme using scissors (kawuy). Utterances like (25) in which oli- is used with some other instrument are infelicitous.

(25) ?Chelswu-ka khal-lo congilul oli-ess-ta
    Chelswu-Nom knife-Instr paper-Acc cut.with.scissors-Ant-Decl
    ‘Chelswu cut a sheet of paper with a knife.’

The utterance in (25) sounds odd because the information of instrument encoded by the predicate oli- conflicts with the overtly expressed instrument in the utterance. If the predicate oli- is replaced with calu-, the utterance will be acceptable.

Tha- is the other CUT predicate that encodes information about a specific instrument. It must be used with the instrument thoph ‘saw’; the utterance in (25) with khal is infelicitous.

(26) ?Yenghuy-ka khal-lo pak-ul tha-ess-ta
    Yenghuy-Nom knife-Instr gourd-Acc saw-Ant-Decl
    ‘Yenghuy sawed a gourd with a knife.’

3.4 Action-versus result-profiling

There is one more parameter I will discuss here by which Korean CUT predicates can be categorized: whether the action of cutting or the state resulting from the cutting action is profiled. For instance, calu- profiles the resulting state, while pey-profiles the cutting action. As Jeon (2002) describes it, “in the case of caluta, there is great emphasis on the outcome of being separated; … there is great emphasis on the process of separation in the case of peyta…” (2002: 219). The fact that the two predicates profile different phases of the separation event can be tested using utterances such as those in (27) and (28).

    rice-Acc cut-Ant-Advrs it-Top cut-Pass-Anti.Caus-Neg-Ant-Decl
    ‘I cut a bunch of rice, but it did not end up cut.’

(28) pyesciph-ul pey-ess-ciman kukes-un pey-i-eci-cianh-ass-ta
In the positive first clause of the utterance in (28), when *pey-* refers to the action, not the result. Therefore, the negation in the inchoative second clause, describing the final state, is not problematic. In contrast, *calu-* in the positive first clause of the utterance in (27) profiles the state of separation resulting from the cutting, so the negation in the second clause induces a contradiction, making the utterance in (27) infelicitous. This difference can be represented in terms of sequences of image schemas as in Figures 4 and 5.

Figures 4 and 5 demonstrate that *calu-* and *pey-* share much of their conceptual structure in common: a single entity undergoes a change of state due to a separation event and becomes multiple entities. The significant difference is in whether the resulting state is profiled (Figure 4) or whether the cutting event is profiled (Figure 5).

Most of the *CUT* predicates in Korean except *pey-* profiles the state resulting from the action. When the semantic test used in (27) and (28) is applied to any of these predicates, none of the resulting utterance is felicitous; an example with *kalu-* ‘split’ is given in (30).

(29)  *ppang-ul kalu-ess-ciman kukes-un kal-li-eci-cianh-ass-ta*

    rice-Acc kalu-Ant-Adversative it-Top split-Pass-Anti.Caus-Neg-Ant-Decl

    ‘I split the bread, but it did not end up split.’
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As I noted in Section 2.4, multimorphemic predicates containing the completive auxiliary *nay-* belong to this category, because the completion encoded by *nay-* is closely related to the profiled of the resulting state. For example, when the multimorphemic predicate *thomak-nay-*, which entails that the agent is using an instrument to sever an entity into several pieces with clean-cut ends, is used in the type of utterance we are using as a profiling test, as in (30), the result is infelicitous.

rice-Acc split-Ant-Adversative it-Top split-Pass-Anti.Caus-Neg-Ant-Decl
‘I cut up bread, but it did not end up cut up.’

4. The Korean **BREAK** predicates

The **BREAK** predicates in Korean tend to evoke a messy separation, in which the theme element ends up in multiple pieces that have irregular shapes. A stronger sense of irreversibility is thus implied than is often the case with **CUT** predicates. Unlike some of the **CUT** predicates described in the previous section, all of the **BREAK** predicates seem to profile the state resulting from the event. Most obviously, all of the multimorphemic **BREAK** predicates discussed in Sections 2.3 and 2.4 profile the resulting states because they contain morphemes, specifically related to the result state, namely, the causative/intensifying morpheme *-ttuli-* which contributes a semantics of irreversibility or the completive auxiliary *nay-*.

It is notable that the predicates with *-ttuli-* and *nay-* highlight that the event was completed (i.e., went through all of the phases of an event), but do not necessarily lexicalize the characteristics of the particular resulting state. In contrast, a lot of the other **BREAK** verbs profile the resulting state in that they have entailments related to particular characteristics of that state or even lexicalize the particular characteristics of that state.

This section explores the Korean **BREAK** predicates, *kkay-* ‘break [a brittle object],’ *hemwul-* ‘tear down [a structure],’ *pwuswuettuli-/pasulettuli-* ‘break,’ *kkayttuli-* ‘break [a brittle object],’ *mangkattuli-* ‘cause to not function properly,’ *pwulettuli-* ‘break [a long, thin object],’ *mwanettuli-* ‘tear down [a structure],’ and
usulettuli- ‘pulverize.’

As with the CUT predicates, one set of parameters that can be used to categorize the BREAK predicates relates to the substance that forms the theme element. If the predicate pwuswu- is used with the object ppang ‘bread,’ as in (31), the addressee might imagine a picture in which someone hit a very brittle loaf of bread with some part of a knife so that it broke into small pieces.

(31) Chelswu-ka ppang-ul khal-lo pwuswu-ess-ta
Chelswu-Nom bread-Acc knife-Instr pwuswu-Ant-Decl
‘Chelswu broke the bread with a knife.’

Predicates of breaking are sensitive to the physical properties of the entity that undergoes a change of state. If the object were something that had a softer and tighter, like koki ‘meat,’ as in (32), the utterance would be less acceptable.

(32) ?Chelswu-ka koki-lul khal-lo pwuswu-ass-ta
Chelswu-Nom meat-Acc knife-Instr break-Ant-Decl
‘Chelswu broke the meat with a knife.’

The utterance in (32) could only be licensed if the meat were frozen so cold that it had become breakable.

I have applied the same kind of analysis to the Korean BREAK predicates that I used to determine which kinds of entities could be used as themes with the CUT predicates. To capture potential properties of the theme for each predicate, I tested each predicate with various kinds of entities or substances as objects: yuli ‘glass’ (easily breakable), pawuy ‘rock’ (hard, difficult to break), namwukaci ‘tree branch’ (hard, elongated), chayksang ‘desk’ (functioning), tam ‘wall’ (hard, functioning, erect, difficult to break), cwul ‘string’ (malleable, elongated, functioning), chen ‘cloth’ (thin, tearable, malleable, functioning), sophuthuwueye ‘software’ (functional, nonphysical), mom ‘body’ (soft, malleable, functioning), kamca ‘potato’ (hard, edible), and seng ‘castle’ (hard, functioning, difficult to break)
Table 2. The break predicates in Korean and their potential candidates for the theme

<table>
<thead>
<tr>
<th></th>
<th>glass</th>
<th>rock</th>
<th>tree</th>
<th>desk</th>
<th>wall</th>
<th>string</th>
<th>cloth</th>
<th>software</th>
<th>body</th>
<th>potato</th>
<th>castle</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. <em>pwuswu-</em></td>
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<td>✓</td>
<td>✓</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>b. <em>ppakay-</em></td>
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<td>✓</td>
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<tr>
<td>c. <em>kkay-</em></td>
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<td>✓</td>
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<td>?</td>
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<tr>
<td>d. <em>henwul-</em></td>
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<td>?</td>
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<tr>
<td>MULTIMORPHEMIC:</td>
<td>-TTULI-</td>
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<tr>
<td>f. <em>mangkattuli-</em></td>
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<td>g. <em>usulettuli-</em></td>
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<td>✓</td>
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<td>?</td>
<td>✓</td>
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<td>i. <em>mweunftuli-</em></td>
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<tr>
<td>j. <em>paxsettuli-</em></td>
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<tr>
<td>MULTIMORPHEMIC:</td>
<td>-NAY-</td>
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</tr>
</tbody>
</table>
| k. *sansancokak-
| nay-*            | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| l. *caksalnay-*  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| m. *acoknay-*    | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| n. *paksalnay-*  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

4.1 The physical characteristics of the theme

The first property I wish to explore is whether the theme element is brittle enough to be breakable. Although the predicates (a) *pwuswu-* , (b) *ppakay-* , and (c) *kkay-* are generally similar in terms of the properties of the themes they can be used with, *ppakay-* and *kkay-* are more specialized for brittle objects than *pwuswu-* ; *ppakay-* and *kkay-* are felicitously used to describe breaking a glass or a rock but are not as likely to be used to describe breaking a stick or a desk, whereas *pwuswu-* can easily be used with any of those objects. *Ppakay-* is used when an agent splits a solid entity with a hard surface into several pieces by striking it.15 *Ukkay-* is also usually used with brittle objects, especially with food items. It indicates that the theme entity has been struck hard and become mushy. The only entity in the test that works naturally with *ukkay-* is thus kamca ‘potato,’ which can be made into mashed-potatoes flakes. *Pwulettuli-* requires that the theme element be elongated and

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15 *Ppakay-* has a diminutive counterpart, *ppokay-* , used when the breaking action is conceptualized as being smaller than expected.
stiff as well as brittle; among the candidates in Table 2, only namwukaci- ‘tree branch’ is compatible with pwalettuli-.

It seems that some of the BREAK predicates are more prototypically used for metaphorically extended descriptions of actions in the digital domain than descriptions of actions in the physical domain. For example, I found that the predicate mangkattuli- is more frequently used to describe the mal-functioning of non-physical themes. There are also many examples on the web in which the BREAK predicates with nay- are used with nonphysical themes.

The predicate mangkattuli- requires that its theme entity, whether physical or nonphysical, serve a function for humans or at least that it be possible to conceptualize it as serving a function. Nonartificial objects such as rocks, tree branches, and potatoes are not likely to be used with mangkattuli- under normal circumstances. However, it is possible for them to be used with mangkattuli- in cases where they are conceptualized as being functional for humans; for instance, if someone had messed up in pruning a garden tree so it no longer shaded the house, mangkattuli- could be used with namwukaci- ‘tree branch.’

4.2 Functionality

Many attested examples referring to the mal-functioning of functional objects contain the BREAK predicates that include the completive auxiliary nay-. These breaking scenes in the physical domain mapped onto the non-physical domain, using the conceptual metaphor the function of an object is a physical object (Lakoff and Johnson 1980, 1999). Conceptual metaphors are cognitive mechanisms involved when one understands one abstract concept in terms of another relatively concrete concept (Lakoff and Johnson 1980, 1999). The metaphorical systems that are operative here are functionality is a physical object and making something nonfunctional is breaking a physical object. The following sentences are examples of this metaphorical use of various BREAK predicates with nay-.

(33) bullokuka sansancokakna-ess-ta
    blog-Nom be.destroyed-Ant-Decl
    ‘My blog has been destroyed.’
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(34) *khemphyuthe caksalnay-nun phulokulaym*
computer smash-Rltvzr program
‘a program that cracks a computer’

(35) *pullaykpeyli acaknay-ki*
blackberry crack-Nmlzr
‘cracking a Blackberry’

(36) *cengsangecekulo tongcakha-ten motun sorphuthuwueye-nun*
normally operate-Rltvzr all software-Top
*paksalna-n-ta*
be.destroyed-Imprf-Decl
‘All the software that was normally operational is down.’

Like *kkay*- and *mangkattuli*-, the BREAK predicates containing *nay*- can be used with both physical and nonphysical themes. The predicate *kkay*- can be used with a software as a theme, whereas *ppakay*- and *pwuswu*- cannot, indicating that *kkay*- may be distinguished from the latter two verbs in the dimension of functionality of the theme (Notice that *kkay*- is the only monomorphemic predicate that is compatible with non-physical objects like software).

The compatibility of various predicates with the theme *seng* ‘castle’ in table 2 demonstrates that the verbs of breaking are concerned with functionality of *seng* ‘castle. The verbs that are concerned with physical properties of a theme element, not with functionality, are *hemwul*- and *mwunettuli*- Excluding these verbs, the other breaking verbs are able to address functionality of a theme.

4.3 The resulting state

For the multimorphemic BREAK predicates, the causative morpheme -ttuli- and the completive auxiliary *nay*- both contribute a strong implicature of the irreversibility of the state resulting from the breaking event.

The predicate (f) *usulettuli*- profiles the particular state resulting from the BREAK event, namely, that the substance(s) that formerly made up the theme is/are now in the form of a powder. Among the possible themes listed in table 2, tree branches,

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16 Blackberry is a brand of Internet-capable mobile phones.
desks, strings, and cloth are not compatible with *usulettuli-* because their texture does not easily lend itself to being ground into a powder.

When the predicates *caksal-nay-, acak-nay-, and paksal-nay-* are used for physical breaking, they are prototypically used when the theme entity is broken into several pieces as a result of a striking type of action (implied by the nouns they derive from, with meanings like ‘smash’ and ‘breaking sound’). These predicates are therefore less preferred when used with soft objects such as strings or cloth. *Sansancokaknay-* also profiles a resulting state in which several pieces are fully detached from each other, but it can be used with both hard theme entities and soft theme entities.

The predicate *pasulettuli-* entails that the end state of the breaking event involve multiple tiny pieces. *Pasulettuli-* is particularly interesting because it is derived from the ideophone *pasulak* in Korean. This ideophone is often used to describe the sounds that occur when someone steps on fallen leaves. *Pasuletturi-* therefore requires that the theme object be crackable and brittle enough to make a sound when broken. Of the possible themes listed in table 2, the only one that meets this requirement is *yuli* ‘glass.’

### 4.4 Active zone for breaking

Some *break* predicates in Korean evoke a scene in which only one part of the theme is affected, i.e., undergoes a change of state, while some evoke a scene in which the whole theme is affected or are ambiguous as to whether the whole or a part. In other words, each of the predicates evoke different active zones (Langacker 1991) with respect to the theme element.

For example, the predicate *pwuswu-* does not necessarily entail that its active zone is the whole portion of the theme, whereas the predicate *hemwul-* does. *Hemwul-* requires that the theme entity be a structure of some sort; it must outsize the agent or be otherwise conceptualized as large. This difference is instantiated in the pair of utterances in (37a) and (37b), which mean different things with regard to the portion of the entity that undergoes a change.
(37) a. Chelswu-ka tam-ul tokki-lo pwuswu-ess-ta
   Chelswu-Nom wall-Acc axe-Instr break-Ant-Decl
   ‘Chelswu broke into the wall with an axe.’ Or ‘Chelswu took the wall down using an axe.’

b. Chelswu-ka tam-lul tokki-lo hemwul-ess-ta
   Chelswu-Nom wall-Acc axe-Instr hemwul-Ant-Decl
   ‘Chelswu took the wall down using an axe.’

The utterance in (37a) does not necessarily mean that the entire structure is broken down, whereas the utterance in (37b) necessarily entails that the entire wall be broken down.

5. Summary

This paper had explored a number of predicates of cutting and breaking in Korean. In terms of morphosyntax, the CUT and BREAK predicates in Korean are lexically transitive; with a passive marker or the anticausative marker -eci-, it is possible to express intransitive and/or inchoative semantics. In the agent-focused constructions, i.e., actives, the verbs may be used with or without the causative morpheme -ttuli-. In the theme-focused constructions, i.e., passives and middles, either the anticausative morpheme -eci- or one of the passive morphemes must be used; the passive markers may only be used with CUT verbs, while the anticausative marker may be used with either. Some of the breaking predicates contain the completive auxiliary nay-, which overtly encodes that an action has been completed—in this case, that complete separation has occurred. Some of the other predicates entail that some particular result state, i.e., some particular type of separation, has occurred.

This paper compiles an exhaustive list of the various predicates that encode cutting and breaking events in Korean and categorizes them into a number of subgroups. The semantic features that affect the choice of a particular CUT predicate are listed in (38) and the features that affect the choice of BREAK predicates are listed in (39).
(38) Parameters Relevant for CUT Predicates
   a. Properties of the theme: Texture, shape, semantic domain, active zone of separation
   b. Properties of the cutting action: Spatial orientation and direction, type of force, repetition
   c. Specification of the instrument
   d. Temporal profiling within the cutting event

(39) Parameters Relevant for BREAK Predicates
   a. Properties of the theme: Brittleness and shape
   b. Functionality
   c. The resulting state
   d. Active zone for breaking

Both CUT predicates and BREAK predicates are sensitive to the physical characteristics of the theme entity. CUT predicates are sensitive to the theme’s functioning, texture, and shape; the zone of separation, and the theme’s semantic domain. The CUT predicates are sensitive to further parameters: certain properties of the cutting action, whether a specific instrument is used, and which temporal phase of the cutting event is profiled. Among the properties of the cutting action that condition the choice of predicate is whether it is horizontally or vertically oriented; it is notable that this difference has not been attested in other languages. BREAK predicates are also sensitive to whether the theme is a functional item. The BREAK predicates have only one other parameter of differentiation: the zone of separation (All of the BREAK predicates profile the resulting-state phase of the breaking event).

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