On the relationship between middles and passives:
a polyfunctional analysis of *-eci* in Contemporary Korean

Mikyung AHN and Foong Ha YAP

Hankuk University of Foreign Studies, Seoul, Korea

& Chinese University of Hong Kong, Shenzhen

Abstract

In this paper, using data from the *Sejong* Contemporary Spoken Corpus, we investigate similarities and differences between middle and passive *-eci* constructions in Contemporary Korean. More specifically, we examine how Korean voice marker *-eci* has extended from middle uses to passive ones, and in the process expanded its range of functions from marking adversity to signaling non-adversative readings as well. Our findings reveal that judgments about adversative readings in contemporary Korean are not emergent solely from the semantics of the verbs or adjectives preceding *-eci* but additionally are emergent and grounded in the interaction between discourse participants. Our analysis of the distributional characteristics of *-eci* further reveals an interaction between voice and tense-aspect-mood (TAM) among the *-eci* constructions. In addition, contrary to the traditional notion that *-eci* is essentially a passive marker, our findings reveal that in real usage, *-eci* is still far more frequently used as a middle marker than a passive marker.

Keywords: middle voice, spontaneous, inchoative, facilitative, subjectification, tense-aspect-mood, adversative semantics

1. Introduction

Previous studies have shown that some languages deploy the same grammatical markers for the expression of both middle voice and passive voice constructions (see, for example, Shibatani 1985 on Japanese *-rare*, Kemmer 1993 on Latin *-r*, and König & Moyse-Faurie 2010 on Italian *si*). Korean has two different kinds of morphemes—namely, *-i* and *-eci*—that can express both middle and passive voice. Voice marker *-i* has developed extended uses along two major grammaticalization pathways: causative > reflexive causative (middle) > passive, as in (1a-c), and spontaneous > facilitative within the middle voice domain, as in (2a-b) (Ahn & Yap 2017a). Voice marker *-eci*, on the other hand, has expanded its middle voice functions in the direction spontaneous > inchoative > facilitative, as in (3a-c), and additionally *-eci* has developed along a middle > passive pathway without the mediation of reflexive constructions as a bridge construction, as in (4a-b) (Ahn & Yap 2017). These variations in the grammaticalization pathways within the Korean voice system indicate that source

constructions influence their grammaticalization trajectory. In this paper, we will examine the functional distribution of voice marker *-eci* more closely to better understand how middle voice markers originating from intransitive predicates grammaticalize into passive voice markers for transitive constructions.

(1) a. *emma-ka*　　*nay-key*　*insam-cwuk-ul*　　*mek-y-ess-ta*　　　(Causative)
　　　　mother-NOM　1SG-DAT　ginseng-soup-ACC　eat-**CAUS**-PST-DEC
　　　　'Mother had me drink ginseng soup.'

　　b. *sunglye-ka*　*ceyca-eykey*　*caki*　*meli-lul*　　　　(Reflexive Causative)
　　　　monk-NOM　disciple-DAT　self　hair-ACC
　　　　kkakk-y-ess-ta
　　　　cut-**CAUS**-PST-DEC
　　　　'The monk had his disciple cut his hair.'

　　c. *i*　　*sinpal-un*　Tim-*eykey*　*phal-ly-ess-ta*　　　(Passive)
　　　　this　shoes-TOP　Tim-DAT　sell-**PASS**-PST-DEC
　　　　'These shoes were sold to Tim.'

(2) a. *mwun-i*　　*cecello*　*yel-ly-ess-ta*　　　　　(Spontaneous Middle)
　　　　door-NOM　by.itself　open-**MM**-PST-DEC
　　　　'The door opened by itself'

　　b. *i*　　*sinpal-i*　*cal*　*phal-li-n-ta*　　　　(Facilitative Middle)
　　　　this　shoes-NOM　well　sell-**MM**-PRES-DEC
　　　　'These shoes sell well.'

(3) a. *yuli-ka*　　*kkay-(e)cy-ess-ta*　　　　　(Spontaneous Middle)
　　　　glass-NOM　break-**MM**-PST-DEC
　　　　'The glass broke.'

　　b. *kunyeuy*　*elkwul-i*　*ppalkay-(e)cy-ess-ta*　　　(Inchoative Middle)
　　　　her　　　face-NOM　be.red-**MM**-PST-DEC
　　　　'Her face turned red.'

　　c. *i*　　*khal-i*　*cal*　*ssel-eci-n-ta*　　　　(Facilitative Middle)
　　　　this　knife-NOM　well　cut-**MM**-PRES-DEC
　　　　'This knife cuts well.'

(4) a. *pwul-i   kapcaki   kk(u)-**ecy**-ess-ta*   (Spontaneous Middle)

      light-NOM   suddenly   turn.off-**MM**-PST-DEC

      'The light turned off suddenly.'

    b. *mwumyeng-hwaka-tul-ey   uyhay   minhwa-ka*   (Passive)

      anonymous-painter-PL-DAT   by   folk.painting-NOM

      *kuly-**ecy**-ess-ta*

      paint-**PASS**-PST-DEC

      'The (Korean) folk-painting was painted by anonymous painters.'

There have been a number of debates on whether Korean *-eci* constructions are passive or middle. Many studies have identified *-eci* constructions as passive constructions (e.g. Seng 1976; C.G. Kim 1980; Bae 1986, 1988; S.J. Park 1984; Jeong 2002, 2006). In contrast, some studies have focused solely on the functions of *-eci* as a marker of middle constructions; for example, *-eci* has been identified as a marker of 'spontaneity' (Nam 2011), 'inchoativity' (Woo 1997), 'potentiality' (Bak 2007, Yeon 1994), and 'unintentionality' (Bak 2007). Recent findings from a diachronic study (Ahn & Yap 2017b) have in fact shown that voice marker *-eci* is used to form both middle and passive constructions, via semantic extensions of *-eci* from intransitive middle to transitive passive predicates, essentially through a process of valence increment.

The passive voice is often used to express adversity, with adversative passive markers attested in a wide range of languages, including Even, Japanese, Korean, Chinese, Burmese, Thai, Vietnamese, and Indonesian, among others (see Kuno 1973; Shibatani 1994; Baker 1992; Delbecque & Cornillie 2007: 144). In some languages, the adversative passive markers have further developed into generalized-neutral passive markers (see, for example, Abraham & Leisiö 2006 on Thai *thùuk* and Jing-Schmidt & Jing 2011 on Chinese *bei*). In this study, we will examine how Korean voice marker *-eci* has extended its range of use from adversative contexts to non-adversative ones as well, as it extends from middle to passive uses.

We will also address the question of whether there is an interaction between voice and tense-aspect-mood (TAM) among the *-eci* constructions. In earlier work, Ahn & Yap (2017b) noted that extensions of *-eci* within the middle voice domain (i.e. spontaneous > inchoative > facilitative uses) were partly facilitated by relaxations in the lexical semantic constraints on the predicates that could host suffix *-eci*, e.g. [+ telic predicates] > [- telic predicates]. In this study,

we will extend this line of investigation to examine whether a related temporal characteristic, namely grammatical tense (i.e. past, present and future marking), combines with *-eci* to influence its voice functions. An interesting hypothesis worth further exploring is whether tense-voice interactions correlate strongly with text-type and genre.

The objective of this paper then is two-fold: (1) to examine the extent to which Korean voice marker *-eci* has expanded from adversative contexts to non-adversative ones, within both the middle and passive voice domains; and (2) to examine whether grammatical tense interacts with the voice marking functions of *-eci*. We adopt a usage frequency analysis, based on data from the *Sejong* Contemporary Spoken Corpus.

The rest of this paper is organized as follows. Section 2 identifies the voice-marking functions of Korean suffix *-eci*, namely, its use as middle and passive markers. Section 3 briefly reviews the diachronic development of voice marker *-eci*, then examines whether there has been a change in the ratio of adversative and non-adversative uses of *-eci* over time (e.g. from Middle Korean to Modern Korean). Section 4 focuses on the usage frequency of *-eci* in present-day Korean, with special attention to the correlation between tense marking and voice functions (§4.1) and their interactional patterns across different text types/genres (§4.2). Section 5 concludes.

2. Middle and passive uses of Korean *-eci*

As mentioned earlier, previous studies have mainly focused on either the passive or middle voice marking functions of *-eci*. In this section, we briefly review the full range of functions of *-eci* as a voice marker, with particular attention to the similarities and differences between its middle and passive voice marking uses.

2.1 Korean middle marker *-eci*

The term 'middle voice' has been widely applied to denote a linguistic category whose function is to indicate that "the action or state [being described] affects the subject of the verb or his interests" (Lyons 1969: 373). This action or state is typically instantiated by an entity that is himself/herself/itself the affected patient or theme (Kemmer 1993; Calude 2004), as in the case of reflexives such as (5). Middle constructions are thus often single-participant constructions (i.e. intransitive), although some multiple-participant scenarios can be construed as alternations

and iterations of single-participant actions and qualify as middles, as with reciprocals such as (6).

(5)   *They washed themselves.*   (Reflexive Middle)

(6)   *They quarreled.*   (Reciprocal Middle)

As shown in (7), some languages like Modern Icelandic and French have morphological indicators of middle constructions (-*st* and -*se* respectively), whereas some languages such as English do not have formal morphological markers. Crucially, although the formal morphological indicators are varied, there is a clear semantic core of the middle voice, that is, 'subject affectedness' (Lyons 1969; Barber 1975; Klaiman 1982, 1988; Kemmer 1993). This semantic property of 'subject affectedness' in middle voice constructions can also be described in terms of 'low participant distinguishability' (Kemmer 1993: 27). Essentially, as Kemmer elaborates, middle voice constructions tend to exhibit lower participant distinguishability because the Initiating entity (i.e. the controller or conceived source of action) is the same as the Endpoint entity (i.e. the affected participant), and hence the initiator is in effect the affectee as well.

(7)   Modern Icelandic: *hannklæddi-**st*** 'he got dressed'
         French: *ce papier **se** recycle* 'this paper is recyclable'
         English: *the book sells well; the door opened*

                                                      (Kemmer 1993: 1-2)

Following Kemmer (1993), in this paper the formal marker used in the expression of middle voice will be termed as middle marker (or MM). Crosslinguistically, the middle construction is often divided into a variety of situation types, along dimensions such as body action, change in body posture, reflexives, naturally reciprocal events, spontaneous events, inchoative events, facilitative constructions, etc. (Valfells 1970; Faltz 1977; Kemmer 1993). The class of body action verbs typically includes washing and getting dressed, as seen in (8a), while verbs of change in body posture include verbs of lying down and standing up, as in (8b). The class of naturally reciprocal events includes verbs of greeting, embracing, fighting, and meeting, as in (8c), while the verbs of spontaneous events include the verbs of growing, rotting, drying out, falling apart, opening/closing, and disappearing, as in (8d) (Kemmer 1993: 16-19). Inchoative

events involve verbs derived from adjectives, as in (8e), while facilitative constructions are associated with the expression of intrinsic ability or quality of an object to undergo a particular process, as in (8f).

(8) a. body action type: Bahasa Indonesia **ber-**dandan 'get dressed'
     b. change in body posture: Rumanian *se ridica* 'arise'
     c. naturally reciprocal events: Latin ampplecto-*r* 'embrace'
     d. spontaneous events: French *se dissoudres* 'dissolve'
     e. inchoative: Turkish *hastal-**an*** 'get sick'
     f. facilitative: Kanuri **t**-*ai* 'it is potable'
         (see Valfells 1970; Faltz 1977; Kemmer 1993: 16-19 (a-d), 147 (f), 239 (e))

Of the various types of middle constructions shown in (8) above, Korean *-eci* can be used to express spontaneous, inchoative, and facilitative events (i.e. 8d-f). As seen in (9) and (10), spontaneous middle *-eci* constructions represent events construed as taking place of their own accord—in these two cases, 'the computer turning on and off' and 'the shoelace becoming undone'. The affected entities — such as *khemphyuthe* 'computer' in (9) and *i sinpalkkun* 'this shoelace' in (10) — are conceived as both Initiator and Endpoint. However, no volition is involved in the initiation of the event (see Kemmer 1993); rather the event is construed as occurring autonomously, as is the case with *khye-(e)cy* 'turn on' and *kk(u)-eci* 'turn off' in (9) and *phwul-ecy* 'become untied' in (10).

(9) *khemphyuthe-ka*   *catongulo*   *khye-**(e)cy**-ess-ta*   *kk(u)-**eci**-nun*
     computer-NOM   automatically   turn.on-**MM**-DEC   turn.off-**MM**-PRES:ATTR
     cungsang-i   *cacwu*   *palsayngha-pnita*
     problem-NOM   frequently   occur-DEC
     'The computer frequently turned on and off automatically.'

                                                                              (google[1])

(10) *ai kwu, i sinpalkkun-i way phwul-**ecy**-ess-na*

 DM this shoelace-NOM why untie-**MM**-PST-Q

 'Oops, how come this shoelace got untied?'

(*Sejong* ContemporaryWritten Corpus #3B100005)

Spontaneous middles also represent change-of-states. In examples (9) and (10) above, the middle marker *-eci* forms spontaneous middle constructions in which the computer in (9) repeatedly changed from a state of being 'turned on' to being 'turned off' again and again without human intervention, and the shoelace in (10) has changed from being 'tied' to being 'untied'.

The middle marker *-eci* can also be combined with adjectives to form inchoative intransitive verbs, i.e. verbs that specifically focus on the entry-point or initial phase of a newly-changed state, as seen in (11) and (12). The inchoative middle can further indicate a progressive change of state, as in the case of *kanuleci-* (Adj. *kanul-* + MM *-eci*) in (11) which conveys an incremental sense of 'getting thinner', and *caymisseci-* (Adj. *caymiss-* + MM *-eci)* in (12) which conveys an escalating sense of 'getting more interesting.' From an inherent lexical aspect (or *aktionsart*) perspective, both the inchoative middle and the spontaneous middle share in common a telicity ('endpoint') feature involving a change-of-state.

(11) *o moksoli-ka te kanul-**ecy**-e-yo?*

 INTJ voice-NOM more be.thin-**MM**-LNK-POL

 'Oh, does the voice get thinner?'

(*Sejong* Contemporary Spoken Corpus #7CM00008)

(12) A: *kulaytwu yosay tul-ese wuli-nala yenghwa manhi*

   at.any.rate these.days enter-as 1PL-country film a.lot

   *caymiss-**ecy**-ess-ci?*

   be.interesting-**MM**-PST-SFP

   'At any rate, these days, have the films in our country got more interesting?'

 B: *ung.*

   yes

   'Yes.'

(*Sejong* Contemporary Spoken Corpus #4CM00011)

Along with spontaneous and inchoative middles, *-eci* is also used in the expression of facilitative middles, which as noted in Kemmer (1993; see also Faltz 1977) include expressions indicating ease or difficulty of occurrence of an activity, as in (13), expressions involving quality judgments, as in (14), and expressions of intrinsic ability of an object to undergo a particular event or process, as in (15).

(13) *ku::~*   *hwacangsil-eyse*   *cakkwu*   *mwulki-ka*   *iss-nun*
     INTJ   restroom-LOC   repeatedly   moisture-NOM   exist-PRES:ATTR
     tey-se   *cal*   *nem-**eci**-n-tanun-kecyo*
     place-LOC   easily   go.over-**MM**-PRES-EVID-SFP
     'In restrooms, over and over again, in the damp places, it is said that people fall
     down easily.'

<div align="right">(Sejong Contemporary Spoken Corpus #8CM00002)</div>

(14) A: *i*   *polpheyn*   *aysse*   *saw-ass-te-ni*
       this   ballpoint.pen   carefully   buy-PST-RETRO-as
       Cayhak-oppa-ka   *mwe*   *lakule-nun-ci*   *a(l)-nya,*
       PN-elder.brother-NOM   what   say-PRES:ATTR-NMLZ   know-Q
       ya   *weynmanha-myen*   *hana*   *cangmanhay-la.*
       INTJ   be.possible-if   one   buy-IMP
       'As I chose and bought this ballpoint pen most carefully, do you know what
       Cayhak said? "Hey, if it's possible, buy a (good) one."'
     B: *mac-e*   *ce-key*   *cincca*   *ttak*   *cektangha-ci*   *anh-nya*?
       be.right-SFP   that.thing   really   right   be.suitable-NMLZ   NEG-Q
       '(You are) right, the ballpoint pen (you bought) is really good, isn't it?'
     A: *cal*   *ss(u)-**ecy**-e.*
       well   write-**MM**-SFP
       'It writes well.'

<div align="right">(Sejong Contemporary Spoken Corpus #4CM00005)</div>

(15) A: *hwullahwuphu-to*   *payk-pen*   *tolli-kwu*
          hula hoop-also   hundred-times   spin-and
          'I (usually) spin the hula hoop a hundred times.'

    B: *um   kuntey   cal   ha-tay   toykey.*
          yes   DM   well   do-SFP   extremely
          'Yes, you do extremely well.'

    A: *nay-ka   kumantwu-ki   cenkkaci-nun   an   ttel-**eci**-canha*
          1SG-NOM   stop-NMLZ   until-TOP   NEG   drop-**MM**-SFP
          'Until I stop (spinning the hoop), the hoop never falls (below my waist).'

    B: *oo   i   casinkam*
          INTJ   this   self-confidence
          'Oh, such self-confidence!'

                                    (*Sejong* Contemporary Spoken Corpus #8CM00007)

In (13), the middle marker *-eci* in combination with the verb *nemp-* 'go over' and the adverb *cal* 'easily' contributes to a facilitative middle construction that expresses the ease of occurrence of an action (*cal nem-eci-* 'falls down easily'). In (14), the facilitative middle construction *cal ssecye*, derived from a combination of the adverb *cal* 'well' + *ssecye* (*ssu-* 'write' + MM *-eci* + SFP *-e*), is associated with the speaker's expression of a quality judgment, in this particular instance referring to a ballpoint pen that 'writes well'. The facilitative middle construction in (15) involves the expression of intrinsic ability of the speaker to swirl the hoola hoop such that 'the hoop never falls [below the speaker's waist]'.

2.2. Korean passive marker *–eci*

As noted in section 2.1, Korean suffix *-eci* is employed to form a middle construction where (i) the subject is the affected entity, and (ii) the initiator of the event or process is the same as the affected participant or the end-point. As shown in (16) and (17), the suffix *-eci* is also used in the formation of passive constructions, where an affected entity is likewise the subject. However, in contrast with middle constructions, the Initiator and the Endpoint in passive constructions are distinct entities. In (16), the affected entity or the Patient is *choycho-uy yuniksu* 'the first UNIX', while the initiator of the event or the Agent is *peyl-yenkwuso-eyse khemphyuthe kwahakca-i-n Ken Thompson* 'Ken Thompson, who is the computer scientist at

Bell Labs.' Likewise, in (17), the affected entity or the Theme, *twu nwun-uy nophi-lul kyocengha-nun swuswul* 'the surgery to correct the height of both eyes', is not the initiator of the event. The initiator or the Agent is not overtly presented in (17) but can be understood and restored in the context.

(16) *choycho-uy   yuniksu-nun   peyl-yenkwuso-eyse   khemphyuthe*
     the.first-GEN   UNIX-TOP   Bell-Labs-LOC   computer
     kwahakca-i-n   Ken Thompson-eyuyhay   mantul-ecy-ess-ta.
     scientist-COP-PST:ATTR   Ken Thompson-by   make-**PASS**-PST-DEC
     'The first UNIX was made by the computer scientist Ken Thompson at Bell Labs.'
                         (*Sejong* Contemporary Written Corpus #2BH9961)

(17) *kwuknay-eyse   cheumulo   twu   nwun-uy   nophi-lul*
     domestic-LOC   for.the.first.time   two   eye-POSS   height-ACC
     kyocengha-nun   swuswul-i   hayngha-y(e)cy-ess-ta.
     correct-PRES:ATTR   surgery-NOM   do-**PASS**-PST-DEC
     'The surgery to correct the height of both eyes was done domestically for the first time.'
                         (*Sejong* Contemporary Written Corpus #2BA93A24)

Another important difference is that, unlike its passive counterpart, middle *-eci* constructions do not express any Agent, whether explicitly or implicitly. As shown in examples (13) to (15) earlier, there is no external Agent in the middle construction. On the other hand, there exists an Agent in the passive, regardless of whether it is expressed overtly or not (Keenan 1985), as seen in (16) and (17). In (16), the external Agent (*Ken Thompson*) appears overtly, whereas in (17), there is no overt Agent but the implicit Agent is understood to exist in the construction. Whereas the initiator of the event in the middle construction is at the same time the affected participant or endpoint (e.g. *the hoop* in (15)), the initiator of the event in the passive construction (e.g. *the scientist Ken Thompson* in (16) and *the doctor* in (17)) is not the same as the endpoint of the event, i.e. the affected participants *UNIX* in (16) and *the surgery* in (17) respectively.

Yet another difference is that passive *-eci* constructions frequently focus on the event or process that brings about the result state, which is not surprising given that passive constructions encode an Agent, as shown in (16) and (17), whereas middle *-eci* constructions

often express a result state that holds after some event or process, as in (18). In addition, facilitative middles which encode some intrinsic ability or quality share similarities with generic sentences, as shown in (19). This is consistent with Keyser and Roeper's (1984: 384) and Condoravdi's (1989: 17) general observation that middles are sometimes generic sentences. Hence, the facilitative middles are restricted to the simple present tense like generic sentences, or more often to bare forms unaccompanied by tense markers (see Table 1 and more detailed discussion in §4.1).

(18) *nasa-ka*   *cecello*   *phwul-**ecy**-ess-ta*
      screw-NOM   by.itself   loosen-**MM**-PST-DEC
      'The screw loosened by itself.'

                                                      (google[2])

(19) *sonthop-i*   *cal*   *pwus(u)-**ecy**-e-yo!*
      nail-NOM   easily   break-**MM**-LNK-POL
      '(Finger) nails break easily.'

                                                      (google[3])

In this section, we have identified the voice marking functions of Korean suffix *-eci*, focusing on the three situation types associated with middle *-eci* constructions (namely, spontaneous, inchoative and facilitative) and differentiating between the middle and passive constructions.

3. Development of voice marker *-eci* from adversative to non-adversative contexts

Previous studies have noted that in some languages, the passive morphology has developed out of the middle morphology, especially out of 'anticausative' (or spontaneous) uses of the middle voice marker, where the subject is an affected entity, as it is in the passive (Klaiman 1988; Haspelmath 1987, 1990: 35; see Heine and Kuteva 2002). This is the case with Teso *-o(s)/-a(s)* (Hilders & Lawrance 1956: 52ff.), North !Xun */'é* (Heine and Kuteva 2002; Bernd Heine, field

---

[2]   https://www.jungsu.kopo.ac.kr/board/download3.asp?board=233&post
[3]   https://www.youtube.com/watch?v=IskUNr63bDA

notes), Russian *-sja* and Danish *-s* (Haspelmath 1990: 43), and Korean *-eci*. Korean suffix *-eci,* which has been used as a middle voice marker since the 15th century (Middle Korean), has subsequently developed into a passive marker in the 18th century (Early Modern Korean) (see Ahn & Yap 2017b). As we shall see in this section, the expansion of *-eci* constructions within the middle voice domain (i.e. spontaneous > inchoative > facilitative uses), as well as the extension of *-eci* constructions from the middle domain to the passive domain, was accompanied by gradual relaxations of the adversity constraint, such that *-eci* constructions could gradually express not only adversative semantics but also non-adversative ones.

Etymologically, the Korean voice marker *-eci* is derived from the combination of the postverbal infinitival suffix *-e* (or its phonological variant *-a*) and an unaccusative intransitive verb *ti-* 'fall, collapse, or disappear' (Ko 1997; Lee 2001; Jeong 2006) within a V_1-*e-ti* serial verb construction. Later this construction developed into a spontaneous middle, with tokens attested as early as the 15th century. The reanalysis of the V_1-*e-ti* serial verb construction into a V_1-*eti* ~ V_1-*eci* spontaneous middle construction was facilitated by the semantic affinity between the unaccusative verb *ti-* 'fall, disappear' and spontaneous *-eci* constructions. Both *ti-* predicates and spontaneous *-eci* constructions are intransitive and involve a subject-affectedness plus sudden change-of-state reading. This is illustrated in (20), where both serial verb construction *sot-a-ti-* (pour-LNK-fall) and spontaneous middle *sot-ati-* (pour-MM) yield the same interpretation: '(the water of the ponds) has all poured away'.

(20) *ilcel   kangha-i-mye   nayh-i-mye   wumul-i-mye   mos-i*
     all   river-LNK-CONN   stream-LNK-CONN   well-LNK-CONN   pond-NOM

     *ta   sot-**a-ti**-ye /sot-**ati**-ye   mul-i   ta   yewi-o*
     all   pour-LNK-fall-LNK/pour-**MM**-LNK   water-NOM   all   be.dry-CONN

     'All the rivers, streams, wells, and ponds are dry.'

     (*Lit*. 'The water of all the rivers, streams, wells, and ponds has poured away and they are (now) all dry.')

                (1447, *Seokposangcel* 23.txt (19); cited in Ahn & Yap 2017b: 445)

Through extended use (via various types of serial verb constructions) and subsequent 'semantic bleaching', a process by which more abstract grammatical meanings arise (see Hopper & Traugott 2003; Eckardt 2006; *inter alia*), *-ti* (as well as its phonological variant *-ci*) in *-ati~-aci/-ety~-eci* voice-marking constructions loses the adversative sense of 'fall, collapse,

disappear' in some contexts and acquires a more generalized meaning of 'change of state', as seen in unergative intransitive verbs with non-adversative readings such as *ptuyyena(li)-* 'jump out' in (21).

(21) *elAm-i*   *muntuk*   *phul-**ety**-e*   *koki*   *is-ye*
　　　ice-NOM   suddenly   undo-**MM**-because   fish   exist-LNK
　　　ptuyyena(li)-kenal
　　　jump-CONN
　　　'Since the ice suddenly melted (< 'Since the surface of the ice suddenly broke'), fish
　　　jumped out of the water.'
　　　　　　　　　　(1617, *Tongkwuksinsoksamkanghayngsilto*; cited in Ahn & Yap 2017b: 446)

This development from an adversative marker to a generalized neutral voice marker is also found in other languages. In Thai, for example, the adversative passive marker *thùuk* has undergone meaning changes along the cline 'to touch, hit on the point' > 'to undergo (an unfavourable experience)' > adversative passive > non-adversative passive (Narrog & Heine 2011: 538). The change from adversative to non-adversative passive in Thai is accompanied by phonological and morphosyntactic tightening: there is no intervening element between *thùuk* and the modified verb (Prasithrathsint 2006; see also Narrog & Heine 2011). A tightening process can also be seen in the *sot-a-ti > sot-ati* development for Korean voice marker *-eci*.

The adversative semantics of the source lexeme *ti-* 'fall, collapse, disappear', on the other hand, is often retained in the spontaneous marker *-eti*. This inheritance is consistent with a robust 'principle of persistence' commonly seen in language change, whereby "details of [a form's] lexical history may be reflected in constraints on its grammatical distribution" (Hopper 1991: 22). Our analysis of the *Sejong* Contemporary Spoken Corpus reveals that 88% (658 out of 748 tokens) of spontaneous middle *-eci* constructions co-occur with verbs with adversative semantics. Examples of such verbs are *ttel-*'drop', *ccic-*'tear', *hel-* 'wear out', *kkunh-*'cut', *kkay-* or *kesk-* 'break', and *thul-*'twist'. These spontaneous constructions often involve adverse consequences for their subject, as shown in (22).

(22) *motin   pAlAm-i   nil-e   cip-to   hAyapAli-mye   namo-to*
     severe   wind-NOM   blow-and   house-also   tear.down-CONN   tree-also

     *kesk-**eti**-mye*

     break-**MM**-CONN

     'As the severe wind blew, a house got torn down and a tree collapsed.'

                               (1447, *Sekposangcel* 23: 22)

Over time, as the use of voice marker *-eci* extended to a wider range of verb/predicate types (e.g. unaccusative > unergative > adjective), the adversative meaning of the source lexeme *-ti* became increasingly bleached and inchoative middle *-eci* no longer necessarily came to coincide with adjectives referring to adversative states, or at least states perceived as unfortunate or problematic for the speaker. As seen in (23), inchoative middle *-eci* can co-occur with adjectives such as *himtul-* 'hard, difficult' referring to an adverse state, but as seen in (24), the inchoative middle *-eci* can also co-occur with non-adverse adjectives such as *masiss-* 'delicious'. Example (23) refers to an adversative context, where a state of affairs (in this case, 'it is getting more difficult to make friends') is signaled by the speaker as problematic.[4] On the other hand, example (24) refers to a context where the cold noodle dish in a particular restaurant is getting more delicious than before—a consequence which would be considered far from adversative, and in fact rather beneficial and highly desirable to the speaker.

(23) *nai   tul-myense   cemcem   salam   sakwi-ki-ka*
     age   get-as   gradually   man   make.friends-NMLZ-NOM

     *himtul-**ecy**-e*

     be.difficult-**MM**-IE

     'As we get older, it gets more difficult to make friends.'

                           (*Sejong* Contemporary Spoken Corpus # 4CM00089)

(24) *yeki   nayngmyen   te   masiss-**ecy**-ess-ta   yeysnal-pota*
     here   cold.noodle   more   be.delicious-**MM**-ANT-DEC   old.time-than

     'Cold noodle (in this restaurant) has got more delicious than before.'

---

[4] This is similar to the English adversative *get*-passive (see Chappell 1980 and Carter & McCarthy 1999).

Passive uses of *-eci* emerged later in the 18th century (Early Modern Korean) as *-eci* constructions extended from intransitive predicates to transitive ones, as seen with the transitive verb *kkunh-* 'cut' in (25). There are also some semantic links between middle and passive *-eci* constructions: both constructions lack a volitional subject, and inchoative middles in particular often share with passives a resultative interpretation, which allows for *-eci* to extend from inchoative to passive uses. This development is also consistent with a robust typological tendency in which resultatives frequently develop passive functions (see Bybee, Perkins & Pagliuca 1994: 68; Talmy 1985: 92; Nedjalkov & Jaxontov 1988: 49; Fleisher 2006: 229).

(25) *cyokha-uy*   *kantyang-i*   *ecey*   *nal-uy*   *moncyes*

      nephew-DAT   liver.bowels-DAT   yesterday   day-LOC   first

      *kkunh-**ecy**-es[5]-nAncila*

      cut-**PASS**-PST-SFP

      'Yesterday, my nephew felt the arrows of heartbreak first.'

      (*Lit.* 'Yesterday, the liver and bowels of my nephew were cut first (by the arrows of heartbreak).')

                (18th century, *ulpyengyenhaynglok*8.txt(76); cited in Ahn & Yap 2017b: 452)

By the 20th century, *-eci* also made further extensions within the middle voice domain, giving rise to facilitative uses, as seen in (26). As noted in earlier works (e.g. Kemmer 1993), the rise of facilitatives is typically dependent on a process of 'subjectification', whereby the speaker encodes meanings into his/her utterances that express his/her attitudes and beliefs (see Traugott 1989, 1995). As seen in (26a) and (26b), the former reproduced from (19) in §2, the speaker's qualitative judgment of spontaneous and inchoative events is frequently expressed by adding adverbials, such as *cal*, which can mean 'easily' or 'well', with the absence of tense marking inducing a generic interpretation that is compatible with potential and abilitative readings. Whereas (26a) expresses a negative evaluation, (26b) expresses a positive one. Both

---

[5] The past tense marker was spelled as *-es* instead of *-ess* prior to the announcement of the Proposal for Unified Korean Orthography in 1933.

negative and positive evaluations are possible because *-eci* sometimes still retains but is generally no longer bound by the adversative semantics of its source lexeme *ti-* 'fall'.

(26) a. *sonthop-i   cal   pwus(u)-**ecy**-e-yo!*   (=19)
          nail-NOM   easily   break-**MM**-LNK-POL
          '(Finger) nails break easily.'

     b. *i   neyil   pholliswi   limwupe-ka   cal   ciw-**ecy**-e-yo!*
          this   nail   polish   remover-NOM   well   remove-**MM**-LNK-POL
          'This nail polish remover works well.'

Both the passive and facilitative uses of *-eci* have also undergone semantic generalization, and their usage is not confined to adversative contexts, as shown in (27) and (28). In (27), passive *-eci* co-occurs with the verb *ilwu-* 'make', which does not signify adversative semantics, nor is the context of use adversative in nature. The example refers to a context where the state of affairs (namely, the presentation and discussion being conducted on the development of various types of teaching materials as well as a forthcoming learners' dictionary) is not signaled by the speaker as adversative or problematic. As shown in (28), the facilitative middle *-eci* can likewise coincide with a non-adversative context, where *-eci* implies the inherent benefit of the habit of walking side-by-side holding hands, namely, that one would then not easily stumble and fall.

(27) *ecey   chesccay-nal-ey-nun,   e~   chespenccay   sseysyen-ulo,*
      yesterday   first-day-LOC-TOP   FIL   first   session-as
      e~   kicho-yenkwu   pwunkwa-eyse   e~   hyencay
      FIL   basic-research   subcommittee-DAT   FIL   present
      *ilwu-**eci**-koiss-nun   kakcong   kyocay*
      make-**PASS**-PROG-ATTR   all.sorts.of   teaching.materials
      kaypal-kwa   kutaumey   haksupsacen   kaypal-uy
      development-with   next   learners.dictionary   development-GEN
      hyenhwang-eytayhayse,   e~   palphyo-wa   kuliko   cinciha-kwu
      situation-about   FIL   presentation-with   and   be.serious-and
      *hwalpalha-n   tholon-i   ilwu-**ecy**-ess-supnita.*
      be.active-PST:ATTR   discussion-NOM   make-**PASS**-PST-SFP

'Yesterday, on the first day, uh … as the first session, uh … concerning the presentation being made … uh … by the basic research committee, on the development of all sorts of teaching materials along with the situation about an upcoming learners' dictionary, uh … a presentation and a serious and active discussion **was made**.'

<div align="right">(Sejong Contemporary Spoken Corpus #4CM00116)</div>

(28) *ce-nun-yo*   *ceyil*   *cohaha-nun*   *key*

1SG (< DEM.DIST)-TOP-POL   best   like-PRES:ATTR   NMLZ

mwe-nya-myen-yo   *son-cap-ko*   *phyenghayngulo*   *ka-nun*

what-PRT-if-POL   hand-hold-and   in.parallel.with   go-PRES:ATTR

ke-eyyo   *phyenghayngulo*   *eti-lul*   *ka-tun-ciyo,*   *son-cap-ko*

NMLZ-POL   in.parallel.with   where-ACC   go-may-POL   hand-hold-and

ka-nun   *salam-un-yo,*   *nem-**eci**-ci*   *anh-supnita.*

go-PRES:ATTR   man-TOP-POL   go.over-**MM**-NMLZ   NEG-SFP.POL

'As for me, what I like most, if I may say so, is to walk side-by-side holding hands. Whenever one walks in parallel (with others), the one who walks holding hands (with others) does not fall.'

<div align="right">(Sejong Contemporary Spoken Corpus #5CM00072)</div>

Our analysis, based on *-eci* tokens from the *Sejong* historical corpus, reveals that initially *-eci* constructions were often associated with adversative readings (with 50 out of 54 *-eci* tokens in Middle Korean yielding an adversative interpretation), but over time the adversity constraint was relaxed and the use of *-eci* middles and passives was extended to verbs without any inherent adversative reading (e.g. *masiss-* 'be delicious' in (24)). Extensions of *-eci* to transitive verbs such as *ilwu-eci* 'gets achieved/done' in (27), which are neither intransitivized nor adversative, further paved the way for the emergence of *-eci* as a semantically bleached and increasingly prolific 'general' passive marker, which explains to some extent why the passive use was the first function of *-eci* to have caught the eye of earlier researchers (e.g. Choi 1961; C.G. Kim 1980; Bae 1986; Jeong 2002).[6] The availability of non-adversative uses of *-eci*

---

[6] Another possible reason is that, until fairly recently, causative and passive constructions were more extensively researched and much better understood than middle constructions, both within formal and functionalist frameworks (e.g. Shibatani 1976, 1985; Keenan 1985; Kemmer 1993).

spontaneous and inchoative middles in Modern Korean helped to pave the way for facilitative middles in Contemporary Korean, with potentiality and ability readings often expressing beneficial rather than adversative outcomes.

Judgments about adversative readings in contemporary Korean are not emergent solely from the semantics of the verbs or adjectives preceding *-eci* but are also emergent and grounded in the interaction. (29) below is a clear instance of this, where the speaker's approval or disapproval of the evaluation system of a non-profit organization can be gauged from the context, and not just from the verb *ilwu-* 'make, achieve' followed by *-eci.* As we can see in (29), the verb *ilwu-* 'make, achieve' does not have inherent adversative semantics, but the adversative reading of the passive *-eci* construction emerges from the context where, in this particular instance, the evaluation of achievements in the said non-profit organization gets done by rule of thumb, which is construed by the speaker as inappropriate, problematic, undesirable, and unfortunate, and hence in clear need of revision.

(29) P1: *kiep-kathun   kyengwu-ey-nun   kulen   maynyuel-ina,*
          corporation-like   case-LOC-TOP   such   manual-or
          sengkwa-lul   ku,   phyengka-halswuiss-nun   pangpep-tul-
          accomplishment-ACC   FIL   evaluate-can-PRES:ATTR   way-PL-NOM
          ta   iss-canha.
          all   exist-SFP
          'In the case of corporations, there are some manuals or ways to evaluate accomplishments.'

     P2: *e,*
          yes
          'Right,'

     P1: *kuntey   piyengli-tanchey-kathun   kyengwu-ey-nun,*
          by.the.way   nonprofit-organization-like   case-LOC-TOP
          *kukey   nemwu   cwumekkwukwusik-ulo   ilwu-**eci**-kwu,*
          that.thing   too   rule.of thumb-by   achieve-**PASS**-and
          'By the way, in the case of nonprofit organizations, it (=the evaluation) gets done by rule of thumb.'
          um   kulen   ke-ey   tayhayse,   maynyuel-ina   phyengka
          FIL   such   thing-LOC   about   manual-or   evaluation

   pangpep-ey *tayhayse* *komin-haypwa-yatoy-ci-anh-nya*

   way-LOC   about   care-try-should-NMLZ-NEG-IE

   'Um, (the nonprofit organization) should try to think about ways to evaluate
(achievements), shouldn't they?'

                 (*Sejong* Contemporary Spoken Corpus #6CM00077)

   The role of context on adversative vs. non-adversative interpretations of passive constructions can be seen in other languages as well. Consider the Japanese indirect or possessive passives, which are generally believed to encode adversative meaning (Shibatani 1994; Oshima 2003; Ono 2013). As seen in (30), the indirect passive construction has a connotation that the subject *Taroo* is adversely affected by the event denoted by the predicate, in this case *kodomo-ni nak-are-ta* 'the crying of the child' (Ono 2013: 313). In (31a), the subject *Taro* is adversely affected by the action or event denoted by the verbal predicate *Hanako-ni kami-o kir-are* 'had (his) hair cut by Hanako', but as seen in (31b), if *Taro* had benefited from the hair-cutting, a benefactive construction with *-te morau* rather than the passive *-are* would have been used (Oshima 2006: 148).

(30) *Taroo-ga*   *kodomo-ni* *nak-**are**-ta*

   Taro-NOM child-DAT cry-**PASS**-PST

   'Taro was adversely affected by the child's crying.' (Ono 2013:313)

(31) a. *Taro-ga*   *Hanako-ni* *kami-o*   *kir-**are**-ta.*

    Taro-NOM Hanako-DAT hair-ACC cut-**PASS**-PST

    'Taro had his hair cut by Hanako.' (Oshima 2006: 148)

   b. *Taro-ga*   *Hanako-ni* *kami-o*   *kit-**te-morat**-ta.*

    Taro-NOM Hanako-DAT hair-ACC cut-GER-**BEN:PASS**-PST

    'Taro had his hair cut by Hanako.' (Oshima 2006: 148)

   However, the connotation of adversity conveyed by the Japanese passive *-are* can also be easily cancelled with contextual information as in (32), just as the negator *anh-* cancels out the adversity associated with the Korean middle construction *nem-eci-ci* 'falling or tumbling over') as shown in (28). In (32), the Japanese expression *sarani otokomae-ni nat-ta* 'became more good-looking' sounds entirely natural in a situation where *Taro* voluntarily had his hair cut by

Hanako in order to look better (Oshima 2006: 149). Thus, judgments about adversative readings in contemporary Korean and Japanese are not emergent solely from the semantics of the verbs or adjectives preceding the voice markers but are emergent and grounded in the context and interaction as well.

(32) *Taro-wa*   *Hanako-ni*   *kami-o*   *kir-**are**-te*   *sarani*
     Taro-TOP   Hanako-DAT   hair-ACC   cut-**PASS**-GER   more

     otokomae-ni   *nat-ta.*
     handsome   become-PST

     'Taro became more good-looking, having had his hair cut by Hanako.'

                                         (Oshima 2006: 149)

4. Usage frequency of *-eci* middle and passive constructions

In this section, we examine the usage frequency of *-eci* constructions in Contemporary Korean, with special attention to the distribution of grammatical tense and voice functions across text-type/genre. Our analysis is largely based on data from the *Sejong* Contemporary Spoken Corpus, which comprises 805,646 words. This spoken corpus consists of 200 naturally-occurring conversations collected from various settings such as college students' conversations on campus, church parishioners' gatherings, high school students' conversations, dialogues in a restaurant, telephone conversations, lectures, monologues, sermons, broadcast talks, etc.[7] These discourses were transcribed as part of the 21st Century *Sejong* Project.

4.1 Distribution of tense-aspect marking and voice functions in *-eci* constructions

In terms of tense-aspect marking, *-eci* can occur in the following morphosyntactic environments: with no tense morpheme, as in (33a);[8] with past tense or perfective aspect

---

[7] The text types vary in terms of total word counts. The word counts within the informal sub-corpus are as follows: daily conversations (201,199 words); theme-based conversations (131,428 words); telephone conversations (13,651 words); conversations in class (36,906); group studies (13,446 words); monologues in storytelling format (123,111 words); and discussions (26,229 words). Within the formal sub-corpus, the word counts are: lectures (180,440 words); presentations (25,373 words); sermons (14,062 words); sports broadcasts (13,559 words); other broadcast talks (5,649 words); and opening/closing speeches (5,179 words).

[8] Voice marker *-eci* can occur with no tense morpheme, that is to say *-eci* can be directly followed by linkers such

morpheme *-ess* (33b), present tense morpheme *-n* (33c), present attributive morpheme *-nun* (33d), past attributive morpheme *-n* (33e), and future attributive morpheme *-l* (33f).

(33) a. *sal-ki-ka*   *cemcem*   *te*   *himtul-**eci**-ko*

         live-NMLZ-NOM   gradually   more   be .difficult-**MM**-and

         sakmakha-y(e)cy-ess-ta

         be.dreary-MM-PST-DEC

         'It gradually got more difficult and dreary to live.'

   b. *sal-ki-ka*   *cemcem*   *himtul-**ecy-ess**-ta*

         live-NMLZ-NOM   gradually   be.difficult-**MM**-**PST**-DEC

         'It gradually got more difficult to live.'

   c. *sal-ki-ka*   *cemcem*   *himtul-**ecy-n**-ta*

         live-NMLZ-NOM   gradually   be.difficult-**MM-PRES**-DEC

         'It gradually gets more difficult to live.'

   d. *cemcem*   *himtul-**eci-nun***   *seysang*   *sal-i*

         gradually   be.difficult-**MM-PRES:ATTR**   life   live-NMLZ

         'life (lit. living a life) which gradually gets more difficult'

   e. *olay-ceney*   *himtul-**eci-n***   *seysang*   *sal-i*

         long-ago   be.difficult-**MM-PST:ATTR**   life   live-NMLZ

         'life (lit. living a life) which got more difficult long ago'

   f. *te*   *himtul-eci-l*   *seysang*   *sal-i*

         more   be.difficult-**MM-FUT:ATTR**   life   live-NMLZ

         'life (lit. living a life) which will get more difficult'

The usage frequency distribution of *-eci* in terms of tense-aspect marking and voice functions is highlighted in Table 1.

---

as *-ko, -e, -na,* etc. or sentence final particles such as *-ci, -e,* etc.

Table 1. The usage frequency distribution of -*eci* in accordance with their inflectional forms and functions in *Sejong* Contemporary Spoken Corpus

	Middles			Passive	Total no. of -*eci* tokens	
	Spontaneous	Inchoative	Facilitative			
-*eci* (*eci* + no tense morpheme)	316	132	19	77	544	(40.2%)
-*ecy-ess* (*eci* + Past/perfective -*ess*)	193	206	0	50	449	(33.1%)
-*eci-n* (*eci* + Present tense -*n*)	30	7	1	10	48	(3.5%)
-*eci-nun* (-*eci* + Present attributive -*nun*)	69	16	0	20	105	(7.8%)
-*eci-n* (-*eci* + Past attributive -*n*)	54	13	0	52	119	(8.8%)
-*eci-l* (-*eci* + Future attributive -*l*)	65	22	0	3	90	(6.6%)
Total no. of -*eci* tokens	727	396	20	212	1,355	(100.0%)
	(53.7%)	(29.2%)	(1.5%)	(15.6%)	(100.0%)	

As seen in Table 1, -*eci* is most frequently used without a tense morpheme (544 tokens out of a total of 1,355 tokens, i.e. 40.2% of the time). Although -*eci* has been used as a middle voice marker without tense marking since the 15th century, its occurrence with tense marking is a recent phenomenon. Table 1 shows that apart from the bare form without tense marking, spontaneous and inchoative middle uses of -*eci* also frequently occur with past/perfective -*ess*, and also take other tenses such as present and future, in both attributive clauses (i.e. dependent noun-modifying or relative clauses) as well as conclusive clauses (i.e. final clauses that are often accompanied by sentence-enders as finite clause markers).[9] On the other hand, facilitative uses of -*eci* are almost always used without tense marking (95% of the time; 19 out of 20 tokens), with occasional co-occurrences with present tense morpheme -*n*. This is consistent with the function of facilitative -*eci*, which is to help signal the speaker's subjective evaluation of the inherent (and hence timeless and generic-like) properties of the topic/subject NP, as in *i pheynun cal ssecinta* 'This pen writes well'.

In terms of voice functions, -*eci* is used as a middle marker far more frequently than as a passive marker (84.4% vs. 15.6%, almost 5.5 times higher), and among the three middle

---

[9] The term 'conclusive' is used in Japanese linguistics to make a formal distinction between main finite clauses and dependent relative clauses, the latter being 'attributive' in form.

marking functions, *-eci* is employed in spontaneous constructions more frequently than in inchoative and facilitative constructions, in the ratio of approximately 36:19:1 (53.7% vs. 29.2% vs. 1.5%).

The usage frequency distribution of *-eci* constructions in Table 1also synchronizes with our earlier diachronic observation that *-eci* has developed from a middle voice marker to a passive marker, more specifically from spontaneous middle (53.7%) to inchoative middle (29.2%) and then extending into passive (15.6%), before further extending into yet another type of middle construction, namely the facilitative middle (1.5%). The uses of *-eci* as spontaneous and inchoative middle markers are still highly productive in contemporary Korean, and its development into a passive marker is no longer a controversial issue. The grammaticalization of *-eci* as a facilitative middle marker, on the other hand, is still at a relatively incipient stage.

4.2 Distribution of voice-marking functions of *-eci* across text types

Our analysis of *-eci* tokens in the *Sejong* Contemporary Spoken Corpus indicates that the usage frequency distribution of middles and passive vary across text type. As shown in Table 2, *-eci* (with and without tense-aspect marking) is used as a middle and passive marker in both formal and informal texts (each comprising a total of 322,811 words and 482,835 words respectively), with *-eci* occuring with approximately similar frequency in both formal and informal texts— i.e. 628 tokens/322,811 words (or 0.19 tokens per 10,000 words) in formal texts, and 727 tokens/482,835 words (or 0.15 tokens per 10,000 words) in informal texts.

Table 2. Functional distribution of *-eci* across text types in the *Sejong* Contemporary Spoken Corpus[10]

	Middles			Passive	
	Spontaneous	Inchoative	Facilitative	Passive	
Formal texts					
Lecture	228 (12.64)[11]	98 (5.43)	7 (0.38)	96 (5.32)	
Reports and Presentation	27 (10.64)	12 (4.73)	0	62 (24.44)	
Sermon	13 (9.24)	1 (0.71)	1 (0.71)	5 (3.56)	
Sports-broadcast	25 (18.44)	12 (8.85)	0	1 (0.74)	
Other broadcast talk	14 (24.78)	3 (5.31)	0	3 (5.31)	
Opening/closing speech	12 (23.17)	3 (5.79)	0	5 (9.65)	
Sub-total no. of *-eci* tokens (N=628 per 322,811 words)	319	129	8	172	
Informal texts					
Daily conversation	192 (9.54)	112 (5.57)	4 (0.20)	3 (0.15)	
Telephone conversation	6 (4.40)	12 (8.79)	2 (1.47)	5 (3.66)	
Conversation (theme-based)	48 (3.65)	55 (4.18)	1 (0.08)	5 (0.38)	
Conversation in class	32 (8.67)	22 (5.96)	2 (0.54)	7 (0.19)	
Group Study	1 (0.74)	9 (6.69)	0	1 (0.74)	
Monologue (story-telling)	116 (9.42)	49 (3.98)	3 (0.24)	15 (1.22)	
Discussion	13 (4.96)	8 (3.05)	0	4 (1.53)	
Sub-total no. of *-eci* tokens (N=727 per 482,835 words)	408	267	12	40	
Total no. of *-eci* tokens	727	396	20	212	

Table 2 also reveals that *-eci* occurs most frequently as a spontaneous marker, both in formal and informal texts. This indicates that *-eci* is most frequently used to express events occurring spontaneously without human intervention. On the other hand, facilitative *-eci*, which expresses intrinsic ability or quality of an entity, has the lowest frequency in formal texts as well as informal texts. This may be because inherent properties are mentioned less frequently in discourse compared to events and situations, which tend to be more susceptible to change over time.

---

[10] The text types vary in terms of total word counts. Within the formal sub-corpus, the word counts are: lectures (180,440 words); presentations (25,373 words); sermons (14,062 words); sports broadcasts (13,559 words); other broadcast talks (5,649 words); and opening/closing speeches (5,179 words). The word counts within the informal sub-corpus are as follows: daily conversations (201,199 words); theme-based conversations (131,428 words); telephone conversations (13,651 words); conversations in class (36,906); group studies (13,446 words); monologues in storytelling format (123,111 words); and discussions (26,229 words).

[11] The numbers are normalized based on the number of *-eci* tokens divided by the number of words for the relevant genres, then multiplied by 10,000.

In terms of text type/genre, in formal texts, *-eci* occurs with relatively higher frequency as a spontaneous marker in 'opening or closing speeches' and 'broadcast talks', while it is used more frequently as a passive marker in 'reports and presentations'. In informal texts, *-eci* occurs slightly more frequently as a middle marker in 'narrative monologues' and 'casual conversations' (e.g. 'daily conversations', 'telephone conversations' and 'conversations among classmates'). These usage frequency patterns reveal a distributional bias in the functions of *-eci* across text types/genres, with passive *-eci* constructions being favored in reports and presentations where objectivity and psychological distancing on the part of the speaker is more highly valued, while spontaneous and inchoative middle *-eci* constructions are preferred in genres involving addressee-oriented talk that focuses on dynamic narratives of past or ongoing events, as well as (presumed) familiarity and shared knowledge between speaker and hearer.

It is also worth noticing, as seen from Table 3, that the attributive forms of *-eci* (i.e. *-ecinun*, *-ecin* and *-ecil*) are used with quite similar frequency in both formal (120 tokens) and informal texts (119 tokens) within the middle voice marking domain, more specifically with spontaneous and inchoative *-eci* constructions but not facilitative ones; however, these attributive forms are skewed toward formal texts (61 tokens) compared to informal texts (14 tokens) for passive uses. As noun-modifying constructions, these attributive *-eci* constructions provide additional specifying and background information in discourse, both in formal and informal texts. In passive *-eci* constructions, these attributive forms are frequently used to help increase the formal tone of the text. This comes about because the attributive forms are more complex structures that provide additional background information that are useful in commentaries and evaluative inferences.

Table 3. Functional distribution of attributive *-ecinun*, *-ecin* and *-ecil* across text types in the *Sejong* Contemporary Spoken Corpus

	Middles			Passive
	Spontaneous	Inchoative	Facilitative	
Formal texts				
-ecinun	35 (1.08)[12]	6 (0.19)	0	17 (0.53)
-ecin	22 (0.68)	2 (0.06)	0	41 (1.27)
-ecil	41 (1.27)	14 (0.43)	0	3 (0.09)
No. of attributive tokens	98	22	0	61
Informal texts				
-ecinun	34 (0.70)	10 (0.21)	0	3 (0.06)
-ecin	32 (0.66)	11 (0.23)	0	11 (0.23)
-ecil	24 (0.50)	8 (0.17)	0	0
No. of attributive tokens	90	29	0	14

5. Conclusion

In this paper, we addressed the question of whether *-eci* constructions serve middle or passive functions, or both. Our usage frequency analysis of data from the *Sejong* Contemporary Spoken Corpus reveals that *-eci* is used in present-day Korean not only as a passive marker but as a middle marker as well, and contrary to the traditional notion that *-eci* is essentially a passive marker, in real usage, *-eci* is far more frequently used as a middle marker than a passive marker (84.4% and 15.6% respectively based on the *Sejong* corpus, in the ratio of approximately 5.5:1).

Three types of middle functions were identified for *-eci*—namely, spontaneous, inchoative, and facilitative. Middle *-eci* constructions differ from passive ones in terms of valence (i.e. number of core arguments). In middle constructions, the Initiator of the event or process is the same as the affected participant (also referred to as the End-point), whereas the Initiator and

---

[12] The numbers are normalized based on the numbers of *- ecinun*, *-ecin* and *-ecil* tokens divided by the number of words for the relevant text, then multiplied by 10,000.

the End-point in passive constructions are distinct entities.

Previous studies have shown that the passive voice is often used to express adversity, and in some languages, the adversative passive markers have further developed into generalized-neutral passive markers (e.g. Thai *thuuk*). Korean middle and passive voice marker *-eci* has also extended its use from adversative to non-adversative contexts. The unaccusative verb *ti-* initially conveyed adversative meanings such as 'fall', 'collapse' or 'disappear', and the adversative semantics of this source lexeme *ti-* was often retained in the spontaneous marker *-eti*, which later was phonologically weakened to *-eci*. Over time the adversity constraint was relaxed and the uses of *-eci* middles and passives were extended to contexts without adversative reading. Our findings also reveal that judgments about adversative readings in contemporary Korean are not emergent solely from the semantics of the verbs or adjectives preceding *-eci* but are emergent and grounded in the interaction as well. Moreover, adversative readings often evoke the speaker's subjective evaluation, and this in turn contributes to the rise of facilitative uses of *-eci*, which essentially expresses the speaker's judgment of the quality or potential of an entity, whether it be an event (e.g. the act of doing something, as in *i sanccumiya nato ollakacinta* 'Climbing this mountain is easy for me') or a participant (e.g. instrument or means, as in *i pheynun cal ssecinta* 'This pen writes well').

We also examined the distributional characteristics of *-eci* in present-day Korean to address the question of whether there is an interaction between voice and tense-aspect-mood (TAM) among the *-eci* constructions. In terms of tense-aspect marking, *-eci* can occur with no tense morpheme, with past/perfective morpheme *-ess*, present tense morpheme *-n*, past attributive morpheme *-n*, present attributive morpheme *-nun*, and future attributive morpheme *-l*. Interestingly, in Contemporary Korean, *-eci* is most frequently used without a tense morpheme, which is consistent with the general tendency for middles to focus more often on the inherent semantics of the subject or on the event/situation instead of its temporal location (i.e. tense marking). Regarding its usage frequency in terms of text-type/genre, *-eci* occurs most frequently in spontaneous middle constructions, both in informal and formal texts, and least frequently in facilitative middle constructions, which express intrinsic ability or quality of an entity. It would be interesting in future research to investigate if similar usage distributions are observed in the voice systems of other languages as well.

Abbreviation

ACC: accusative, ANT: anterior (=perfect tense-aspect), ATTR: attributive, BEN: benefactive, CONN: connective, COP: copula, DAT: dative, DEC: declarative, DM: discourse marker, FIL: filler, GEN: genitive, GER: gerund, HON: honorific, IE: informal ending, IMP: imperative, INTJ: interjection, LNK: linker, LOC: locative, MM: middle voice marker, NEG: negation, NMLZ: nominalizer, NOM: nominative, PASS: passive, PL: plural, POL: polite, PRES: present, POSS: possessive, PROG: progressive, PST: past, RETRO: retrospective, Q: interrogative, SFP: sentence final particle, TOP: topic.

References

Abraham, Werner & Leisiö, Larisa. 2006. *Passivization and Typology: Form and Function.* Amsterdam/Philadelphia: John Benjamins.

Ahn, Mikyung & Yap, Foong Ha. 2017a. On the grammaticalization of voice markers: Some evidence from Korean *-i* and *–eci* constructions. Paper presented at the 25th Japanese/Korean Linguistics Conference (JK25), University of Hawai'i at Manoa, Honolulu, HI, October 12-14.

Ahn, Mikyung & Yap, Foong Ha. 2017b. From middle to passive: A diachronic analysis of Korean *–eci* constructions. *Diachronica* 34(4). 437-469.

Bae, Huyim. 1986. *'-ci'wa phitong (-ci and passive) [kwukehak sinyenkwu 1(New Studies on Korean1)].* Seoul: Thap Press.

Bae, Huyim. 1988. *Kwukephitongyenkwu (Studies on Korean Passive).* Seoul: Research Institute of Korean Studies.

Bak, Jae-Yeon. 2007. On the Modal Meanings of Auxiliary Construction '-eoji-'. *Kwukehak (Journal of Korean Linguistics)* 50. 269-293.

Baker, Mark. 1992. Thematic conditions on syntactic structures: Evidence from locative applicatives. In Roca, Iggy M. (ed.), *Thematic structure: Its role in grammar*, 23–46. Berlin: Foris.

Biber, Douglas. 1988. *Variation across Speech and Writing*. New York, NY: Cambridge University Press.

Biber, Douglas. 1999. A register perspective on grammar and discourse: variability in the form and use of English complement clauses. *Discourse Studies* 1(2). 131-150.

Bybee, Joan, Perkins, Revere & Pagliuca, William. 1994. *The Evolution of Grammar*. Chicago: University of Chicago Press.

Calude, Andreea S. 2004. Reflexive-middle and reciprocal middle continua in Romanian. *Proceedings of the 2004 Conference of the Australian Linguistic Society*, 1-14.

Carter, Ronald, & McCarthy, Michael. 1999. The English *get*-passive in spoken discourse: Description and implications for an interpersonal grammar. *English Language and Linguistics* 3(1). 41-58.

Chappell, Hilary. 1980. Is the *get*-passive adversative? *Papers in Linguistics* 13. 411-452.

Choi, Hyunbae. 1961. *Wuli Malpon (Korean Grammar).* Seoul: Cengum Munhwasa.

Condoravdi, Cleo. 1989. The Middle: Where semantics and morphology meet. *MIT Working Papers in Linguistics* 1(11). 16-30.

Delbecque, Nicole & Cornillie, Bert. 2007. *On Interpreting Construction Schemas: From Action and Motion to Transitivity and Causality*. Berlin/ New York: Walter de Gruyter.

Eckardt, Regine. 2006. *Meaning Change in Grammaticalization: An Enquiry into Semantic Reanalysis*. Oxford: Oxford University Press.

Faltz, Leonard. 1977. Reflexivization: A Study in Universal Syntax. Doctoral dissertation, University of California, Berkeley. [Reprinted 1985 by Garland Publishing, New York]

Fleisher, Nicholas. 2006. The origin of passive *get. English Language and Linguistics* 10(2). 225-252.

Haspelmath, Martin. 1987. *Transitivity Alternations of the Anticausative Type.* Cologne: Institut für Sprachwissenschaft der Universität zu Köln.

Haspelmath, Martin. 1990. The grammaticalization of passive morphology. *Studies in Language* 14 (1). 25-72.

Heine, Bernd & Kuteva, Tania. 2002. *World Lexicon of Grammaticalization*. Cambridge: Cambridge University Press.

Hilders, J. H. & Lawrance, J. C. D. 1956. *An Introduction to the Ateso Language*. Kampala: Eagle Press.

Hopper, Paul. 1991. On some principles of grammaticization. In Elizabeth C. Traugott & Heine, Bernd (eds.), *Approaches to Grammaticalization,* Volume 1*: Focus on Theoretical and Methodological Issues*, 17-36. Amsterdam/Philadelphia: John Benjamins.

Hopper, Paul J. & Traugott, Elizabeth C. 2003. *Grammaticalization*. Cambridge: Cambridge University Press.

Jeong, Eon-hak. 2002. Study on the grammaticalization of the '-go isda' construction. *The chin-tan hakpo* 94. 167-203.

Jeong, Eon-hak. 2006. *sangilonkwa pocoyongenuy yeksacek yenkwu (Historical Studies on Aspect and Auxiliary Verb).* Seoul: Thayhaksa.

Jing-Schmidt, Zhuo & Jing, Ting. 2011. Embodied semantics and pragmatics: Empathy, sympathy and two passive constructions in Chinese media discourse. *Journal of Pragmatics* 43. 2826–2844.

Kemmer, Suzanne. 1993. *The Middle Voice (Typological Studies in Language 23).* Amsterdam/ Philadelphia: John Benjamins.

Keenan, Edward L. 1985. Passive in the World's Languages. In Shopen, Timothy (ed.), *Language Typology and Syntactic Description*, Vol 1, 243-281. Cambridge: Cambridge University Press.

Keyser, Samuel Jay & Roeper, Thomas. 1984. On the middle and ergative constructions in English.

Linguistic inquiry 15. 381- 416.

Kim, Cha Gyun. 1980. The meaning of causatives and passives in Korean. *Hangeul* 168. 3-47.

Klaiman, Miriam H. 1982. Affectiveness and the voice system of Japanese: Satisfaction guaranteed or your money back. In Macauley, Monica et al. (eds.), *Proceedings of the 8th Annual Meeting of the Berkeley Linguistics Society*, 398-413.

Klaiman, Miriam H. 1988. Affectedness and control: A typology of voice systems. In Shibatani, Masayoshi (ed.), *Passive and Voice*, 25-83. Amsterdam/Philadelphia: John Benjamins.

Ko, Yŏng-jin. 1997. *hankwukeuymwunpephwakwaceng: phwulissiuykyengwu (Grammaticalization of Korean: In the Case of Predicates)*. Seoul: Kookhak publishing.

König, Ekkehard & Moyse-Faurie, Claire. 2010. Spatial reciprocity: Between grammar and lexis. In Helmbrecht, J., Nishinia, Y., Shin Y., Skopeteas, S. & Verhoeven, E. (eds.), *Form and Function in Language Research, Papers in Honour of Christian Lehmann*, 57-69. Berlin: Mouton.

Kuno, Susumu. 1973. *The Structure of Japanese Language*. Cambridge, MA: MIT Press.

Lee, Jung Tag. 2001. On the historical development of *-ti-. Journal of Korean Linguistics* 38. 117-134.

Lyons, John. 1969. *Introduction to Theoretical Linguistics.* Cambridge: Cambridge University Press.

Nam, Su-Kyong. 2011. An essay on the meanings of '-eojida': A typological perspective. *The Society for Korean Language and Literary Research* 151. 175-202.

Narrog, Heiko & Heine, Bernd. 2011. *The Oxford Handbook of Grammaticalization*. Oxford: Oxford University Press.

Nedjalkov, Vladimir P. & Jaxontov, Sergej Je. 1988. The typology of resultative constructions. In Nedjalkov, Vladimir P. (ed.), *Typology of Resultative Constructions* (*Typological Studies in Language 12),* 5–62. Amsterdam/Philadelphia: John Benjamins

Ono, Naoyuki. 2013. Event structure and the Japanese indirect passive. In Pustejovsky, J., Bouillon, P., Isahara, H., Kanzaki, K. & Lee, C. (eds.), *Advances in Generative Lexicon Theory,* 311-326. Dordrecht: Springer.

Oshima, David Y. 2003. Out of control: A unified analysis of Japanese passive constructions. In Kim, Jong-Bok & Wechsler, Stephan (eds.), *Proceedings of the 9th International Conference on HPSG,* 245-265. Stanford, CA: CSLI.

Oshima, David. 2006. Adversity and Korean/Japanese passives: Constructional analogy. *Journal of East Asian Linguistics* 15 (2). 137-166.

Park, Seong Jong. 1984. (A) study on Korean passive. Master thesis. Seoul National University.

Prasithrathsint, Amara. 2006. Development of *thùuk* passive marker in Thai. In Abraham, Werner & Leisiö, Larisa (eds.), *Passivization and Typology*, 115-131. Amsterdam: John Benjamins.

Seng, Kwangswu. 1976. kwuke kancepphitongey tayhaye (About indirect passive in Korean). *Mwunpepyenkwu (Studies on Grammar)* 3.159-182.

Shibatani, Masayoshi.1976. The grammar of causative constructions: a conspectus. In Shibatani, Masayoshi (ed.), *Syntax and Semantics* Vol. 6: *The Grammar of Causative Constructions,* 5-61. New York: Academic Press.

Shibatani, Masayoshi. 1985. Passive and related constructions: a prototype analysis. *Language* 61.821-48.

Shibatani, Masayoshi. 1994. An integrational approach to possessor raising, ethical datives, and adversative passives. *Proceedings of the 20th Annual Meeting of the Berkeley Linguistic Society,*461–486.

Shintani, Michiko. 1979. The Frequency and Usage of the English Passive. Doctoral dissertation, University of California, Los Angeles.

Talmy, Leonard. 1985. Lexicalization patterns: semantic structure in lexical forms. In Timothy Shopen (ed.), *Language Typology and Syntactic Description,* 57-149. Cambridge: Cambridge University Press.

Traugott, Elizabeth Closs. 1989. On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language* 65. 31-55.

Traugott, Elizabeth Closs. 1995. Subjectification in grammaticalisation. In Stein, Dieter & Wright, Susan (eds.), *Subjectivity and Subjectivisation: Linguistic Perspectives*, 31-54. Cambridge: Cambridge University Press.

Valfells, Sigridur. 1970. Middle voice in Icelandic. In Benediktsson, Hreinn (ed.), *The Nordic Languages and Modern Linguistics* 1, 551-572. Reykjavik: VisindafelagIslen-dinga.

Weiner, E. Judith & Labov, William. 1983. Constraints on the agentless passive. *Journal of Linguistics*19. 29-58.

Winskel, Heather & Padakannaya, Prakash. 2014. *South and Southeast Asian Psycholinguistics.* Cambridge: Cambridge University Press.

Woo, Inhyey. 1997. *Wulimalphitongyenkwu(Studies on Korean Passives).* Seoul: *Hankwukmwunhwasa*.

Yeon, Jae-Hoon. 1994. Grammatical Relation Changing Constructions in Korean: A Functional-Typological Study, Doctoral Dissertation, University of London.