

The -eci Syncretism in Korean: Implications for the Theory of v and Voice

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Abstract

This paper investigates the syncretism exhibited by the Korean verbal suffix *-eci*. In addition to its widely known appearance in the passive construction, *-eci* can also be used to derive verbs expressing potentiality. In this paper, I show that two independently motivated theoretical tools — (i) the articulated verbal structure with root, verbalizer, and Voice; and (ii) the assumption that morphological identity signifies the morpheme's realization of an identical syntactic head — accurately explain the passive-potential syncretism in Korean. Specifically, I argue that *-eci* realizes a syntactic head that the passive and potential structures have in common: v_{GO} , the verbalizer marking the eventuality of 'change'. I attribute the systematic morpho-syntactic and semantic contrasts between passives and potentials to the (non)existence of $Voice_{PASS}$, the projection introducing an implicit external argument. The analysis successfully captures the properties of the other constructions formed upon *-eci* — namely, derived change-of-state and lexical inchoative predicates.

Keywords: syncretism, passive, potential, inchoatives, change of state

Résumé

Cet article étudie le syncrétisme du suffixe verbal coréen *-eci*. Outre son apparition bien connue dans la construction passive, *-eci* peut également être utilisé pour dériver des verbes exprimant la potentialité. Dans cet article, je montre que deux outils théoriques motivés indépendamment — (i) la structure verbale articulée avec la racine, le verbalisateur et la voix ; et (ii) la supposition que l'identité morphologique signifie la réalisation par le morphème d'une tête syntaxique identique — expliquent avec précision le syncrétisme passif-potentiel en coréen. Plus précisément, je soutiens que *-eci* réalise une tête syntaxique que les structures passives et

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potentielles ont en commun : v_{GO} , le verbalisateur marquant l'éventualité du « changement ». J'attribue les contrastes morpho-syntaxiques et sémantiques systématiques entre les passifs et les potentiels à la (non-)existence de $Voice_{PASS}$, la projection introduisant un argument externe implicite. L'analyse capture avec succès les propriétés des autres constructions formées sur *-eci*, à savoir les prédicats dérivés de changement d'état et les prédicats lexicaux inchoatifs.

Mots-clés: syncrétisme, passif, potentiel, inchoatif, changement d'état

1. INTRODUCTION

The Korean language is known to have three different ways to derive passives (Sohn 1999, Song and Choe 2007, Yeon and Brown 2011). In the descriptive nomenclature, the first type is called the morphological passive, formed by attaching the verbal suffixes *-i/-hi/-li/-ki*, as shown in the alternations in (1).¹ Morphological passives are idiosyncratic in that they are only allowed with a limited set of transitive verbs, and the choice among the four suffixes *-i/-hi/-li/-ki* is lexically determined by the preceding verbal root. Thus, *ccoch-* 'chase' takes the suffix *-ki*, as in (1), but the choice varies with other verbal roots (e.g., *ssoi-* 'stung', *cap-hi* 'caught', *mwul-li* 'bitten'). Also notable is that the putative by-Agent in the passive alternant in (1b) is dative-case marked.

- (1) a. *kyengchal-i yonguyca-lul ccoch-ass-ta.*
 police-NOM suspect-ACC chase-PAST-DECL
 'The police chased the suspect.'
- b. *yonguyca-ka (kyengchal-eykey) ccoch-ki-ess*
 suspect-NOM (police-DAT) chase-KI-PAST-DECL
 'The suspect was chased (by the police).'

The second type are light verb passives. Light verb passivization applies to verbal nouns. In the active sentence in (2a), the light verb meaning 'do' is attached to a verbal noun to derive a verb. Its passive counterpart, *-toy*, which as a lexical verb means 'become', takes the place of *-ha* 'do' with the concomitant changes in the argument structure, as in (2b):

- (2) a. *yenkwu tim-i sin kiswul-ul kaypal-ha-ess-ta.*
 research team-NOM new technology-ACC development-do-PAST-DECL
 'The research team developed a new technology.'
- b. *sin kiswul-i (yenkwu tim-ey uyhay) kaypal-toy-ess-ta.*
 new technology-NOM (research team-by) development-TOY-PAST-DECL
 'A new technology was developed (by the research team).'

Finally, the third type of passives are called analytic or auxiliary passives, in which the suffix *-eci* is attached to a wide range of transitive verbs. With the suffixation of *-eci* to the verb in (3b), the Theme argument appears as the sentential subject and the Agent *haksayngtul* 'students' is optionally introduced by the adposition *-ey uyhay* 'by':

¹The abbreviations used in this paper are: ACC (accusative), CAUS (causative), DAT (dative), DECL (declarative), FUT (future), GEN (genitive), NEG (negation), NOM (nominative), PAST (past), PERF (perfect), PRES (present), RES (resultative), TOP (topic).

- (3) a. haksayngtul-i pyek-ey kulim-ul kuli-ess-ta.
 students-NOM wall-on picture-ACC draw-PAST-DECL
 ‘The students drew a picture on the wall.’
- b. pyek-ey kulim-i (haksayngtul-ey uyhay) kuli-eci-ess-ta.
 wall-on picture-NOM (students-by) draw-ECI-PAST-DECL
 ‘A picture was drawn on the wall (by the students).’

This paper is concerned with the last of the three alleged Korean passives, focusing particularly on the often overlooked distribution of the verbal suffix *-eci*. Because of the typical changes observed in passive formation in (3b), the verbal suffix *-eci* is generally treated as a passive morpheme (Park and Whitman 2003; S. D. Park 2005; H. K. Jung 2014a, 2014b, 2016a, among many others).² Within generative grammar, however, little attention has been paid to the fact that the same morpheme is used in a construction denoting potentiality or possibility, as in (4) (see Yeon 2003, 2015 and Mok and Kim 2006 for descriptive and functional accounts; Nam 2011 and Lim 2015 for lexical semantic and I-syntactic perspectives; and Shibatani 1985 and Fukuda 2013 for a similar usage of Japanese *-rare*).^{3,4}

- (4) onul-un kulim-i (cal) kuli-eci-ess-ta.
 today-TOP picture-NOM (well/easily) draw-ECI-PAST-DECL
 ‘As for today, one got to draw a picture (well/easily).’

²The suffix *-eci* has a phonologically conditioned alternant *-aci*, which appears in more specific environments: when the final vowel of the verbal root is either *o* (e.g., *po-aci*) or *a* (e.g., *cap-aci*), demonstrating vowel harmony. In addition, when the verbal root itself ends in *a* or *e*, a phonological elision takes place, leaving only one instance of *a/e* in the verbal stem (e.g., *ka-ci*, *se-ci*). Explanations for the allomorphy of *-eci* are outside the scope of this study. Throughout this paper, I use *-eci* to indicate the underlying representation.

³The interpretation of who drew the picture in (4) might be inferred through reference to the discourse. The most natural candidate with no preset context would be the speaker. In a storytelling scenario, the verb in (4) could be predicated of a third-person. However, the logical subject in the potential construction need not be identified with a pragmatically salient entity. In (i), the TV will operate for anyone who tries to turn it on:

- (i) icye ta kochi-ess-uni, TV-ka (cal) khi-eci-l kes-ita.
 now all fix-PAST-after TV-NOM (easily) turn.ON_V-ECI-FUT-DECL
 ‘Having fixed the TV now, one will get to turn it on (easily).’

The translation of the potential construction is very tricky. It is most naturally translated in English with ‘it is possible to X’. One could thus suggest to translate (4) as ‘As for today, it was possible to draw a picture (well/easily)’. In this paper, I retain the English interpretation ‘get to X’ to reflect the meaning of ‘change’ that *-eci* delivers. See section 6 for a discussion of how the syntactic heads involved interact to invoke the potential semantics.

⁴The potential construction is reminiscent of generic middles such as *The book reads easily* (Ackema and Schoorlemmer 2005). Unlike middles, which are generally known to describe a stative property of the internal argument, the Korean potential construction can be episodic and appears with a wider range of verbs. I suspect that Korean potentials have a systematic connection to middles existing in other languages. The specifics of this speculation await future investigation.

The question arises as to why the same morpheme *-eci* appears in both constructions. This paper investigates the syncretism exhibited by the Korean verbal suffix *-eci* and the properties of the passive and potential constructions built upon it. I make two novel proposals. First, I argue that the syncretic morphology is not an instance of accidental homonymy, but rather is a result of *-eci* occupying an identical syntactic head — namely, v_{GO} , the functional category that is associated with verbs of ‘change’ (Cuervo 2003, 2014, 2015). Second, I propose that their distinct syntactic patterns and meanings reflect their distinct structures with or without a higher functional head — $Voice_{PASS}$. To substantiate these proposals, I link the usages of *-eci* in passives and potentials to the two other environments where *-eci* appears. I term these ‘derived change-of-state’ and ‘lexical inchoative’ constructions.

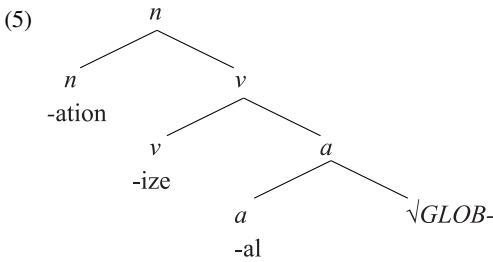
To the best of my knowledge, no attempt has been made in the theoretical literature to address all four usages of Korean *-eci*. In this paper, I show that recent developments in the theory of verb phrase (Pykkänen 2002, 2008; Cuervo 2003, 2014, 2015; Alexiadou et al. 2006; Harley 2013, 2017, among others), combined with the premise that morphological identity results from the morpheme occupying an identical syntactic head (Alexiadou et al. 2015), enable us to systematically capture the characteristics of the constructions derived by *-eci*.

This article is structured as follows. Section 2 introduces the theoretical background and assumptions involved. Section 3 illustrates some diverging syntactic behaviors of *-eci* as used in the passive and potential constructions. In sections 4 and 5, I propose an analysis of the passive and potential structures formed upon *-eci*. In particular, section 4 presents arguments that *-eci* realizes v_{GO} , the verbalizing head that marks the eventuality of ‘change’ (Cuervo 2003, 2014, 2015) in both passives and potentials. Subsequently, I attribute the syntactic differences between the two constructions to the presence or absence of the functional head hosting an external argument in section 5. In the process, I examine the behaviors of the two additional *-eci* structures in the language and thus arrive at a synthetic account of *-eci* syncretism. In section 6, I ascribe the potential semantics to the interplay of the syntactic heads involved. Section 7 evaluates alternative hypotheses. Section 8 discusses some conceptual and typological implications that follow from the current system. Section 9 concludes.

2. THEORETICAL BACKGROUND

2.1. Word formation in syntax

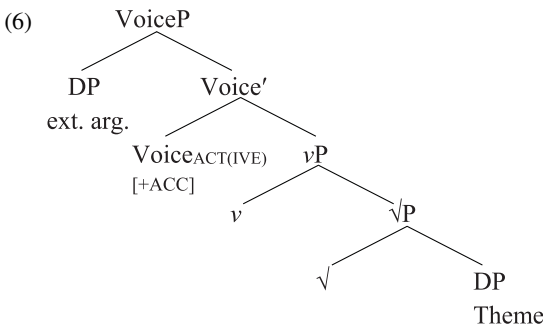
I assume that words are formed in syntax, using a Distributed Morphology (DM) framework (Halle and Marantz 1993, Marantz 1997). DM rejects the lexicon as a separate generative device and instead distributes its traditional roles throughout the distinct components of the grammar. Lexical items participate in syntax as category-neutral units, and their grammatical category is determined by the selecting functional head. For example, the English word *globalization* has an internal structure as in (5). The categorial root $\sqrt{GLOB-}$ is initially assigned the category of adjective by the selecting functional head *a*, which in turn is verbalized by *v*, and is finally derived as a noun by *n*. This syntactic derivation is transparently reflected in the morphological makeup:



Following this approach, verbal suffixes in Korean including *-eci* and *-ha* ‘do’/‘be’ have the status of an independent syntactic head. This view contrasts with lexicalist approaches (Williams 1981, Anderson 1982, among others), where verbal stems with derivational suffixes attached enter syntax fully derived.

2.2. The tripartite VP hypothesis

I further adopt the idea that the verb phrase consists of three layers, as in (6) (Pylkkänen 2002, 2008; Cuervo 2003, 2014, 2015; Alexiadou et al. 2006; Harley 2013, 2017, among others). In (6), the Voice head introduces the external argument and is responsible for accusative Case in the active voice. The little *v* determines the syntactic category (‘verb’) of its complement and the kind of eventuality (e.g., BE, DO, CAUS, GO/BECOME) (Harley 1995, Cuervo 2003). At the bottommost level is the root, which is devoid of any categorial information (Marantz 1997).⁵ I assume that in passives, the passive alternant of Voice — Voice_{PASS} — takes the place of Voice_{ACT} (Harley 2013).



Note that this premise departs from the traditional assumption that a core verb phrase is bipartite, containing a functional layer *vP* on top of a lexical layer VP (Hale and Keyser 1993, Chomsky 1995, Kratzer 1996, among many others). In what follows, I show that the separation of Voice from *v*, as schematized in (6),

⁵There is intense debate over whether roots take a complement (Harley 2014, Bobaljik and Harley 2017) or not (van Craenenbroeck 2014, De Belder and van Craenenbroeck 2015). Since this question does not pertain to the results of the current investigation, I adopt the simplest assumption that category-neutral roots can take a complement just as big V does in the bipartite system (Marantz 1997, Harley and Noyer 1998).

plays a pivotal role in explaining the various morpho-syntactic and semantic differences between passives and potentials in Korean (sections 4–6).

2.3. Syncretic derivational morphology

Cases where a certain morpheme participates in forming more than one construction are observed cross-linguistically. For example, the same voice morphology appears among passives, unaccusatives, and a limited number of reflexives in Modern Greek. Syntactic approaches to syncretism in derivational morphology have argued that this morphological identity reflects a common property in the syntactic component (Marantz 1984, Embick 2004). Specifically, the absence of an external argument is the key property that links the three Greek constructions.

More recently, a particular version of this thesis states that morphological identity results from the morpheme occupying an identical syntactic head. Alexiadou et al. (2015) propose that the syncretic verbal morpheme in Greek instantiates the same terminal node in syntax.⁶ In what follows, I show that this assumption not only allows us to establish a comprehensive account of all the usages of *-eci* (section 4), but also provides a clue to the question of why the passive and potential constructions in Korean exhibit differences despite having the same morphology (sections 5–6).

3. -ECI IN PASSIVE AND POTENTIAL CONSTRUCTIONS

The verbal suffix *-eci* shows up in a typical passive construction in Korean, as previously discussed in (3b), repeated below as (8). Syntacticians thus generally analyze *-eci* as a passivizing head (Park and Whitman 2003; S. D. Park 2005; H. K. Jung 2014a, 2014b, 2016a, among others).

(7) haksayngtul-i pyek-ey kulim-ul kuli-ess-ta.
 students-NOM wall-on picture-ACC draw-PAST-DECL
 ‘The students drew a picture on the wall.’

(8) pyek-ey kulim-i (haksayngtul-ey uyhay) kuli-**eci**-ess-ta. <passive>
 wall-on picture-NOM (students-by) draw-ECI-PAST-DECL
 ‘A picture was drawn on the wall (by the students).’

However, the same morpheme is found in a construction expressing potentiality or possibility, as in (4), repeated here as (9) (Yeon 2003, 2015; Mok and Kim 2006; Nam 2011; Lim 2015).

(9) onul-un kulim-i (cal) kuli-**eci**-ess-ta. <potential>
 today-TOP picture-NOM (well/easily) draw-ECI-PAST-DECL
 ‘As for today, one got to draw a picture (well/easily).’

⁶This strong thesis entails the former, weak thesis made in Marantz (1984) and Embick (2004). That is, according to Alexiadou et al. (2015), the verbal structures involved in syncretism share the common syntactic property of lacking an external argument *and* the morpheme occupies the same syntactic head.

The potential construction exhibits certain syntactic properties distinct from its passive counterpart. First, when *-eci* appears in the potential construction, it can attach to not only transitive verbs as in (9) but also intransitive verbs, as in (10) (Yeon 2003, 2015; Mok and Kim 2006). This is not possible with canonical passives.

- (10) a. *eccenci* *ku siktang-ey* *cacwu* (an) **ka-ci-n-ta.**
 Somehow that restaurant-to often (NEG) **go-ECI-PRES-DECL**
 ‘One (does not) get(s) to go to that restaurant often somehow.’
- b. *kwutwu-lul* *pes-ko* *wuntonghwa-lul* *sin-uni*
 heels-ACC take.off-and sneakers-ACC wear-after
 (cal) **tali-eci-n-ta.**
 (well/easily) **run-ECI-PRES-DECL**
 ‘Taking off heels and putting on sneakers, one gets to run (well/easily).’

Second, the potential *-eci* construction is not compatible with a *by*-Agent (Lim 2015). Examples (9)–(10) become unacceptable upon adding an intended external argument in the form of a *by*-phrase.⁷ This is in sharp contrast to the passive *-eci*.

- (11) **onul-un* *kulim-i* **Mina-ey uyhay** *cal* *kuli-eci-ess-ta.*
 today-TOP picture-NOM **Mina-by** well/easily draw-ECI-PAST-DECL
 Intended: ‘As for today, Mina got to draw a picture well/easily.’
- (12) a. **eccenci* *ku siktang-ey* **na-ey uyhay** *cacwu*
 somehow that restaurant-to **me-by** often
 an *ka-ci-n-ta.*
 NEG **go-ECI-PRES-DECL**
 Intended: ‘I don’t get to go to that restaurant often somehow.’
- b. **kwutwu-lul* *pes-ko* *wuntonghwa-lul* *sin-uni,* **na-ey uyhay**
 heels-ACC take.off-and sneakers-ACC wear-after **me-by**
 cal *tali-eci-n-ta.*
 well/easily **run-ECI-PRES-DECL**
 Intended: ‘Taking off heels and putting on sneakers, I get to run well/easily.’

Before leaving this point, it is worth pointing out that an adverb like *cal* ‘well, easily’ and the negation marker *an* facilitate the potential meaning, as can be seen in (9)–(10). Note, however, that the compatibility with these elements cannot be used as a test for *-eci* as forming the potential construction, since they can appear in the passive as well. Thus, in what follows, I use these items to emphasize the potential meaning, not to distinguish it from the passive.

Examining the patterns of *-eci* in passive and potential constructions, three questions arise, to be answered in the following sections:

Q1: Why does *-eci* appear in both passive and potential constructions? (Section 4)

⁷A reviewer points out that English *-able* constructions (Otra-Massuet 2010) and German *lassen*-middles (Pitteroff 2015) accept indefinite *by*-phrases, although they cannot appear with *by*-phrases referring to specific individuals. The ungrammaticality of (11)–(12) cannot be rescued with indefinite *by*-phrases (e.g., *nwukwuna-ey uyhay* ‘by anyone’), showing that the potential constructions truly reject *by*-phrases of any type.

- Q2:** Why do passive and potential constructions formed with *-eci* exhibit distinct syntactic behaviors? (Section 5)
- Q3:** What is the source of the potential semantics? (Section 6)

4. *-ECI* AS A VERBALIZING HEAD MARKING ‘CHANGE’

In this section, I argue that the Korean *-eci* suffix is a realization of the functional head v_{GO} . My hypothesis regarding Q1 above is that *-eci* appears in both passive and potential constructions because it occupies the same syntactic head v_{GO} . I present a two-step argumentation to substantiate this proposal. I first show that *-eci* is a phonological exponent of the v head, not Voice (section 4.1). I then present evidence that *-eci* instantiates a particular flavour of v — namely, v_{GO} , which marks the eventuality of ‘change’ (Cuervo 2003, 2014, 2015) (section 4.2).

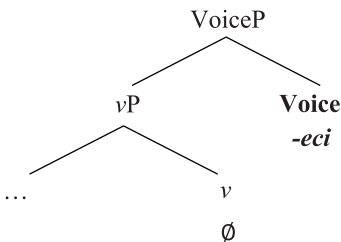
4.1. *-eci* as v , not Voice

I first argue that the suffix *-eci* attached to lexical verbs occupies the functional head v , not Voice. To arrive at this conclusion, the assumption adopted in section 2.3, repeated here as (13), plays a crucial part:

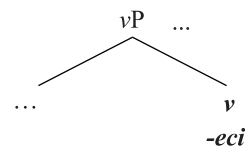
- (13) Morphological identity results from the morpheme occupying the same syntactic head (Alexiadou et al. 2015).

Given (13), the phenomenon whereby *-eci* appears in both passive and potential constructions is a consequence of *-eci* realizing a syntactic head that the passive and potential structures share. Assuming that Voice and v are separate syntactic heads, as depicted in (6), we have two analytical options as to which head *-eci* occupies. The suffix *-eci* may be hypothesized to realize either Voice or v , as represented in (14a) and (14b) respectively.⁸

- (14) a. Hypothesis 1



- b. Hypothesis 2



Recent theories of Voice diverge on the status of the implicit external argument in passives (Bruening 2012, Hallman 2013, Legate 2014, Collins 2018, Angelopoulos et al. 2020) and the possibility of Voice being semantically void

⁸Notice that (14b), where there are three dots to the right of vP , is silent about the Voice layer above v . As will be fully addressed in section 5, the presence/absence of Voice is a key factor that distinguishes the passive structure from the potential.

(Schäfer 2008, Alexiadou et al. 2015, Wood 2015, Myler 2016, Kastner 2020, Tyler 2020). This means that Hypothesis 1 in (14a) can be fleshed out in several versions. For the purpose of this study, let us narrow down the question to whether the verbal suffix *-eci* occupies the verbalizing head or the higher projection above it.⁹ A particular version of the first hypothesis is adopted in H. K. Jung (2014a, 2014b, 2016a), where the passive suffix is simply assumed to be the phonological exponent of the passive Voice head. However, broader empirical consideration favours the second hypothesis in (14b). Specifically, evidence for the second hypothesis comes from the other usages of *-eci*. In addition to its role to derive passive and potential verbs, *-eci* can also be suffixed to stative verbs, as in (15)–(16) (Kang 1997, Zubizarreta and Oh 2007, Lim and Zubizarreta 2012, Lim 2015):

- (15) a. *cwul-i kil-ess-ta.*
 line-NOM be.long-PAST-DECL
 ‘The line was long.’
- b. *cwul-i kil-eci-ess-ta.*
 line-NOM be.long-ECI-PAST-DECL
 ‘The line became long.’
- (16) a. *sonye-nun hayngbok.ha-ess-ta.*
 girl-TOP be.happy-PAST-DECL
 ‘The girl was happy.’
- b. *sonye-nun hayngbok.ha-eci-ess-ta.*
 girl-TOP be.happy-ECI-PAST-DECL
 ‘The girl became happy.’

Under the current assumption of verbalizing heads (section 2.2), the stative verbs *kil-* ‘be long’ and *hayngbok.ha-* ‘be happy’ in (15a) and (16a) belong to the category of v_{BE} (Harley 1995).¹⁰ The suffix *-eci* attaches to these stems to further derive change-of-state predicates in (15b) and (16b). Thus, I term the verbal stems in (15b) and (16b) *derived change-of-state* predicates.

In addition, the suffix *-eci* may also directly attach to a limited set of roots to derive inchoative verbs, as in (17b)–(20b) (Kang 1997). The roots of these predicates behave like cran morphemes in that without *-eci* the verbal root fails to denote anything, as can be seen by the unacceptability of (17a)–(20a):

- (17) a. **ttel-*
 b. *ttel-eci* ‘fall, drop_{vi}, drip’(e.g., ‘fall off a bike’, ‘the price drops’)
- (18) a. **pel-*
 b. *pel-eci* ‘part_{vi}’ (divide to leave a central space)

⁹See section 7.2 for how the conclusions of this study can be embraced in different theories of Voice.

¹⁰This assumption is based on an independent finding of Kim (2002) that Korean lacks adjectives entirely and that putative ‘adjectives’ in fact belong to the ‘verb’ class. The v_{BE} head in Korean is realized either as null or *-ha* depending on whether the v_{BE} appears root-adjectively (15) or not (16) (H. K. Jung 2016b).

- (19) a. *ppa-
 b. ppa-**ci** ‘fall, be left out’ (e.g., ‘fall into water’)
- (20) a. *pwul-
 b. pwul-**eci** ‘break_{vi}’

In (17b)–(20b), *-eci* evidently serves as a verbalizer. It is after the suffixation of *-eci* that the bound roots can be identified as verbs. In addition, the eventualities in (17b)–(20b) describe a ‘change’ in a state. I call this use *lexical inchoative*.¹¹

Notice that neither the derived change-of-state predicates in (15b)–(16b) nor the lexical inchoatives requiring *-eci* in (17b)–(20b) entail the presence of an external argument. This shows that these structures do not contain Voice licensing an external argument. Let us set aside the question of whether or not some kind of Voice is present in (15b)–(20b) for the moment, since the answer differs depending on one’s theory of Voice.

Regardless, there is a consensus that *v*, not Voice, is the functional head responsible for assigning the category of verb to its complement, as in (17b)–(20b) (section 2.2). Moreover, the semantic effect of attaching *-eci* in (15b)–(20b) is precisely what the subcategory of *v* marking the eventuality of a ‘change’ in a state — *v*_{GO} (Cuervo 2003, 2014, 2015), or its equivalent in Harley (1995, 2008) and Marantz (1997), *v*_{BECOME} — is expected to yield. Thus, if we adopt the premise in (13) and, simultaneously, seek to account for the facts listed above, Hypothesis 1 in (14a) cannot fully explain the occurrences of *-eci* in (15b)–(20b). Only Hypothesis 2 in (14b) is compatible with all the usages of *-eci*, showing that *-eci* is *v*, not Voice.¹²

Below I present some additional evidence that *-eci* instantiates the verbalizing head. I note that the transitive counterparts of the lexical inchoatives in (17b)–(20b) contain a lexical causative suffix, exhibiting the alternations in (21)–(24).

- (21) a. ttel-**ettuli** ‘make fall, drop_{vt}’
 b. ttel-**eci** ‘fall, drop_{vi}, drip’ (e.g., ‘fall off a bike’, ‘the price drops’)
- (22) a. pel-**li** ‘part_{vt}’ (make space by dividing something into two parts)
 b. pel-**eci** ‘part_{vi}’ (divide to leave a central space)

¹¹Notice that the fact that *-eci* attaches to an already verbalized stem in the derived change-of-state predicate in (15b) and (16b) is not a problem for classifying *-eci* as *v*. A little *v* may take *v*P or VoiceP complements besides category-neutral roots (Pylkkänen 2002, 2008; Tubino-Blanco 2011; Harley 2013; Key 2013; H. K. Jung 2014b). When the *v* is root-adjacent, it simultaneously serves the verbalizing function and marks the eventuality. Conversely, the outer *v*, like that in (15b) and (16b), plays only the latter role.

¹²One could suggest a third possibility that *v* and Voice are “bundled” into a single syntactic head in the sense of Pylkkänen (2002, 2008) and that *-eci* instantiates this bundled *v*+Voice head. As a reviewer points out, a diagnostic for *v* and Voice being separate syntactic heads (i.e., non-bundling) is the passivization of morphological causatives. Korean does allow this and passes other tests for non-Voice-bundling, ruling out this third hypothesis. See H. K. Jung (2014a) for relevant discussion.

- (23) a. **ppa-ttuli** ‘make fall, drop_{vt}, leave out’
 b. **ppa-ci** ‘fall, be left out’ (e.g., ‘fall into water’)
- (24) a. **pwul-ettuli** ‘break_{vt}’
 b. **pwul-eci** ‘break_{vi}’

In Korean, the spell-out of lexical causative morphemes is determined by the individual roots they occur with (J.-W. Park 1994, Yeon 2000, Son 2006). H. K. Jung (2014b), Pylkkänen (2002, 2008), Harley (2008), and Miyagawa (2011) have independently shown that lexical causative suffixes are syntactically root-adjacent in Korean (and Japanese). In other words, lexical causative suffixes are a verbalizing v — v_{CAUS} , in particular.¹³ The systematicity of the morphological alternation in (21)–(24) strongly suggests that the *-eci* suffix and the lexical causative suffixes occupy a functional head of the same syntactic level. Since lexical causative suffixes are attested v_{CAUS} morphemes, it is reasonable to think that *-eci* also instantiates a v — specifically, $v_{\text{GO/BECOME}}$, which derives the inchoative counterparts in (21b)–(24b).

Finally, as pointed out by a reviewer, if certain verbal morphology can appear inside derived nominals with a deficient internal structure, this suggests that the morpheme is the spell-out of the verbalizing v head. In other words, if a derived nominal cannot appear with an Agent PP, the structure of the derived nominal lacks the Voice layer accommodating a syntactic external argument (Alexiadou 2009, Harley 2009). The verbal suffix inside the nominal cannot then be the Voice. To this end, the present analysis predicts *-eci* to be able to occur inside such derived nominals. The data in (25) demonstrate that the nominalizing morpheme *-m* can indeed nominalize verbs including *-eci*. The derived nominals in (25) result from nominalizing transitive verbal stems. Crucially, they do not allow a *by*-Agent, showing that the Voice that would otherwise be expected in the verbal domain is absent. It follows that *-eci* in (25) is not an instantiation of Voice but of a lower head, namely v .¹⁴

- (25) a. **ccokay-eci-m** b. **kkay-eci-m**
 split_{vt-ECI-n} crack_{vt-ECI-n}
 ‘cleavage’ ‘fracture’

¹³This implies that the statement in (13) is unidirectional. Morphological identity requires that the morpheme occupy the same syntactic head (Alexiadou et al. 2015), but not vice versa. The same causative head (i.e., v_{CAUS}) may have different morphological realizations within a language (Harley 2008; Miyagawa 2011; H. K. Jung 2014b).

¹⁴A Google search returns a number of truly Agent-less usages of (25):

kwangmwul-un conglyu-ey ttala **ccokay-eci-m-kwa** **kkay-eci-m-i** poi-n-ta
 minerals-TOP type-according to split_{vt-ECI-n}-and crack_{vt-ECI-n}-NOM be SEEN-PRES-DECL
 ‘Minerals show (the properties of) **cleavage** and **fracture**, (which vary) according to the type (of mineral).’

(<https://www.scienceall.com/%EA%B9%A8%EC%A7%90fracture-3/>, accessed 2 July 2021)

On the whole, the patterns of *-eci* in the four exhaustive environments along with its parallel behavior with lexical causative suffixes and appearance in derived nominals uniformly point to the conclusion that *-eci* is a verbalizing ν , not Voice.

4.2. *-eci* as ν_{GO}

Having established that the *-eci* suffix is a realization of ν , I now turn to showing that *-eci* instantiates the flavour of ν_{GO} , which introduces verbs of ‘change’ as proposed by Cuervo (2003, 2014, 2015). In this subsection, I demonstrate that while *-eci* may participate in deriving a ‘change of state’, the eventuality of BECOME cannot be the core meaning of *-eci*. Specifically, the patterns of potential *-eci* in the perfect aspect lead one to conclude that *-eci* exclusively introduces the eventuality of ν_{GO} independent of ν_{BE} , supporting Cuervo’s (2003) classification, at least in the Korean case at hand.

Recall the assumption about verb structure adopted in section 2.2. In addition to its role of categorizing its complement as verb, the ν head names the type of eventuality that the resulting νP describes. Accordingly, Harley (1995) proposes a classification of the ν head into a limited set of “flavours” such as ν_{DO} (activity), ν_{CAUS} (causation), and ν_{BE} (state). Cuervo (2003), albeit sharing the insight of ν flavours, disagrees on the ν flavour associated with the eventuality ‘change of state’.¹⁵ Thus, while Harley (1995, 2008) and Marantz (1997) regard ‘change of state’ as a mono-eventuality, Cuervo (2003, 2014, 2015) argues that BECOME cannot be a component primitive enough to belong to the inventory of ν flavours. Cuervo proposes that BECOME should be further divided into ν_{BE} (the eventuality of ‘state’) and ν_{GO} (the eventuality of ‘change’). The constructions involving *-eci* provide a good testing ground for the two competing theories.

As shown in section 4.1, attaching the *-eci* suffix results in the verbal meaning of ‘change of state’ in the derived change-of-state predicate in (15b), repeated here as (26b) and the lexical inchoative in (27b).

- (26) a. cwul-i kil-ess-ta.
line-NOM be.long-PAST-DECL
‘The line was long.’
- b. cwul-i kil-eci-ess-ta. <derived change-of-state>
line-NOM be.long-ECI-PAST-DECL
‘The line became long.’
- (27) a. *namwusip han cang-i ttel-ess-ta.
leaf one-NOM TTEL-PAST-DECL
- b. namwusip han cang-i ttel.eci-ess-ta. <lexical inchoative>
leaf one-NOM TTEL-PAST-DECL
‘A leaf fell.’

¹⁵Cuervo (2003, 2015) also postulates a complex event structure consisting of ν_{BE} and ν_{DO} for causatives, instead of ν_{CAUS} . In this article, I simply assume ν_{CAUS} when causatives are referred to, as causative structures are not the main concern of this paper. See H. K. Jung (2014b), however, for a discussion of whether root-selecting causative affixes should be taken as ν_{CAUS} or ν_{DO} .

In both (26b) and (27b), *-eci* delivers a ‘change’ meaning, but is it also responsible for the ‘be’ meaning? In other words, should *-eci* be identified as v_{GO} or v_{BECOME} ? To answer this question, the interactions between the perfect marker *-eiss* and the constructions in which *-eci* appears need to be compared.

The perfect marker *-eiss* (lexically meaning ‘exist’) in Korean can be attached to change-of-state predicates to express the continuation of the resultant state (Son 2008).

- (28) a. aisukulim-i nok-ass-ta.
ice cream-NOM melt_{vi}-PAST-DECL
‘The ice cream melted.’
- b. aisukulim-i nok-**aiss**-ta.
ice cream-NOM melt_{vi}-**PERF**-DECL
‘The ice cream has melted (and is still in the state of being melted).’
- (29) a. hoswu-ka el-ess-ta.
lake-NOM freeze_{vi}-PAST-DECL
‘The lake froze.’
- b. hoswu-ka el-**eiss**-ta.
lake-NOM freeze_{vi}-**PERF**-DECL
‘The lake has frozen (and is still in the state of being frozen).’

Just like the inherent change-of-state verbs in (28)–(29), *-eiss* can follow *-eci* in derived change-of-states (Zubizarreta and Oh 2007) and lexical inchoatives, as can be seen in (30b)–(31b), respectively:

- (30) a. cwul-i kil-**eci**-ess-ta. <derived change-of-state>
line-NOM be.long-**ECI**-PAST-DECL
‘The line became long.’
- b. cwul-i kil-**eci-eiss**-ta.
line-NOM be.long-**ECI**-**PERF**-DECL
‘The line has become long (and is still long).’
- (31) a. namwusip han cang-i **ttel.eci**-ess-ta. <lexical inchoative>
leaf one-NOM **fall**-PAST-DECL
‘A leaf fell.’
- b. namwusip han cang-i **ttel.eci-eiss**-ta.
leaf one-NOM **fall**-**PERF**-DECL
‘A leaf has fallen (and is still in the fallen state).’

Interestingly, however, *-eiss* is incompatible with the potential *-eci* even though it can co-occur with the other usages of *-eci*. Recall from section 3 that intransitive verbs can only appear with potential *-eci*, not with passive *-eci*. Example (32a) is hence unambiguously a potential construction. As the ungrammaticality of (32b) demonstrates, the perfect marker *-eiss* cannot be attached to potential *-eci*.

- (32) a. eccenci ku siktang-ey cacwu **ka-ci**-n-ta. <potential>
somehow that restaurant-to often **go**-**ECI**-PRES-DECL
‘One gets to go to that restaurant often somehow.’

- b. *eccenci ku siktang-ey cacwu ka-ci-eiss-ta.
 somehow that restaurant-to often GO-ECI-PERF-DECL

Meanwhile, when *-eci* is suffixed to a transitive predicate and the *by*-Agent phrase is omitted as in (33a), the sentence is, as expected, ambiguous between potential and passive interpretations. Notice that when the perfect marker attaches to the verb as in (33b), the resulting sentence is only read as a passive construction.

- (33) a. kulim-i **kuli-eci-ess-ta.**
 picture-NOM **draw-ECI-PAST-DECL**
 Meaning 1: ‘One got to draw a picture.’ <potential>
 Meaning 2: ‘A picture was drawn.’ <passive>
- b. kulim-i **kuli-eci-eiss-ta.** <passive>
 picture-NOM **draw-ECI-PERF-DECL**
 Only acceptable as: ‘A picture has been drawn (and is still in the drawn state).’

In contrast to the compatibility between the perfect marker and the other three usages of *-eci*, the ungrammaticality of (32b) and unavailability of the potential reading in (33b) show that the potential construction built upon *-eci* does not contain any resultant state in its compositional meaning. Given our assumption in (13) that the same morpheme occupies the same syntactic head, we are then led to conclude that *-eci* is in charge of the ‘change’ semantics independent of ‘be’. That is, *-eci* is a realization of v_{GO} (Cuervo 2003, 2014, 2015).

Because *-eci*, as v_{GO} , simply introduces verbs of change, not including a result state, it is not required to accept the attachment of the marker expressing the continuation of a resultant state. It is not therefore surprising that the potential construction and the other three constructions exhibit diverging patterns when interacting with *-eiss* in (30)–(33).¹⁶ Conversely, under an alternative hypothesis that *-eci* instantiates v_{BECOME} (Harley 1995), marking a ‘change of state’, *-eci* is expected to feed the perfect marker entailing a resultant state. In such an account, the ungrammaticality of (32b) and the unambiguity of (33b) are left unexplained.

Analyzing *-eci* as v_{GO} , rather than v_{BECOME} , offers an explanation for the morphological makeup of the derived change-of-state predicates like (34b). In Korean, some stative predicates have overt morphology realized by *-ha*, as in (16), repeated here as (34a). The suffix *-eci* can attach to these stative predicates to derive change-of-state predicates, as in (16b) and (34b). Under the classification of v flavours by Harley (1995, 2002), the overt stative verbalizer *-ha* realizes the flavour v_{BE} (H. K. Jung 2016b, cf. D. Jung 2002). Since *-ha* is responsible for marking the eventuality of ‘state’, it follows that *-eci* in (34b) corresponds to the ‘change’ eventuality.

¹⁶This implies that the ‘result state’ present in the other *-eci* constructions is specified elsewhere in the structure. I assume it is either the root itself, following Cuervo (2014, 2015), or a functional head adding an endpoint. For the current purposes, it suffices to demonstrate that *-eci* is not responsible for the ‘BE’ semantics.

Treating *-eci* as v_{BECOME} in (34b) would be a redundant marking of a result state because the BE portion of BE-COME is independently expressed by *-ha*.

- (34) a. sonye-nun hayngbok.**ha**-ess-ta.
 girl-TOP happy. v_{BE} -PAST-DECL
 ‘The girl was happy.’
- b. sonye-nun hayngbok.**ha-eci**-ess-ta.
 girl-TOP happy. $v_{\text{BE-ECI}}$ -PAST-DECL
 ‘The girl became happy.’

To sum up, the interaction between *-eci* and the perfect marker *-eiss* as well as the morphological patterns of the derived change-of-state verbs containing an overt stative marker are best captured if we analyze *-eci* as the marker of the eventuality of ‘change’ (Cuervo 2003, 2014, 2015), rather than ‘change of state’ (Harley 1995, Marantz 1997).

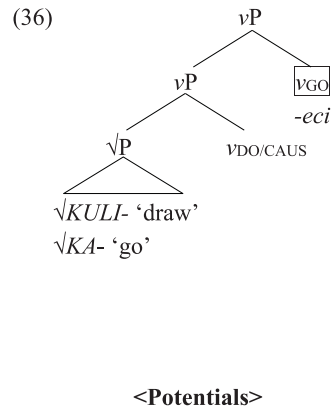
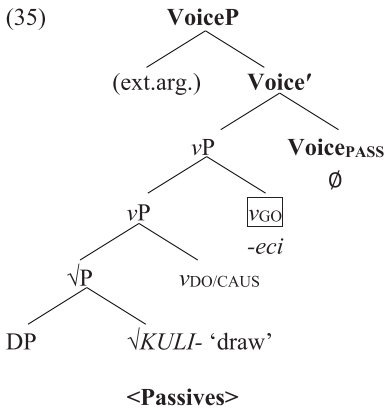
5. PASSIVES AND POTENTIAL CONSTRUCTIONS: VOICE OR THE LACK THEREOF

5.1. The structure of passive and potential constructions

In section 4, I argued that the *-eci* suffix realizes the v_{GO} head in Korean. Having identified the syntactic status of the morpheme, we are now in a position to consider the second question raised in section 3: the reason that passive and potential constructions formed with *-eci* display different syntactic behaviours. If *-eci* instantiates the same syntactic head v_{GO} , what distinguishes the passive from the potential construction and gives rise to their syntactic distinctions?

Lim (2015), extending Lim and Zubizarreta (2012), proposes that the modal, or potential, *-eci* reading arises when the anticausative *-eci* configuration lacks an initiator of causation.¹⁷ In a similar vein, Yeon (2003, 2015) notes that in the potential *-eci* construction the Agent is suppressed, losing volitional control over the event. Building on Lim (2015) and Yeon’s (2003, 2015) insight, I argue that the distinct behaviours of the passive and potential constructions are attributable to the presence or absence of Voice_{PASS}. In particular, while both passive and potential constructions formed with *-eci* share the substructure $v_{\text{GO}}\text{P}$ occupied by *-eci*, the two diverge in whether the derivation projects further into a Voice_{PASS}P or not. I propose (35) for the structure of the passive *-eci* construction and (36) for that of the potential *-eci* construction:

¹⁷Focusing on the derived change-of-state usage of *-eci* in (15)–(16) and rejecting the passive analyses of (3b), Lim and Zubizarreta (2012) treat *-eci* as v_{BECOME} , while leaving open the possibility that the head semantics ranges from BECOME to COME/GO. Recall, however, the arguments presented in section 4.2 that *-eci* cannot be BECOME. A question arising from Lim (2015) is how to capture the syntactic differences between the potentials and what are assumed as passives in the present study.



Some remarks on the status and position of the implicit external argument in (35) are called for. Recall from our discussion in section 2.2 that Voice is a syntactic layer responsible for introducing an external argument, independent of *v*. I assume that Voice_{ACT(IVE)} in (6) alternates with Voice_{PASS(IVE)} in passives and that as a Voice head, Voice_{PASS} also serves to host an external argument in its specifier. The difference between the two varieties of Voice would then be that the external argument associated with Voice_{ACT} is overt, while that of Voice_{PASS} can be covert. This assumption is derived by combining two conclusions from previous studies on the argument structure of passives. First, I follow Collins (2018) and Angelopoulos et al. (2020) in treating the implicit external argument in passives in the form of *by*-Agent as a syntactic argument, just like its overt counterpart in actives.¹⁸ Second, I adopt Harley (2013) and Hallman's (2013) assumption that the verbalizing *v*_{VDO/CAUS} layer, with the indices DO and CAUS, is responsible for *semantically* introducing the Agent/Causer role and that Voice satiates it *syntactically*. Specifically, because the verbalizing heads are distinguished by flavour, by the time *v*_{VDO/CAUS} enters into derivation, it indicates that the eventuality is an action/causation. This alludes to the semantic presence of an Agent/Causer role. A higher head, Voice_{ACT} or Voice_{PASS}, syntactically projects the argument in its specifier.

Regarding the first premise, Collins (2018) and Angelopoulos et al. (2020) provide a convincing argument that the *by*-Agent in English and Greek passives is a genuine syntactic argument. Specifically, they show that unlike run-of-the-mill adjuncts, passive *by*-Agents are capable of binding a structurally lower element. *By*-Agents in Korean passives behave just like their English and Greek counterparts in that the DP of the *by*-phrase can bind the reflexive, as in (37). This is in sharp contrast to DPs inside obvious adjunct PPs in (38) and (39).¹⁹

¹⁸This view is congruent with Landau's (2010) idea that (weak) implicit arguments including passive agents are syntactically represented.

¹⁹See Angelopoulos et al. (2020) for the technicality of how the DP embedded inside PP can bind a lower anaphor across P.

- (37) ku kulim-i **haksayngtul**_i-ey uyhay **casintul**_i-ul wihay kuli-eci-ess-ta.
 the picture-NOM **students**-by **themselves**-ACC for draw-ECI-PAST-DECL
 ‘The picture was drawn by the students_i for themselves_i.’
- (38) *ku kulim-i **haksayngtul**_i-kwa **casintul**_i-ul wihay kuli-eci-ess-ta.
 the picture-NOM **students**-with **themselves**-ACC for draw-ECI-PAST-DECL
 *‘The picture was drawn with the students_i for themselves_i.’
- (39) *ku kulim-i **haksayngtul**_i-taysin **casintul**_i-ul wihay kuli-eci-ess-ta.
 the picture-NOM **students**-on behalf of **themselves**-ACC for draw-ECI-PAST-DECL
 *‘The picture was drawn on behalf of the students_i for themselves_i.’

The binding capability of the passive *by*-Agent, which ordinary adjunct PPs lack, speaks for its status as a syntactic argument. I conclude, with Harley (2013) and Hallman (2013), that a conceptually desirable candidate for hosting it is Voice in (35).²⁰

With all the ingredients in place, I now turn to two of the three observations discussed in section 3 regarding the diverging patterns between the potential and passive constructions:

- (40) **Observation 1:** Potential *-eci* constructions reject modification by a *by*-Agent, whereas passives accept it (cf. (8), (11)–(12)).
- (41) **Observation 2:** Passive *-eci* constructions can only be formed out of transitive verbs, while potential *-eci* can be attached to either transitive or intransitive predicates (cf. (8)–(10)).

The structural difference between (35) and (36) provides an immediate explanation for Observation 1 in (40). The passive structure includes a Voice_{PASS} layer that hosts a covert external argument, as proposed in (35), whereas the potential structure lacks it, as in (36). Consequently, only passives allow the presence of the Agent argument in the form of a *by*-phrase. Potentials, which lack a VoiceP layer entirely, should not be compatible with a *by*-Agent.²¹ As will be shown in section 5.2, this effect of the Voice_{PASS} layer in allowing a *by*-Agent in passives, but prohibiting one in potentials, carries over to other conventional properties of implicit external arguments (Manzini 1983, Roeper 1987, Kallulli 2006).

With respect to Observation 2 in (41), it is worth noting that while the potential construction can be formed with intransitive predicates, it does not embed *any*

²⁰Legate (2014) treats grammatical object passives in parallel with (35), but does not do so for canonical passives. I thank a reviewer for pointing this out.

²¹A reviewer compares *-eci* to English *-able*. English adjectives attached with *-able* sometimes allow *by*-phrases, as in *This book is read-able by a 10-year-old* (McCawley 1975). They point out that although *-able* is not a passive morpheme, it is consistent with some mechanism that derives the passive structure. Korean *-eci* is both compatible (when in passives) and incompatible (in potentials) with the *by*-Agent. This strongly suggests that whichever syntactic head *-eci* occupies, it is not responsible for introducing the *by*-Agent. See section 7.2 for a somewhat different explanation of this (Wood 2015, Myler 2016, Kastner 2020, Tyler 2020).

intransitive. Compare the examples in (10), partially replicated in (42), with clear cases of unaccusative verbs, that is, verbs taking an inanimate Theme, in (43):

- (42) a. *eccenci ku siktang-ey cacwu ka-ci-n-ta.*
 somehow that restaurant-to often go-ECI-PRES-DECL
 ‘One gets to go to that restaurant often somehow.’
- b. *kwutwu-lul pes-ko wuntonghwa-lul sin-uni*
 heels-ACC take.off-and sneakers-ACC wear-after
cal tali-eci-n-ta.
 well/easily run-ECI-PRES-DECL
 ‘Taking off heels and putting on sneakers, one gets to run well/easily.’
- (43) a. **aisukulim-i nok-aci-ess-ta.*
 ice cream-NOM melt_{vi}-ECI-PAST-DECL
 Intended: ‘The ice cream got to melt.’ or ‘One got to melt the ice cream.’
- b. **hoswu-ka el-eci-ess-ta.*
 lake-NOM freeze_{vi}-ECI-PAST-DECL
 Intended: ‘The lake got to freeze.’ or ‘One got to freeze the lake.’

The contrast in the grammaticality in (42)–(43) demonstrates that the single argument of the verb appearing in the potential construction is understood to be a volitional entity — an Agent, by definition. In other words, potential *-eci* embeds unergatives. The eventuality that these predicates belong to is v_{DO} , as depicted in the potential structure in (36).²²

Notice that in both the passive and potential structures, *-eci* selects $v_{DO/CAUS}$ complements. This ensures that unaccusative verbs (v_{GO}), as a group, cannot appear in (35)–(36). Consequently, there are no passives of unaccusatives in Korean (fn. 27) and unaccusatives are not allowed in potentials either, ruling out (43).²³

²²Both *ka-* ‘go’ and *tali-* ‘run’ seem to be unergatives in Korean. They do not participate in the unaccusative-causative alternation (cf. (55)), and they cannot appear with a resultative phrase (Levin and Rappaport 1995):

- (i) a. **Chelswu-ka phikonha-key tali/ka-(e)ss-ta.*
 Chelswu-nom tired-RES run/go-PAST-DECL
 Intended: Chelswu ran/went and as a result, he became tired.
- b. *hoswu-ka tantanha-key el-ess-ta.*
 lake-nom hard-RES freeze_{vi}-PAST-DECL
 ‘The lake froze solid.’

The unacceptability of (43) shows that the understood subject of the potential construction is an Agent or that it can be coerced into one. To obtain the second intended reading with *nok-* ‘melt_{vi}’ and *el-* ‘freeze_{vi}’, one must lexically causativize the root and then attach *-eci* (cf. (58)).

²³Recall that when *-eci* follows stative unaccusatives (v_{BE}), it produces derived change-of-state predicates, as in (15)–(16). In this light, it is interesting to note that when stative transitives are embedded under *-eci*, they invoke a somewhat agentive interpretation (e.g., *po-* ‘see’ vs. *po-aci* ‘read/look at-ECI’). Under the present analysis, this can be seen as a type of meaning shift of the root allowing it to fit into the $v_{DO/CAUS}$ specification in (36).

Now let us return to Observation 2 in (41) — the restriction on passives to appear exclusively with transitives, in contrast to the relatively lenient selection made by potentials. Since the structure up to v_{GOP} is identical between the passive and potential constructions in (35)–(36), it is reasonable to deduce that $\text{Voice}_{\text{PASS}}$ is responsible as well. Let us assume that $\text{Voice}_{\text{PASS}}$ has a requirement that can be satisfied by internally merging an internal argument — we can label it, for example, an uninterpretable [+Th (eme)] feature, without attaching any theoretical significance to the theta role itself. This yields the desired outcome. Since eventive unaccusatives are excluded for the independent reason given above, we are now concerned only with agentive transitives and unergatives. Specifically, in the passive structure in (35), the uninterpretable [+Th] feature of $\text{Voice}_{\text{PASS}}$ can be checked by a lower Theme DP if the agentive/causative root is transitive. With unergative roots, on the other hand, this [+Th] feature is left unchecked, causing the derivation to crash. By contrast, the potential structure in (36) lacks $\text{Voice}_{\text{PASS}}$, along with its [+Th] requirement. As a consequence, whether the agentive/causative root is transitive or unergative is irrelevant to the well-formedness of the resulting structure. This correctly predicts that the potential construction can be produced with either transitive or unergative predicates.²⁴

A reviewer points out that this postulation of [+Th] on $\text{Voice}_{\text{PASS}}$ makes an interesting prediction. Specifically, verbs with an understood object like ‘eat_{vi}’ should not be allowed in passives. This is because with no internal argument projected in syntax, these verbs cannot satisfy the [+Th] requirement of $\text{Voice}_{\text{PASS}}$. In contrast, they should have no problem appearing in potentials, since potentials, lacking $\text{Voice}_{\text{PASS}}$, do not care about the transitivity of the embedded predicate. As expected, when this subclass of verbs appear with *-eci*, they are unambiguously potential, not passive:

- (44) kiwun-ul chali-ko namyen, (*hwanca-ey uyhay) mek-eci-n-ta. <potential>
 strength-ACC regain-after (*patient-by) eat_{vi}-ECI-PRES-DECL
 ‘After regaining strength, one gets to eat.’

I have thus far argued that the presence or not of $\text{Voice}_{\text{PASS}}$ in the structure is responsible for the two phenomena in (40)–(41). In the subsection below, I present additional syntactic consequences that follow from this proposal.

5.2. Empirical consequences

The current proposal makes some additional predictions with respect to the implicit external argument introduced by $\text{Voice}_{\text{PASS}}$. Specifically, the proposal predicts that the potential construction should fail in other traditional diagnostics for the presence of an implicit external argument (Manzini 1983, Roeper 1987, Kallulli 2006).

First, passives are cross-linguistically known to accept modification by agent-oriented adverbs, as in (45a). This is in sharp contrast to unaccusatives, as in

²⁴Notice that this [+Th] feature is more of a parametric than a universal property of $\text{Voice}_{\text{PASS}}$, since there are languages whose passives are formed based on intransitive verbs as well as transitives.

(45b), which cannot be modified by agent-oriented adverbs. The different patterns between passives and unaccusatives in (45) are attributed to the presence of an implicit external argument in the former and the lack of it in the latter.

- (45) a. The ship was sunk **deliberately**.
 b. *The ship sank **deliberately**. (Kallulli 2006: 202)

If potential constructions are syntactically free of the external argument by virtue of lacking Voice, as proposed in (36), we expect them to be incompatible with agent-oriented adverbs. This prediction is confirmed:

- (46) *ku siktang-ey **uytocekulo** ka-ci-n-ta. <potential>
 that restaurant-to **deliberately** go-ECI-PRES-DECL
 Intended: *‘One gets to go to that restaurant deliberately.’
- (47) *kaymyenghan ilum-i **uytocekulo** cal oywu-eci-in-ta.
 renamed name-NOM **deliberately** easily memorize-ECI-PRES-DECL
 Intended: *‘One gets to memorize the changed name easily deliberately.’

In contrast, we predict passive *-eci* to be able to occur with agent-oriented adverbs, just as with its English counterpart in (45a). This is because the passive structure in (35) involves the Voice_{PASS} head licensing the implicit external argument, which in turn can be associated with the agent-oriented adverb. Korean passives behave as expected:

- (48) ku sasil-i John-ey uyhay **uytocekulo** kamchwu-eci-ess-ta. <passive>
 the fact-NOM John-by **deliberately** hide-ECI-PAST-DECL
 ‘The fact was concealed by John deliberately.’

Recall (33a), in which the transitive predicate followed by *-eci* is ambiguous between passive and potential interpretations. If the current proposal is correct, adding *uytocekulo* ‘deliberately’ in such a sentence should ensure the passive reading, eliminating the potential reading. This prediction is borne out in (49):

- (49) ku kulim-i **uytocekulo** kuli-eci-ess-ta.
 the picture-NOM **deliberately** draw-ECI-PAST-DECL
 Possible: ‘The picture was drawn deliberately.’
 Not possible: *‘One got to draw the picture deliberately.’

Another relevant empirical domain is control. The understood Agent in passives is attested to be able to lead a control clause, as in (50a). This, however, is not allowed with unaccusatives like (50b). This contrast has traditionally been explained in terms of whether an implicit external argument is present (50a) or not (50b).

- (50) a. The boat was sunk [to collect the insurance].
 b. *The boat sank [to collect the insurance]. (Roeper 1987: 268)

The present analysis predicts the potential *-eci* construction to be incapable of control. With no Voice_{PASS} above *-eci* in the potential structure, there is no external argument to function as the controller of the embedded clause. This prediction is borne out:

- (51) *hyuil-ul culki-ki wihay kukcang-ey cal ka-ci-n-ta. <potential>
 holiday-ACC enjoy-in order to theater-to easily go-ECI-PRES-DECL
 ‘One easily gets to go to the movies to enjoy the holiday.’

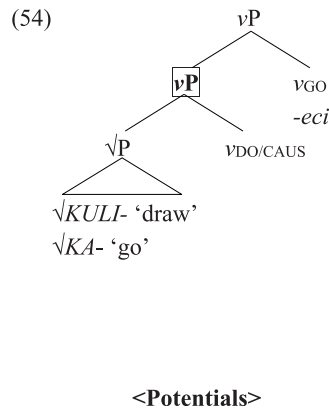
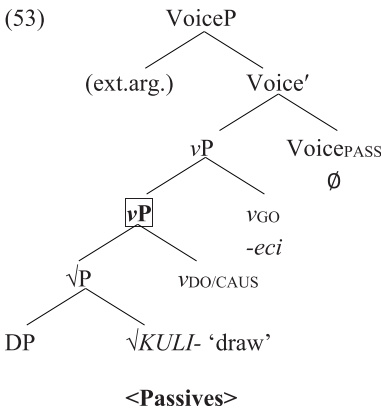
In contrast, the passive *-eci* construction is expected to pattern just like its English counterpart in (50a) in allowing for an embedded control clause. This is confirmed in (52). The implicit external argument in (52) is understood to be the Agent argument of both the matrix predicate *cosengha-* ‘make’ and the embedded predicate *cis-* ‘build’:²⁵

- (52) phyenlihan hwankyeng-ul cosengha-ki wihay (si-ey uyhay) <passive>
 convenient environment-ACC make-in order to (city-by)
 pokci sisel-i ci-eci-ess-ta.
 welfare facility-NOM build-ECI-PAST-DECL
 ‘To promote a convenient community environment, welfare facilities were built (by the city).’

To summarize, Korean potential and passive *-eci* constructions pattern exactly as the current proposal predicts with respect to agent-oriented adverbs and control. While passive and potential constructions share the v_{GO} P headed by *-eci*, the presence/absence of the $Voice_{PASS}$ head results in their systematic syntactic contrasts.

5.3. v_{GO} selecting another vP in passives and potentials

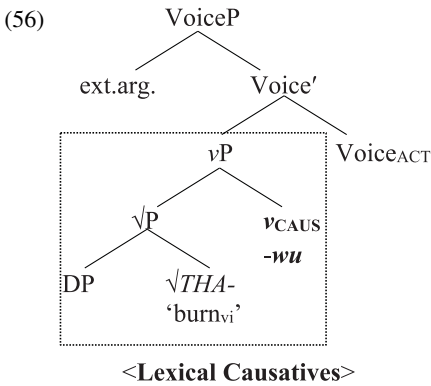
We have thus far focused on uncovering the category of *-eci* (section 4) and the syntactic head that selects it (or not) in the passive and potential structures (sections 5.1–2). In this subsection, I comment on the complement of *-eci* in these two constructions. The structures proposed for passives and potentials in (35)–(36) are repeated below as (53)–(54). Notably, in both (53) and (54), the v_{GO} head realized by *-eci* selects a vP as its complement, rather than directly selecting for a \sqrt{P} :



²⁵Lim and Zubizarreta (2012) report that passive *-eci* constructions do not allow agent-oriented adverbs or control clauses. However, carefully constructed examples such as (48) and (52) show that this is not the case — an observation also made in earlier research on passives (Hong 1991, S. D. Park 2005, H. K. Jung 2014a). The judgments become clear when passive *-eci* is compared to potential *-eci*, as revealed above.

Consider the alternation in (55). Based on the discussion in section 4.1, within the framework this paper adopts, lexical causative suffixes occupy the ν position directly above the root (Pylkkänen 2002, 2008; Harley 2008; Miyagawa 2011; H. K. Jung 2014b). This means that the lexical causative suffix in (55b) is a realization of the first verbalizing head — ν_{CAUS} — taking an unaccusative root, as depicted below in (56).

- (55) a. phyenci-ka tha-ss-ta.
 letter-NOM burn_{vi}-PAST-DECL
 ‘The letter burnt.’
- b. Jiwoo-ka phyenci-lul thay-wu-ess-ta.
 Jiwoo-NOM letter-ACC burn_{vi}-CAUS-PAST-DECL
 ‘Jiwoo burnt the letter.’



Connecting this line of reasoning to the present proposal in (53)–(54), where the ν_{GO} realized by *-eci* selects a νP , we are led to predict that the $\nu_{\text{CAUS}}\text{P}$ marked by the dotted line in (56) is an eligible complement for the ν_{GO} in both passives and potentials. Morphologically, this means that both passive and potential *-eci* should be able to follow a lexical causative suffix. This prediction is confirmed in (57)–(58):

- (57) ku phyenci-ka Jiwoo-ey uy hay thay-wu-eci-ess-ta. <passive>
 the letter-NOM by Jiwoo burn_{vi}-CAUS-ECI-PAST-DECL
 ‘The letter was burnt by Jiwoo.’
- (58) i phayngi-nun (cal an) tol-li-eci-n-ta. <potential>
 this spinning top-TOP (well/easily NEG) spin_{vi}-CAUS-ECI-PRES-DECL
 ‘One (does not) gets to spin this spinning top (easily).’

At this point let us revisit the lexical inchoative examples discussed in the (b) examples in (21)–(24). The sentence pair examined in (27) earlier is repeated below as (59):

- (59) a. *namwusip han cang-i ttel-ess-ta.
 leaf one-NOM TTEL-PAST-DECL

b. namwusip han cang-i **ttel.eci**-ess-ta. <lexical inchoative>
 leaf one-NOM TTEL-PAST-DECL
 ‘A leaf fell.’

It is worth reaffirming here that unlike the passive and potential *-eci*, the v_{GO} in lexical inchoatives must appear immediately adjacent to the root. In other words, the v_{GO} *-eci* in (59b) is root-selecting. This is because in the case of lexical inchoatives, the *-eci* suffix is the first verbalizer, as can be seen from the fact that the root on its own does not denote anything in (59a). Thus, in (59b), *-eci* completes the verb meaning as it assigns the root a category. This is what makes these limited set of roots cran morphemes.²⁶

Conversely, the meaning of the embedded predicate in both the potential and passive construction is readily identifiable. According to the proposal in (53)–(54), this property of passive/potential *-eci*, which distinguishes it from the *-eci* in lexical inchoatives, follows from the fact that *-eci* in (53)–(54) takes an already verbalized unit — namely, a vP — as its complement.

Thus far, I have argued for the first two claims posed at the outset of this paper — that (i) *-eci* is a phonological exponent for v_{GO} in Korean and that (ii) the potential and passive constructions built upon *-eci* differ from each other in that the former lacks the functional head hosting the covert external argument in syntax, whereas the latter has it.

Based on the selectional properties associated with the v_{GO} head, we can establish a set of diagnostics as in (60), which account for the *-eci* syncretism in Korean:

(60)

$v_{GO} \leftrightarrow -eci$	Passive	Potential	Derived COS	Lexical inchoative
#1 Does v_{GO} take as its complement vP/\sqrt{P} ?	vP			\sqrt{P}
#2 What type of vP does v_{GO} select for?	$v_{DO}/CAUS$		v_{BE}	
#3 Is v_{GO} selected by $Voice_{PASS}$?	Yes	No		

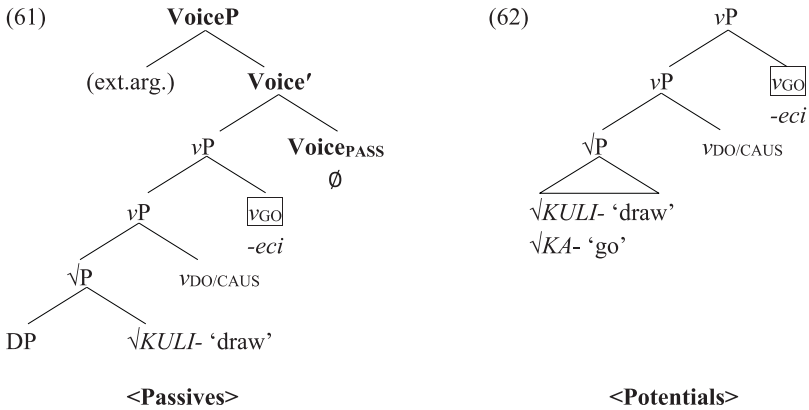
6. THE POTENTIAL SEMANTICS AS A REFLEX OF SYNTAX

6.1. Potentiality as syntactic spontaneity

I have thus far argued that the presence or absence of $Voice_{PASS}$ in the structure results in the potential and passive constructions exhibiting a variety of different morpho-syntactic patterns. Having established the structural distinction between the two constructions, I now turn to my last question — what gives rise to the

²⁶A reviewer wonders why (59b) cannot be interpreted as a passive, since a root can be directly selected by v_{GO} , which in turn can be selected by $Voice_{PASS}$. I assume this is not allowed due to the mismatch between the unaccusative verb semantics and the requirement of $Voice$ for an external argument.

potential semantics, as distinguished from its passive counterpart? I propose that the key to the potential semantics is its syntactic composition. Specifically, it is invoked by the interplay among three structural factors in (36), repeated below as (62) — (i) the eventuality of v_{GO} marked by *-eci*; (ii) the semantics of the selected $v_{DO/CAUS}$; and (iii) the absence of the Voice layer.

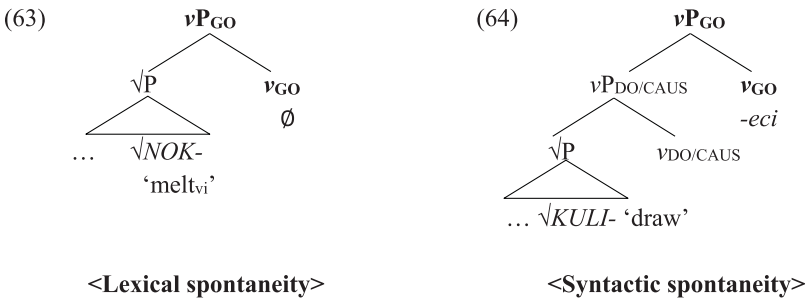


An active agentive/causative verb in Korean is never marked with *-eci*. Under the present analysis, this means that once v_{GO} is stacked on $v_{DO/CAUS}P$, the resulting structure becomes either a passive or potential configuration. In the passive in (35), repeated here as (61), the covert argument introduced by $Voice_{PASS}$ is understood to be the Agent/Causer associated with the lower $v_{DO/CAUS}P$ and is responsible for the change event marked by $v_{GO}P$. Compositionally, this yields the reading that an action/causation (i.e., v_{CAUS}) has occurred (i.e., v_{GO}) due to the external argument.

Conversely, there is no syntactic external argument that can be identified as the initiator of the $v_{DO/CAUS}P$ and that brings about the change marked by v_{GO} in the potential structure in (62). Without a structural position to hold an external argument, there is no means of specifying “who” is responsible for the action/causation. The attention is thus on “what” happened — a change (i.e., v_{GO}) leading to an action/causation (i.e., $v_{DO/CAUS}$). This results in the understanding that something took place that made an action/causation possible, giving rise to the potentiality or possibility interpretation, translated here as ‘get/come to do X’.

The semantic effect of not having an external argument in (62) is reminiscent of lexically-encoded spontaneous events expressed with inchoative verbs (e.g., *nok-* ‘melt_{vi}’, *tha-* ‘burn_{vi}’), where a change-of-state occurs with no external force, as expressed in (63). Cross-linguistically overt markers of spontaneity are observed

to be attached to verbs whose lexical content is not inherently associated with spontaneous events (Haspelmath 1993, 2006; Schäfer 2008; Alexiadou et al. 2015). Korean potentials can be understood in a similar vein. The suffix *-eci*, as the overt v_{GO} marker, attaches to verbs of action/causation (i.e., $v_{DO/CAUS}$), which are the least likely to be construed as spontaneous events.²⁷ Given that the interpretation of spontaneity in the potential structure is established above an already-verbalized unit (i.e., vP), as in (62) and (64), the potential structure can be understood to express ‘derived spontaneity’ or ‘syntactic spontaneity’.²⁸ This contrasts with the ‘lexical spontaneity’ expressed in (63), where the v_{GO} head selects for the inchoative root. This implies that just as there are lexical and syntactic causatives, there is lexical and syntactic spontaneity. Importantly, both (63) and (64) involve an event of occurrence (i.e., v_{GO}) and neither involves a structural external argument (i.e. the lexically spontaneous event in (63) due to the inherent property of the root, whereas the potential structure in (64) due to the fact that $Voice_{PASS}$ is left unmerged.)



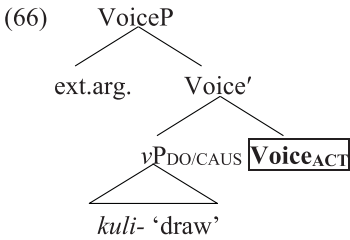
The proposal that *-eci* can participate in deriving spontaneity provides an explanation for the aforementioned observation that *-eci* is never found in active agentive/causative verbs. In particular, (65), where *-eci* follows a transitive verb in an active voice, is ungrammatical. According to the current assumption about the structure of verb phrases in section 2.2, in actives $Voice_{ACT}$ directly selects for the vP associated with the root, as in (66). The ungrammaticality of (65) with *-eci* can then be

²⁷Yeon (2015) also connects the notion of spontaneity to potential *-eci*. Note, however, that under the present account, *-eci* is not the spontaneity marker *per se*, since v_{GO} also appears in the passive structure. It is the compositional understanding of the syntactic heads involved in (62) that yields the spontaneity interpretation.

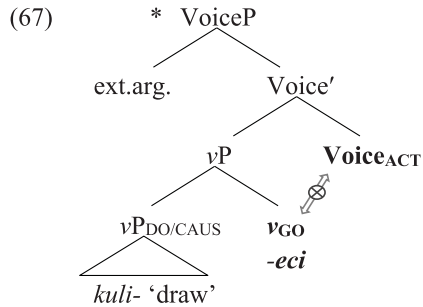
²⁸See section 5.3 for arguments that *-eci* in the potential (as well as passive) construction(s) selects for a vP complement.

attributed to the restriction that the Voice_{ACT} head cannot select for *v*_{GO}, as represented in (67). What gives rise to such restriction?

- (65) haksayngtul-i pyek-ey kulim-ul kuli-(*eci)-ess-ta.
 students-NOM wall-on picture-ACC draw-(*v*_{GO})-PAST-DECL
 ‘The students drew a picture on the wall.’



<Actives in Korean>

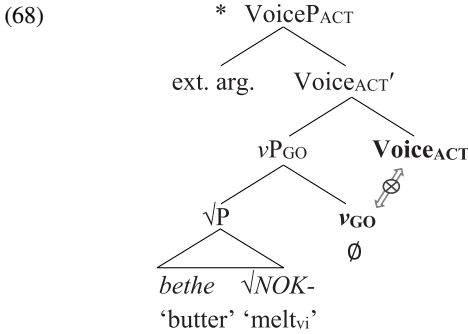


<Incompatibility between -eci and Voice_{ACT}>

I suggest that the incompatibility between the Voice_{ACT} and -eci follows from the clash between the external argument of Voice_{ACT} and the spontaneous events that the structure up to *v*_{GO}P represents. In line with this idea, Cuervo’s (2003) original insight is that the events that *v*_{GO} characterizes lack a subject.²⁹ That is, lexically encoded spontaneous events associated with *v*_{GO} are incompatible with an external argument that directly exerts force on the Theme argument. This is represented in (68). The Korean data in (69a) confirms this generalization. To express this kind of relationship in a transitive structure, *v*_{GO} must be replaced with *v*_{CAUS}, which is in turn selected by Voice_{ACT}, as in (69b).³⁰ This yields a lexical causative structure, previously discussed in (56). To wit, lexically spontaneous events introduced by *v*_{GO} cannot be directly selected by Voice_{ACT}.

²⁹The “subject” here should be taken to be the external argument of Voice_{ACT}, as the sub-structure headed by *v*_{GO} may further project into VoiceP_{PASS}, which also hosts an external argument, albeit implicitly.

³⁰An alternative explanation more congruent with Cuervo’s system is that *v*_{DO}, which is selected by Voice_{ACT}, selects *v*_{GO}, rather than *v*_{CAUS} substituting for *v*_{GO}. In either case, Voice_{ACT} does not enter into a selectional relationship with *v*_{GO}.



<*Lexical spontaneity and Voice_{ACT}>

- (69) a. *Yumi-ka bethe-lul nok-ass-ta.
 Yumi-NOM butter-ACC melt_{vi}-PAST-DECL
 Intended: ‘Yumi melted butter.’
- b. Yumi-ka bethe-lul nok-i-ess-ta
 Yumi-NOM butter-ACC melt_{vi}-CAUS-PAST-DECL
 ‘Yumi melted butter.’

Now we can extend this reasoning to *-eci*, the overt exponence for *v_{GO}*. Just as lexically-spontaneous events are incongruent with the external argument of Voice_{ACT}, as in (68), we can posit that the spontaneity interpretation of potentials cannot be established with Voice_{ACT}, as in (67). The unified account of *v_{GO}* as part of spontaneous events provides a natural account of why *-eci* cannot be taken by Voice_{ACT}.

Note, however, that while Voice_{ACT} cannot select for *-eci*, Voice_{PASS} can, producing the passive structure in (61). Thus, if *v_{GO}* is not compatible with Voice_{ACT} in connection to some property of the external argument that Voice_{ACT} introduces, this implies that the sorts of external arguments introduced by Voice_{ACT} and those by Voice_{PASS} may not be homogenous.

As a full-scale investigation of this idea is beyond the scope of this study, I leave the matter open. However, I present some data that are consistent with this possibility. In Korean, active sentences tend to resist an indirect participant (Sichel 2010) as their external argument, as shown by the infelicity of (70a). To express the intended meaning, one opts for the passive counterpart in (70b):

- (70) a. #silswu-ka kukes-ul mantul-ess-ta.
 mistake-NOM it-ACC create-PAST-DECL
 Intended: ‘A mistake created it.’
- b. kukes-un silswu-ey uyhay mantul-eci-ess-ta.
 it-TOP mistake-by create-ECI-PAST-DECL
 ‘It was created by a mistake.’

Example (70a) is infelicitous because native speakers expect the subject of (70a) to be the entity that directly acts upon the Theme within the described eventuality. In other

words, the external argument of Voice_{ACT} is expected to be a direct participant, with the role of an Agent or a direct Cause. *Silswu* ‘a mistake’ in (70a), however, cannot be an appropriate subject because a mistake is not inherently capable of creating something, although it could be an indirect Cause for the creation.³¹ In contrast, the set of external arguments hosted by Voice_{PASS} is not limited to the role of Agent/direct Cause. Rather, it includes a wider range of external forces that either directly or indirectly promote a change (v_{GO}) leading to the embedded event ($v_{DO/CAUSP}$). As a result, the passive counterpart in (70b) allows an indirect Cause to be introduced by the postposition *-ey uyhay* ‘by’. The patterns observed in (70) suggest that the group of external arguments hosted by Voice_{ACT} and that of Voice_{PASS} are not identical, at least in Korean. I tentatively conclude that this distinction between Voice_{ACT} and Voice_{PASS} is correlated with their choice of complements, including their selectional relationship with *-eci*.³²

6.2. Unspecified external arguments and facilitators of potentiality

So far, I have shown that the potential and passive semantics results from the interplay of the respective syntactic heads involved. In so doing, the two non-active structures were distinguished from the structure with Voice_{ACT}. The present analysis of the potential and passive constructions offers a refinement of Shibatani’s (1985) notion of ‘Agent defocusing’. Shibatani unifies passives and passive-like constructions cross-linguistically under a prototype analysis, arguing that the key pragmatic function of passives and potentials is to defocus an Agent, not to promote the Theme (Perlmutter and Postal 1977). This commonality between passives and potentials led Yeon (2003, 2015) to subsume the potential *-eci* construction under the umbrella of passives. Passives and potentials diverge, however, in the extent to which agent defocusing applies. In passives, defocusing of an Agent takes place incompletely because the Agent can remain as an optional *by*-phrase. Other passive-like constructions that cannot express the logical subject, including potentials, are a consequence of having undergone complete defocusing of Agents.

This pragmatic concept can be embodied syntactically. Under the current analysis, agent defocusing can be explained by the substructure that the passive and potential constructions share. Essentially, agent defocusing is a consequence of not projecting Voice_{ACT} on top of $v_{DO/CAUSP}$, but instead v_{GO} starting to take up the

³¹Adopting Sichel’s (2010) dichotomy, Cause can either be a “direct” or “indirect participant” depending on its contribution within the described event. Inanimacy thus is not a decisive factor. *Kwulum* ‘cloud’ is allowed as the subject of an active sentence because it can be directly responsible for *hiding the moon* — that is, ‘cloud’ is a “direct participant” below:

(i) kwulum-i tal-ul kali-ess-ta.
cloud-NOM moon-ACC hide-PAST-DECL
‘The cloud hid the moon.’

³²This conclusion is in line with Folli and Harley (2005, 2007), who argue that two types of v heads impose distinct thematic conditions on their external arguments, which is in turn correlated with their selection of complements. Alexiadou et al. (2013) propose a similar treatment of the ‘direct participation’ effect by subcategorizing the external-argument-introducing head.

structure. Further projection of Voice_{PASS} along with its implicit external argument gives rise to what Shibatani (1985) dubs “incomplete” defocusing in passives. “Complete” defocusing of Agents, on the other hand, corresponds to the lack of Voice_{PASS} and the subsequent absence of the external argument in syntax entirely. In this sense, ‘agent defocusing’ can be viewed as a by-product of the derivation of $v_{\text{DO/CAUS}P}$ projecting on to v_{GO} or further up to Voice_{PASS}.

Taken together, the last observation made about (9)–(10), repeated below as (71), can be explained in light of the potential structure lacking Voice_{PASS} in (36).

(71) **Observation 3:** *Easily*-type adverbs and the negative particle facilitate the potential interpretation.

Imagine a situation where a particular action/causation is carried out *easily* due to some reason not pertinent to the Agent/Causer. For example, the restaurant may have some pleasant feature that attracts customers in (10a). Wearing sneakers, instead of heels, makes running easy in (10b). These kinds of situation better match a syntactic structure where the Agent/Causer is unspecified — to the extent that it has no place in syntax, as in the potential structure in (36). Likewise, one could readily think of an opposite scenario where some obstacle, again not relevant to the Agent/Causer, hinders carrying out the action/causation. If a restaurant has got an unappealing property that keeps customers away in (10a), this could result in one’s *not* going to the restaurant. The negative particle in combination with the potential construction delivers this meaning — a change (v_{GO}) leading to the result of ‘not going to the restaurant’ (v_{DO}). Notably, modifiers like ‘easily’ or the negative particle do not *require* syntactic absence of the external argument. They simply help build scenarios that are conducive to the potential semantics. These modifiers are therefore allowed in passives and actives as well.

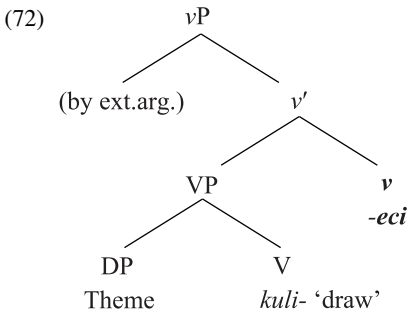
To sum up, the absence of Voice_{PASS} is the source of the semantic properties of the potential construction. With no syntactic external argument associated with a change leading to the downstairs agentive/causative event, the result is a spontaneous interpretation of ‘getting/coming to do X’. ‘Potential’ is thus a descriptive term for a syntactic structure where an eventuality of ‘change’ selects for another eventuality of ‘action/causation’, while syntactically not projecting the Agent/Causer argument.

7. ALTERNATIVE ANALYSES

In this section, I review alternative explanations of Korean *-eci*. These accounts share with the current proposal the principle of analyzing the affix syntactically in passives and other related constructions. However, they differ from the present account and from each other in their key assumptions. I show how this divergence leads to different, sometimes undesirable, empirical and conceptual consequences. Some of the alternatives could prove functional provided they adopt the conclusion of this study — that the *-eci* syncretism results from the suffix *-eci* realizing the same syntactic head v , separate from Voice.

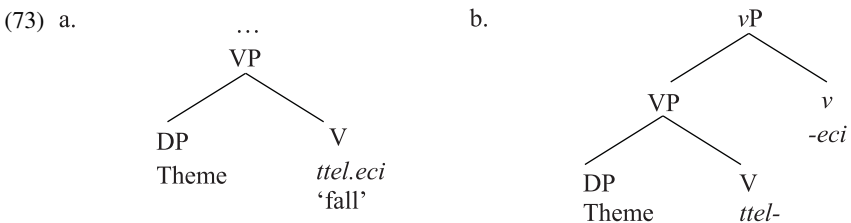
7.1. Passive *-eci* as *v* in the bipartite verbal system

Earlier theoretical studies of Korean *-eci* largely concentrated on its occurrence in passives and were conducted within the traditional bipartite verbal configuration (Chomsky 1995, Kratzer 1996). Park and Whitman (2003) and S. D. Park (2005) represent this line of thought. In particular, Park and Whitman (2003) treat *-eci* in the passive construction as an instance of the functional *v* above VP, as in (72).



In the passive structure in (72), *-eci*, as the passivizing morpheme, occupies the functional head introducing the implicit external argument. An immediate challenge for the structure in (72) is that it cannot be extended to other occurrences of *-eci*. Without additional machinery to explain why, unlike with passives, there is in this case no external argument involved in the potential, derived change-of-state, and lexical inchoative constructions, the structure in (72) cannot, by itself, provide a comprehensive account of all four constructions of *-eci*.

Park and Whitman's account cannot explain lexical inchoatives. As the analysis focuses on the passive usage of *-eci*, lexical inchoatives like *ttel.eci-* 'fall' would receive either of the two following treatments:



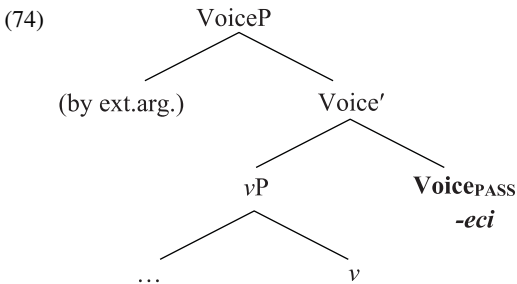
First, the suffix *-eci* could be taken to go under V together with the bound root *ttel-*, as in (73a). The option in (73a) faces a problem when compared with (72). Specifically, one is forced to conclude that passive *-eci* occupies *v* as in (72), whereas the same morpheme is part of V in (73a). An alternative would be to posit that the bound root *ttel-* goes under V and its *-eci* suffix under *v*, as in (73b). This creates yet another problem. Notice that in the bipartite structure such as (72)–(73), the downstairs predicate is labeled as V, meaning that it represents the syntactic category of verb. However, with a cran morpheme like *ttel-*, neither its meaning nor its category can be identified on its own. Thus, the structural representation in (73b), where the

cran root *ttel-* is taken to be the lexical verb, cannot be an accurate representation of the data at issue.³³

In summary, alongside the vast cross-linguistic evidence that has triggered the paradigm shift to the tripartite verb structure (Pyllkkänen 2002, 2008; Cuervo 2003, 2014, 2015; Alexiadou et al. 2006; Harley 2013, 2017, among others), analyzing *-eci* as the *v* on top of lexical VP suffers from its own empirical issues. Under an analysis like (72), the syncretism exhibited by *-eci* is not handled systematically. We can thus conclude that a more intricate verbal structure is needed for an adequate syntactic account of the *-eci* syncretism.

7.2. Variants of Hypothesis 1

Recall Hypothesis 1, which is considered in (14a) and elaborated below, where I assumed *-eci* to occupy the Voice (passive) head in my previous studies (H. K. Jung 2014a, 2014b, 2016a):



As discussed in section 4.1, while (74) may be consistent with the passive data in Korean, it cannot provide a comprehensive account of the environments where *-eci* occurs. With no further assumptions, (74) is inapplicable to derived change-of-state and lexical inchoative predicates, whose structure necessarily lacks an external argument. The various pieces of evidence presented in section 5 to explicate the potential structure provide further support for this conclusion. Specifically, the fact that the potential structure is incompatible with a by-Agent and agent-oriented adverbs and that the structure fails to control motivates an analysis of the potential structure where the *Voice_{PASS}* head hosting the implicit external argument is missing entirely.

Note that this conclusion is only valid under the premise about the basic verb phrase adopted in section 2.2. Let us split the relevant portion of this premise into two parts:

³³If one takes a position such as Marantz (1997) by assuming that V is in fact an acategorical root, rather than a verbalized V, and adopt contextual allosemy (Wood 2015), a way around this could be worked out. However, such an alternative necessitates that Korean *v* and Voice be projected as a single head (Pyllkkänen 2002, 2008), contrary to fact. See fn. 12.

- (75) **Assumption 1:** A verb phrase basically consists of a category-neutral root, verbalizing ν , and Voice.
- (76) **Assumption 2:** Voice introduces a syntactic external argument.

For the “tripartite” system to work, the first assumption in (75) cannot be violated. This study has additionally assumed (76), where Voice is required to introduce a structural external argument, whether overt (i.e., Voice_{ACT}) or covert (i.e., Voice_{PASS}).

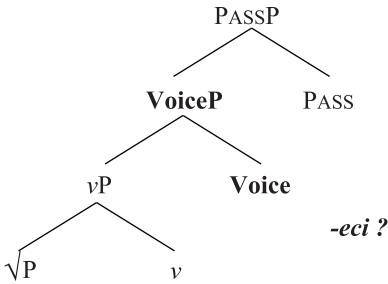
As previously mentioned in section 4.1, there are syntacticians who have taken a different perspective from (76) by allowing Voice not to introduce an external argument (Schäfer 2008, Bruening 2012, Legate 2014, Alexiadou et al. 2015, Wood 2015, Myler 2016, Kastner 2020, Tyler 2020). Two different conceptions of Voice are relevant here — the unsaturated Voice head present in passives (and middles) (Bruening 2012) and the semantically expletive Voice (Schäfer 2008, Alexiadou et al. 2015). In this section, I reconnect the alternatives to the findings revealed in section 4 and show that regardless of one’s theory of Voice, *-eci* cannot be the phonological exponence for Voice. The empirical challenges for these alternatives thus corroborate the proposal that *-eci* is a realization of ν , marking the eventuality of ‘change’. However, if the present conclusion that *-eci* is ν is adopted and some additional issues are dealt with, the hypotheses advancing specifier-less Voice can be extended to accommodate the passive and potential structures. I briefly sketch how below, turning first to introducing the two types of Voice with no specifier.

As pointed out by a reviewer, in an alternative approach to passives, the syntactically absent external argument is existentially quantified over (Bach 1980, Keenan 1980, Williams 1987). Focusing on English passives, Bruening (2012) argues for an analysis distinguishing semantic and syntactic requirements on Voice. Actives and passives involve the same Voice requiring an external argument. In actives, this requirement is satisfied by the conventional merging of the external argument in the specifier of Voice. In passives, the selectional feature of Voice remains unchecked until it combines with a higher head, PASS. As PASS checks off the selectional feature, it also saturates Voice by existentially closing over the external argument. This yields the existential reading that the action/causation described by the verb is performed by *somebody* when a *by*-phrase is omitted. Alternatively, when a *by*-phrase appears in passives, it attaches to Voice’ as an adjunct and specifies the external argument. Nonetheless, because *by*-phrase is an adjunct in Bruening’s analysis, it cannot check off the selectional requirement of Voice for an external argument by itself. PASS takes the resulting VoiceP as its complement, simply checking off the selectional feature, but this time without existentially binding the external argument.

The head-final representation of passives of Bruening’s analysis is offered in (77). Importantly, the Voice head in (77) is actually the active Voice, semantically not yet saturated (until it combines with PASS) and syntactically specifier-less. Notice also the single ν layer below Voice. This ν corresponds to the downstairs

$v_{\text{DO/CAUS}}$ in the proposed passive structure in (35). Thus, (77) is missing the v_{GO} layer, which the current analysis argues is the locus of *-eci*.

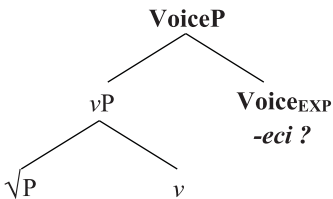
(77) Specifier-less Voice #1



The passive structure in (77) cannot be directly applied to passives in Korean. Above all, the structure does not contain a syntactic projection that *-eci* can be inserted under. In Bruening’s analysis, passives employ a single, active Voice head. However, as shown in section 6.1, *-eci* cannot appear with active Voice, meaning *-eci* cannot be the realization of an active Voice with no specifier. *-eci* cannot be PASS, either. Viewing *-eci* as PASS would render the other *-eci* constructions — potential, lexical inchoative, derived change of state — unexplained. The passive structure in (77) thus cannot adequately capture the Korean passive data.³⁴

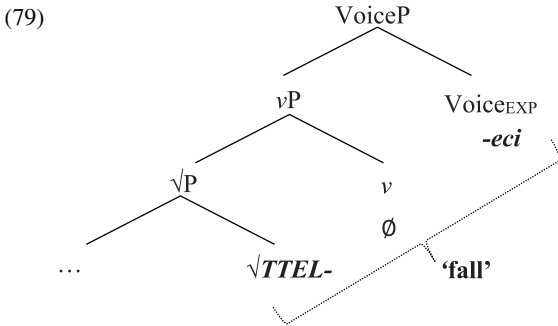
The second type of Voice with no syntactic external argument is expletive Voice, $\text{Voice}_{\text{EXP}}$. In their seminal works on $\text{Voice}_{\text{EXP}}$, Schäfer (2008) and Alexiadou et al. (2015) have argued that the Voice head can be semantically and/or syntactically active and/or inert, yielding four subtypes of Voice. Of these, $\text{Voice}_{\text{EXP}}$ is both semantically and syntactically inactive, meaning that $\text{Voice}_{\text{EXP}}$ not only lacks a specifier but also does not semantically entail the external argument. Nevertheless, $\text{Voice}_{\text{EXP}}$ claims its place in syntax due to its morphological marking. Anticausatives in Greek are classified as belonging to this category. One might suggest that the consistent failure to detect the implicit argument in the potential construction (section 5) could be attributed to the semantically void nature of $\text{Voice}_{\text{EXP}}$ and that *-eci* instantiates this $\text{Voice}_{\text{EXP}}$:

(78) Specifier-less Voice #2



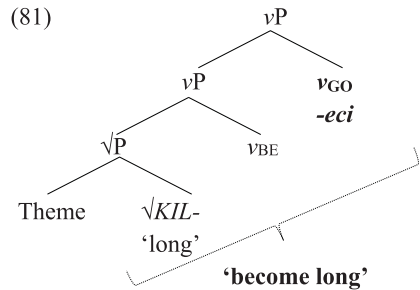
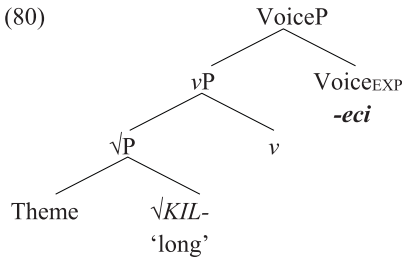
³⁴Another challenge to this account is that the *by*-Agent is in fact an argument, not an adjunct, as argued by Collins (2018) and Angelopoulos et al. (2020). As observed in (37)–(39), the same issue reemerges in Korean.

However, the very evidence taken in section 4.1 to show that *-eci* is an exponence of the verbalizer introducing a ‘change’ serves as evidence against this possibility. First, the hypothesis in (78) would predict the following structure for lexical inchoatives, where *-eci* occupies Voice_{EXP} and its complement *v* is phonologically null:



The structure in (79) would correctly predict that *tte.eci* ‘fall’ behaves as an unaccusative since Voice_{EXP} lacks the external argument both syntactically and semantically. However, with lexical inchoatives like *tte.eci*, the root receives both its meaning and its category as verb after suffixation of *-eci*. This unique property of lexical inchoatives contradicts the representation in (79), where Voice_{EXP} is realized by *-eci*, instead of *v*, which, by hypothesis, assigns the root the category of verb.

In addition, the change-of-state predicates derived with *-eci* such as (15b) and (16b) pose another challenge. If *-eci* were to occupy Voice_{EXP}, the hypothetical structure of derived change-of-state verbs would be (80). This is in contrast to (81), which is the derived change-of-state structure formulated under the present analysis:



Again, the Voice_{EXP} structure in (80) is operational to the extent that it captures the unaccusativity of the resulting verb. However, unlike (81), where the compositional semantics of ‘become’ is attained via the two event markers *v_{BE}* and *v_{GO}*, the structure in (80) fails to capture the ‘change’ semantics in the derived change-of-state predicates. The empirical setbacks thus lead to the rejection of the alternative hypothesis in (78).³⁵

³⁵A reviewer wonders whether *-eci* could be viewed as an unspecified Voice (Kastner 2020, Tyler 2020). The arguments invalidating the idea that *-eci* cannot be Voice_{EXP} carry over to reject this alternative, as they show that *-eci* must realize *v* under any theory of Voice.

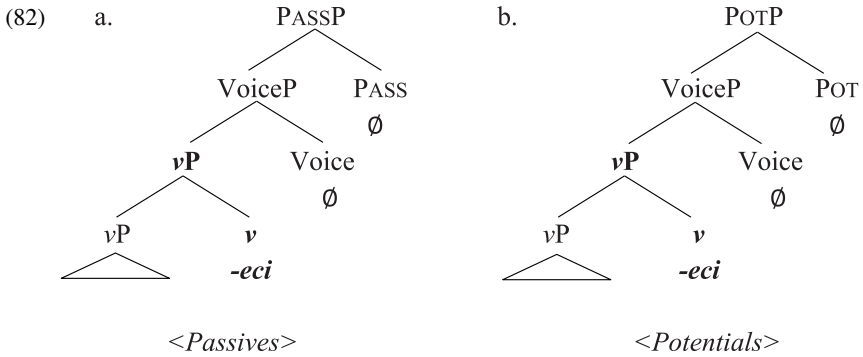
To summarize, *-eci* cannot be the realization of Voice in any of these alternatives presented. This reinforces the conclusion emphasized in this study — namely, that *-eci* is an instantiation of the verbalizing head v_{GO} (Cuervo 2003, 2014, 2015). This, however, is not to say that the patterns of *-eci* constructions refute the concept of specifier-less Voice itself. Under the present proposal that the passives and potential structures contain an additional vP projection headed by *-eci*, the specifier-less Voice account seems to explain the passive and potential data. An imperative corollary is that the Voice head above the v which *-eci* realizes is phonologically null. Below I outline how this plays out.

To begin with, null expletive Voice_{EXP}, being semantically and syntactically empty, could be additionally posited above the higher v head that *-eci* realizes in the proposed potential structure in (36). Under this approach, Voice_{EXP} could also be present in the lexical inchoative and derived change-of-state structures, as they are genuinely unaccusative. Unlike with anticausatives in Greek, however, postulating this in Korean would only serve a conceptual purpose because there is no morphological evidence.³⁶ At any rate, the two competing analyses — the potential structure advanced in (36), in which the Voice layer is missing entirely, and the alternative where a null Voice_{EXP} appears above *-eci* — make the same set of predictions with respect to the syntactic behaviors of potentials. Under this alternative, the differences between the passives and potentials would then be ascribed to the subtype of Voice involved, instead of the presence/absence of Voice_{PASS}. A disadvantage of positing Voice_{EXP} in potentials, however, is that this cannot make sense of the fact that in potentials, the external argument is semantically entailed, though not syntactically (unlike in unaccusatives). As a reviewer points out, with the potential constructions in (9)–(10), we know that there is somebody who draws the picture or goes to the restaurant in the events described by the verb. Such an understanding does not follow from Voice_{EXP}.

Next, competing theories of Voice allow two additional ways to implement Voice that need not host a syntactic external argument. First, while maintaining the idea that PASS existentially closes over the external argument (Bruening 2012, Legate 2014), as in (77), one could postulate a new null head, call it POT, in place of PASS in the potential structure, with the resulting representations in (82). This POT head, like PASS, would saturate Voice, and existentially quantify over the external argument. Importantly, however, POT should not allow a *by*-Agent to saturate Voice. In this way POT diverges from PASS: POT requires that Voice have an open external argument.³⁷ Under this hypothesis then, the distinct syntactic heads — PASS and POT — would be the source of the contrasting behaviors of potentials and passives.

³⁶As a way to seek an empirical motivation, one could reconsider the question of whether unaccusative v counts as a phase (Legate 2003) on the level of Voice.

³⁷For Bruening (2012), MV (Middle Voice) serves this role in English middles. It is necessary to posit a separate head, POT, here because unlike MV, POT is not expected to generically quantify over events (Condoravdi 1989). Korean potentials are episodic, unlike English middles. See fn. 4.



Crucially, in order for this hypothesis to work with *-eci*, one cannot retain the stance that passives and actives contain the same Voice (Bruening 2012). This is because of the restriction that *-eci* never appears with active Voice (section 6.1). The analysis would thus need to conceive two distinct subcategories of Voice — one that projects a syntactic external argument (i.e., Voice_{ACT}) and the other, say Voice_{NON-ACT}, with an open external role saturated by a higher head PASS/POT. Without positing Voice_{NON-ACT}, nothing prevents an ill-formed structure where Voice in (82) takes the *vP* headed by *-eci* and, at the same time, merges with an overt external argument in its specifier, *prior to merging with PASS/POT*. As a selecting head, the putative PASS/POT in (82) demands that Voice not introduce a syntactic external argument to continue the derivation as a passive/potential. However, the newly added *vP* layer for *-eci* in (82) requires that the selectional relationship between Voice and *v* below it be constrained as well.

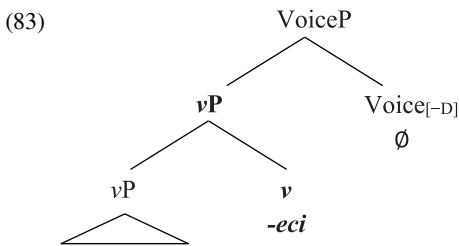
From a theoretical point of view, the core distinction between the diagrams in (82) and those proposed in (35)–(36) originates from one of the questions syntacticians have had as they try to reassign the traditional functions of *v* (Chomsky 1995, Kratzer 1996) to *v* and Voice. In particular, between *v* and Voice, which head is responsible for “semantically” encoding the external argument? In the present study, the semantic expression of the external argument is handled by *v* with the flavours DO/CAUS. In (82), it is Voice. Voice introduces the semantic and/or syntactic external argument in Bruening’s system. As a consequence, a more expanded VP structure is needed in (82).

Another way of employing a null Voice with no external argument is to make use of contextual allosemy (Wood 2015, Myler 2016). Contextual allosemy espouses the idea that Voice may have multiple allosemes, in which case they compete for insertion at LF, just as multiple allomorphs of a single morpheme do at PF. Information such as whether the external argument is semantically existent or not and, if so, which kind of external argument (e.g., Agent, Holder) needs to be interpreted, is determined by the contexts where Voice appears. In this model, the semantics associated with the external argument is delegated to LF.

The trivalent theory of Voice advanced by Kastner (2020) and Tyler (2020) actively incorporates contextual allosemy. In addressing the intriguing Hebrew templates, Kastner (2020) argues for a three-way classification of Voice — Voice_[+D], which

always projects a syntactic external argument; Voice_[-D], which always lacks one; and unspecified Voice_[], which may or may not host a syntactic external argument. Of these, Voice_[-D] is relevant, since all of the *-eci* constructions are non-active in Kastner's sense.³⁸ Again, the spell-out for this Voice_[-D] must be null, given that *-eci* is *v*.

These two ingredients — contextual allosemy and Voice_[-D] — combined with the current finding that *-eci* is a verb-selecting *v* in passive and potential constructions, yield a single syntactic structure in (83). Without assuming *v* flavours, derived change-of-state verbs can also be subsumed in this structure, since *-eci* in these verbs selects for a *v*P complement too (see (60) and (81)).



<Passives / Potentials / Derived change-of-state>

With the configuration in (83), the Voice alloseme chosen singles out the relevant interpretation for the external argument. The choice of the Voice alloseme would be determined contextually with reference to the root. With Voice_[-D] being the first phase, the roots should be able to influence Voice_[-D] for interpretational purposes (Tyler 2020) across the two *v*'s. The rules are roughly sketched out in (84), with the resulting construction marked in parentheses:

(84) Voice_[-D] ↔ Agent / $\sqrt{\text{KULI-}'\text{draw}'_{(\text{passive})}}$...
 \emptyset / $\sqrt{\text{KULI-}'\text{draw}'_{(\text{potential})}}$, $\sqrt{\text{TALI-}'\text{run}'_{(\text{potential})}}$, $\sqrt{\text{KIL-}'\text{long}'_{(\text{derived COS})}}$...

According to (84), transitive roots such as *kuli-* 'draw' are interpreted in association with an implicit Agent, yielding the passive reading. In contrast, other roots involve no Agent semantics. Depending on the particular root inserted, this either yields the potential or derived change-of-state constructions. Because *kuli-* 'draw' appear in both contexts in (84), the interpretation of the structure (83) when *kuli-* is inserted is correctly predicted to be ambiguous between passive and potential.

Notably, the set of rules in (84) does not acknowledge the "semantic" presence of the external argument in the potential construction. If, alternatively, the environment for potentials demanded a Voice alloseme with an implicit Agent, then the different behaviors of passives and potentials would be left unexplained. In addition, since the *-eci* in lexical inchoatives like *tel.eci-* 'fall' is root-selecting, the structure in (83)

³⁸Voice_[-D] is similar to Voice_{NON-ACT} suggested for (82) in that both lack a specifier. The two differ in that Voice_[-D] does not entail a semantic external argument, whereas Voice_{NON-ACT} does. A Voice_[-D] alloseme for unaccusative verbs necessarily lacks an Agent. In contrast, under the system in (82), unaccusative *v*P's do not project into VoiceP at all.

does not apply to this subclass of *-eci* verbs. Consequently, lexical inchoatives are irrelevant in the competition depicted in (84).³⁹ This shows that while Voice allosemy is compatible with the Korean *-eci* data, it is not the underpinning mechanism that ties the four *-eci* constructions together.

So far I have outlined how three alternative theories of Voice — Voice_{EXP}, unsaturated Voice selected by PASS/POT, and Voice allosemy — can be extended to accommodate Korean *-eci* passives and potentials (and at times the other *-eci* constructions), albeit with some remaining issues. Overall, the current analysis not only successfully explains the four *-eci* constructions but also has the unparalleled advantage that the syncretic nature of the *-eci* suffix follows naturally. Synthesizing the syntactic and morphological patterns of the constructions containing *-eci*, I conclude that *-eci* cannot be the exponent of *v* in the traditional split VP structure (section 7.1). Additionally, while the current set of Korean data can be handled by alternative accounts of Voice, they do not *require* these (section 7.2). Most of all, in order to adequately capture the morpho-syntax of the *-eci* constructions, any competing theory of Voice must be extended to reflect a highlight of the present study — that the *-eci* suffix instantiates *v*, not Voice.

8. IMPLICATIONS

Some implications follow from adopting the conclusions of this study. In particular, they shed light on the structural composition of unaccusative predicates and the typology of passives.

8.1. Unaccusative syntax

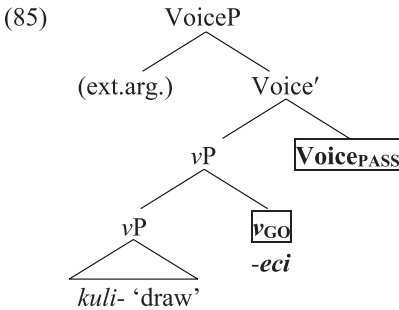
First, these findings constitute additional support for the split *v*P structure. Despite the shared substructure completed by the *v*_{GO} head, the differences between passives and potentials arise due to the presence of an additional VoiceP level in the former and its absence in the latter. The distinct behaviours of the two constructions thus converge to corroborate a theory in which the verbalizing head and the Voice head are separated.

Additionally, the present proposal provides partial evidence that inchoativizing heads may behave in parallel with causativizing heads when it comes to complement selection. Specifically, within the last two decades syntacticians have shown that causativizing (i.e., *v*_{CAUS}) heads have three complement choices — \sqrt{P} , another *v*P, and external-argument-introducing VoiceP (Pylkkänen 2002, 2008; Tubino-Blanco 2011; Harley 2013; Key 2013; H. K. Jung 2014b, among others). I have shown here that *v*_{GO} can directly select for a \sqrt{P} (in the case of lexical inchoatives) or take a *v*P complement (in passive, potential, and derived change-of-state constructions). This shows that the inchoativizing head mirrors its causativizing counterpart in its root- and *v*P-selecting properties. It remains to be seen whether *v*_{GO} can also take a VoiceP complement, as with *v*_{CAUS}, to complete the selectional pattern in both transitive and unaccusative configurations.

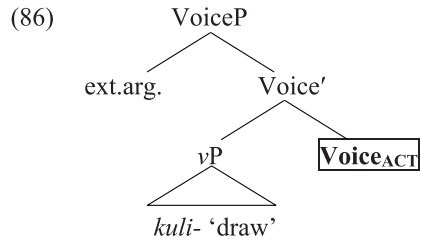
³⁹Under this model, lexical inchoatives would share the syntactic structure of eventive (e.g., \sqrt{NOK} - ‘melt_{v_i}’) and stative (e.g., \sqrt{KIL} - ‘be long’) unaccusatives with no *-eci* attached.

8.2. Passives

This proposal suggests a new understanding regarding the properties of passives. Korean passives formed with *-eci* conform to the universal tendencies of passives compiled in Kiparsky (2013). Particularly noteworthy is Kiparsky’s generalization, originally owing to Haspelmath (1990), that passives are always morphologically marked. In other words, no language marks actives and passives with the same morpheme. Let us consider how this statement connects to the passive structure in (85) and its active counterpart in (86):



<Passives in Korean >



<Actives in Korean >

In (85) and (86), the active and passive configurations share the substructure vP. Passive formation is completed by stacking two syntactic heads — v_{GO} and $Voice_{PASS}$ — on the relevant vP (i.e., $vP_{DO/CAUS}$), as in (85), whereas in the active structure in (86), a $Voice_{ACT}$ layer is added directly on top of vP. Since $Voice_{PASS}$ in (85) is morphologically null, the morphological marking of passives in the sense of Kiparsky (2013) is carried out by v_{GO} .

Furthermore, with the two functional heads, v_{GO} and $Voice_{PASS}$, participating in the derivation of Korean passives, passives are not formed by the simple switching of $Voice_{ACT}$ to $Voice_{PASS}$ and subsequent movement of the Theme argument. I have shown that passivization is not semantically vacuous, at least in Korean. Given the role of v_{GO} , passive formation involves marking the eventuality of ‘change’, in addition to the Voice alternation.

9. CONCLUSIONS

The syncretic morphology appearing in the four unaccusative configurations in Korean and their morpho-syntactic and semantic properties can be successfully captured with two independently motivated theoretical tools: (i) the intricate verbal structure consisting of root, verbalizing v , and Voice (Pylkkänen 2002, 2008; Cuervo 2003, 2014, 2015; Alexiadou et al. 2006; Harley 2013, 2017, among others), and (ii) the assumption that morphological identity reflects syntactic identity (Alexiadou et al. 2015).

Specifically, I have argued that Korean passive and potential constructions are systematically related by the fact that they share the substructure headed by *-eci*. The suffix *-eci* in the two constructions realizes the same syntactic head — v_{GO}

marking the eventuality of ‘change’ (Cuervo 2003, 2014, 2015). The unique properties of the potential construction distinct from the passive — the ability to co-occur with either transitive or unergative predicates; the inability to accept the *by*-Agent and agent-oriented adverb modification as well as to control an embedded infinitival clause; and finally, the source of the potential meaning and its connection to *easily*-type adverbs and the negative particle — are all corollaries of a single factor. The potential construction lacks the functional layer holding the syntactic external argument, whereas its passive counterpart contains it.

My argument shows that the two additional constructions where *-eci* appears — derived change-of-state predicates and lexical inchoatives — involve the layer headed by v_{GO} , just like the passive and potential. The former two constructions differ from each other and from the passive and potential structures in the type of the complement selected by v_{GO} . The current system also offers a natural explanation for various related phenomena — the morphological alternation between lexical inchoatives and causatives, the appearance of *-eci* in derived nominals, the interaction of *-eci* with the perfect marker *-eiss*, and the sequence of overt morphemes marking BE and GO in a subset of derived change-of-state predicates.

The results of this study provide a basis for the idea that unaccusative configuration mirrors its causative counterpart in the context of selectional choices. The comparative analysis of the four constructions derived by *-eci* allows for a refined understanding of passive and potential structures and the syntactic consequences of morphemic identity.

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