

Korean ‘-e ci’ Constructions: Anti-Causatives or Passives?

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Jina Song. 2016. Korean ‘-e ci’ Constructions: Anti-Causatives or Passives? *Language and Information* 20.1, 51-71. The status of the Korean morphological marker ‘-e ci’ has been controversial whether it is a passive marker, an anticausative marker, or a passive/anticausative marker. However, the previous approaches that tried to classify ‘-e ci’ constructions based on the syntactic verb classes (i.e. intransitive or transitive) were short of explaining the properties of the constructions. In this study, the ‘-e ci’ constructions were distinguished based on agentivity, following Levin & Rappaport Hovav (1995) and Alexiadou et al. (2006). Moreover, how the verbal root meaning is associated with the passive/anticausative construction was investigated by means of Distributed Morphology (DM) (Embick 2010; Marantz 1997). I argued that the morphological marker ‘-e ci’ is the instantiation of the absence of external arguments. With respect to the behavior of the Korean ‘-e ci’ constructions with the semantics of each verbal root class, I found out that the ‘-e ci’ constructions can form passives with the verbal roots that require the external arguments; whereas, the anticausatives cannot be formed with the roots that necessarily require the agentive arguments. However, contrary to the previous arguments that ‘-e ci’ passives can be only formed with transitive verbs, it is discovered that non-agentive transitive roots do form anticausatives. Moreover, I argued that there are two types of the anticausatives – zero and ‘-e ci’ anticausatives. Since the valency reduction is marked by the non-active voice morphology, the zero anticausatives appear only with the roots that do not require external arguments. The different ‘-e ci’ constructions (passives, ‘-e ci’, and zero anticausatives) are represented by the distinct syntactic structures.

* I am grateful to anonymous reviewers for their invaluable comments on this paper. All errors are my own.

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I proposed that the morphological similarity between the passives and the ‘-e ci’ anticausatives is due to the presence of VoiceP, which introduces the external arguments. Moreover, the lack of the voice morphology in the zero anticausatives is explained by the absence of the VoiceP. (Seoul National University)

Key words: anti-causatives, passives, ‘-e ci’ constructions, voice morphology, verbal root classes

1. Introduction

The status of the Korean morphological marker ‘-e ci’ has been controversial; whether it is a passive marker (Sung 1976; Choi 2005), an anticausative¹ marker (Woo 1992, 1997; Song 2005), or a passive/anticausative marker (Park, 1998; Kim 2001) has been a topic of considerable debate.

The previous studies that regard ‘-e ci’ as a passive marker assume that the ‘-e ci’ passive construction is derived from its corresponding active counterpart by demoting the subjects of the active counterpart to oblique case elements.

- (1) swutokwan-i hanpha-ey th-eci-ess-ta.
 water pipe-NOM cold wave-from burst-e ci-PAST-DEC
 ‘The water pipe bursted from cold wave.’ (Lee 1978:539)

However, since ‘-e ci’ can be combined with intransitive verbal roots as well as transitive verbal roots, when it is attached to the intransitive verbal root, as in (1), the corresponding active sentence cannot be posited.

On the other hand, the approach that regards ‘-e ci’ as an anticausative marker assumes that the sentences with ‘-e ci’ do not have a passive meaning but just have a meaning of change of state². In particular, Song (2005) argues that ‘-e ci’ denotes a spontaneous process and it does not involve an implicit agent argument.

- (2) tocaki-ka yeyswulka-eyuyhay / *cecello pic-eci-ess-ta.
 pottery-NOM artist-by / *by itself make-e ci-PAST-DEC
 ‘The pottery was made by an artist / *by itself.’

¹ Anticausatives refer to an intransitive use of change of state verbs (Levin 1993); or Change of state without an external argument (Alexiadou 2006)

² Woo (1992, 1997) proposed that ‘-e ci’ has an inceptive meaning (the commence of a state / an activity).

However, though example (2) denotes the change of state, it is not compatible with the by-itself phrase, which expresses the spontaneous process. In addition, the presence of the implicit agent argument 'by an artist' provides strong evidence that the sentence marked with '-e ci' can form a passive sentence.

This study follows the approach that '-e ci' is a passive/anticausative marker, in a broad sense. The previous studies on the passive/anticausative approach have argued that when '-e ci' is attached to the intransitive verbal roots, it functions as an anticausative marker, but when the morpheme '-e ci' is attached to the transitive verbal roots, it functions as a passive marker (Park 1998; Kim 2001)³.

- (3) namwutaymwun-i cecello pwuswu-eci-ess-ta.
 Wooden door-NOM by itself destroy-e ci-PAST-DEC
 'The wooden door destroyed by itself.'

However, although the morpheme '-e ci' is attached to the transitive verbal root in (3), it cannot be regarded as a passive marker, because example (3) denotes the event that occurred without an implicit agent argument.

Thus, in this study, the passive/anticausative distinction of the '-e ci' constructions will not be based on the syntactic verb classes; rather it will be distinguished based on agentivity, following Levin & Rappaport Hovav (1995) and Alexiadou et al. (2006). In addition, it has been argued that the encyclopedic semantic information associated with each verbal root classes has an influence on forming the passives or the anticausatives (Alexiadou et al. 2006). So, in this study, how the verbal root meaning is associated with the passive/anticausative construction will be investigated and analyzed by means of Distributed Morphology (DM) (Embick 2010; Marantz 1997), which assumes that roots obtain the categorical status when combined with category defining functional heads. Under this framework, the difference between the passives and the anticausatives can be analyzed from the different structures associated with the roots.

2. Morphology associated with valency reduction

The Korean morphological marker '-e ci' appears not only in the passive but also in the anticausative constructions.

³ The morphological marker '-e ci' can be attached to adjectival roots, too. But, this paper limits its scope to '-e ci' with verbal roots.

- (4) a. *tocaki-ka yeyswulka-eyuyhay pic-eci-ess-ta. (Passive)*
 pottery-NOM artist-by make-e ci-PAST-DEC
 'The pottery was made by an artist'
 b. *swutokwan-i hanpha-ey th-eci-ess-ta. (Anticausative)*
 water pipe-NOM cold wave-from burst-e ci-PAST-DEC
 'The water pipe bursted from cold wave.'

As in (4a), '-e ci' can be attached to the transitive verbal root, forming the passive; it can also be combined with the intransitive verbal root, forming the anticausative, as in (4b).

Similarly, in a number of languages, the morphological marking of the anticausatives are shared with the passives (Marantz 1984; Chierchia 1989; Alexiadou 2004). For example, Greek has two sets of inflectional morphemes – an active and a non-active form⁴ (Alexiadou 2004:116).

- (5) Non-active morphology shared by anticausative and passive predicates in Greek⁵
- a. *O Janis ekapse ti supa. (Causative)*
 the John.NOM burnt.Act the soup.ACC
 'John burnt the soup.'
- b. *I supa kegete. (Anticausative)*
 the soup.NOM burns.Nact
 'The soup is burning'
- c. *To vivlio diavastike ktes. (Passive)*
 the book. NOM read.Nact yesterday
 'The book was read yesterday.'

As in (5), active morphology occurs on the causative constructions, in which an external argument is present, while non-active morphology appears on the anticausative and the passive constructions, where the external arguments are absent.

The non-active morphology has been regarded as a morphological instantiation of the absence of an external argument – an instance of a valency reduction (Marantz 1984; Embick 1998). Since morphemes are underspecified in regard to syntactic/semantic information in DM, the non-active voice morphology, which appears only in the specific syntactic contexts (passives and anticausatives), reflects the syntactic environment that these contexts have in common – the specifier of VoiceP is empty. Moreover, the non-active voice morphology belongs to a morphological level and corresponds to a syntactically inactive element. Therefore, the

⁴ Active morphology is abbreviated as *Act* and Non-active morphology is abbreviated as *Nact*.

⁵ Examples from Alexiadou (2006:2-3)

voice morphology is assigned post-syntactically to a verb when the particular syntactic environment is met (Embick 1998).

I suggest that the Korean morphological marker 'e ci' should be regarded as a non-active voice morphology in Korean, because they can only appear in the constructions that lack external arguments.

- (6) a. yeyswulka-ka tocaki-lul pic-(*eci)-ess-ta. (Causative)
 artist-NOM pottery-ACC make-(*Nact)-PAST-DEC
 'The artist made pottery'
- b. tocaki-ka yeyswulka-eyuyhay pic-eci-ess-ta. (Passive)
 pottery-NOM artist-by make-Nact-PAST-DEC
 'The pottery was made by an artist'
- c. swutokwan-i hanpha-ey th-eci-ess-ta. (Anticausative)
 water pipe-NOM cold wave-from burst-Nact-PAST-DEC
 'The water pipe busted from cold wave.'

While the causative sentence is incompatible with the morpheme 'e ci' as in (6a), the passive sentence (6b) and the anticausative sentence (6c) are compatible with the morpheme, 'e ci'. That is, the morpheme, 'e ci', can appear only in sentences that lack external arguments, just like the Greek non-active morphology.

Moreover, 'e ci' is a syntactically inactive element because it does not undergo a syntactic movement.

- (7) ATB movement
 *[pyek-i pwuswu ____] ko [tamcang-i nac ____] a ci-ess-ta.
 Wall-NOM break and fence-NOM lower Nact-PAST-DC.
 '*The wall broken and the fence lowered.'

- (8) Fragment answer
 a. pyek-i pwuswu-e ci-ess- ni?
 Wall-NOM break-Nact-PAST-ITR.
 'Did the wall break down?'
- b. ung, *(e) ci-ess-e.
 Yes, Nact-PAST-DC.
 '*Yes, (it) did.'

In (7), 'e ci', detached from its verbal root, cannot undergo Across-the-Board movement; as in (8), 'e ci' cannot be moved to the left-periphery and become a fragment answer.

Thus, the Korean morphemes ‘-e ci’ can be regarded as non-active voice morphology, which can be marked only in the syntactic contexts that have no external argument.

There is another type of the non-active voice morphology in Korean: the morphemes ‘-i/-hi/-li/-ki’ (Kim 2009). The anticausatives/passives in Korean can be marked by the morphemes just as they are marked by the voice morphology ‘-e ci’. However, the meaning of the voice morphology ‘-i/-hi/-li/-ki’ is different from that of ‘-e ci’ (Lee 1978; Kim 2001).

- (9) a. haswukwu-ka mak-hi-ess-ta.
 drainage-NOM block-Nact-PAST-DEC
 ‘The drainage blocked.’
 b. haswukwu-ka mak-e ci-ess-ta.
 drainage-NOM block-Nact-PAST-DEC
 ‘The drainage blocked.’

When the transitive verbal root is combined with the morpheme ‘-hi’, it represents a spontaneous process, in which an implicit external argument is not included. On the other hand, the voice morphology ‘-e ci’ represents an unspontaneous process and necessarily requires the implicit external argument (Lee 1978; Kim 2001). That is, (9a) describes an event where the drainage blocked by itself and not by outside forces, whereas (9b) describes that the drainage was blocked by some external forces. Therefore, I assume that the voice morphology ‘-e ci’ presupposes the causing event by the implicit external cause argument.

3. Distinction between passives and anticausatives

Anticausatives and passives share the property that they have no external argument. They even share the same non-active voice morphology in languages like Greek and Korean. For these reasons, it has been a controversial issue to distinguish the non-active morphology marked sentences into two types: the passive and the anticausative construction. However, it has been widely argued that the passives and the anticausatives are different with regard to agentivity licensing (Levin and Rappaport Hovav 1995; Reinhart 2000; Alexiadou et al. 2006).

First, agent PPs and agent-oriented adverbs are licensed only in the passives, and not in the anticausatives, whereas by-itself phrases are only licensed in the anticausatives, and not in the passives (Alexiadou et al. 2006).

- (12) a. Mary was killed.
 b. *Mary killed.
 c. I Maria dolofonithike apo to Jani/*apo to sismo.
 The Mary-NOM murdered-Nact from the John/*from the earthquake
 ‘Mary was murdered by John / *from the earthquake.’
 (Alexiadou et al. 2007:4)

As in (12), the verb ‘kill / murder’ cannot form anticausative sentences both in Greek or English. Since verbs like ‘kill / murder’ denote a meaning that (implicit) externally caused arguments should be agent-oriented components, they cannot form anticausatives (Levin and Rappaport Hovav 1995; Alexiadou et al. 2006). That is, the semantics of verbal roots related to the agentivity has influence on which construction can be formed.

4. Verbal root classes

As briefly discussed in the previous section, the encyclopedic semantics associated with verbal roots has influence on the passive/anticausative formation. To investigate how it works, Alexiadou et al. (2006) classified verbs into four classes based on verbal root meanings⁷: agentive roots, internally caused roots, externally caused roots and cause unspecified roots. First, the agentive roots are conceptualized as the eventuality that the presence of an agent brings about the change of state. Second, the internally caused roots imply that some inherent property of the argument causes the change of state. Third, the externally caused roots imply that some external causes (not restricted to agents)⁸ bring about the change of state. Finally, the cause

⁷ Levin and Rappaport Hovav (1995) argued that the restriction on the meaning of the external argument of externally caused verbs (in their transitive use) correlates with the anticausative formation. The externally caused verbs that cannot form anticausatives restrict their external argument to agents and instruments; but the externally caused verbs that can form anticausatives allow causers (i.e. a natural force) as their external argument. However, Alexiadou et al. (2006) has pointed out that the generalization of Levin and Rappaport Hovav (1995) could overgenerate ungrammatical anticausative sentences, as in (i).

- (i) a. The king / the hurricane destroyed the city.
 b. *The city destroyed.

Although the verb ‘destroy’ allows the causer ‘the hurricane’ as its external argument, the anticausative sentence cannot be formed. For this reason, Alexiadou et al. (2006) and Alexiadou (2010) proposed another verbal root class – agentive root; and argued that the agentive root is the only verbal class that is not expected to form anticausative across the languages.

unspecified roots are conceptualized as the event that has no specification of the source of causes (internal or external causes).

They argued that these four classes of roots correlate with the anticausative/passive formations and with the behavior of the non-active voice morphology. The presence of the non-active voice morphology in the anticausatives varies in regard to the root classes. Since the voice morphology is an instance of valency reduction, the passives always appear with the non-active voice morphology. However, the encyclopedic verbal root meanings of the anticausative can be of either intransitive or transitive type. In the former cases, the anticausative verbs cannot be combined with the non-active voice morphology because there is no valency reduction. However, if the verbal roots of the anticausatives are syntactically categorized as the transitive class, then there should be valency reduction (Alexiadou et al. 2006; 2010). In this section, the correlation between the verbal root classes and the anticausative/passive formations of Greek is examined first. Then, in the next section, the patterns observed in Greek will be compared with those of Korean anticausative/passive constructions, because the two languages have similar properties (i.e. non-active voice morphology).

(13) Agentive Roots

- a. I Maria dolofonithike apo to Jani. (Passive)
 The Mary-NOM murdered-Nact from the John
 'Mary was murdered by John.'
- b. *I Maria dolofonithike apo to sismo. (Anticausative)
 The Mary-NOM murdered-Nact from the earthquake
 '*Mary murdered from the earthquake.' (Alexiadou 2010:8)

First, the agentive roots cannot form anticausatives, but only form passives, because they demand the presence of the implicit agent argument. As in (13), the non-active voice morphology in Greek is compatible with the passives but not with the anticausatives, only admitting the Agent PP.

(14) Externally caused roots

- a. to hirografo katastrafike apo to Jani. (Passive)
 the manuscript-NOM destroyed-Nact from the John

⁸ The external cause of the externally caused roots, which has immediate control over bringing about the eventuality, can be an agent, a causer (i.e. a natural force), or an instrument (Alexiadou et al. 2015:53). However, the event described by the agentive roots is necessarily brought about by an agent-oriented instrument or an agent, but not with a causer (i.e. a natural force).

'The manuscript was destroyed by John.'

- b. to hirografo katastrafike me ti dinati fotia / apo mono tu.
(Anticausative)
the manuscript-NOM destroyed-Nact with the strong fire / by itself
'The manuscript destroyed with the strong fire /by itself.'(Alexiadou 2010:7, 17)

Second, the externally caused root 'destroy' with non-active morphology forms not only the passive but also the anticausative⁹, licensing both the agentive PP in (14a) and the implicit causer as in (14b). Since the semantics of the externally caused roots requires the external causes, the non-active voice morphology is compatible with the anticausative to mark the valency reduction.

(15) Cause unspecified

- a. To pukamiso stegnose me ton aera / apo mono tu / *apo to Jani.
(Anticausative)
the shirt dried-Act with the wind/ by itself / *by John
'The shirt dried with the wind/by itself / *by John.'
- b. To pukamiso stegnothike apo to Jani / *me ton aera. (Passive)
the shirt dried-Nact by John / *with the wind
'The shirt was dried by John / *with the wind.' (Alexiadou et al., 2007b:5)

Third, unlike the externally caused roots, the cause unspecified root 'dry' forms the anticausative, taking the active voice morphology, as in (15a), because the semantics of the cause unspecified root does not always require the external causes. That is, this root can show up without an external argument. In this case, there is no valency reduction; the non-active voice morphology does not appear. With the non-active voice form, the Greek cause unspecified root 'dry' forms only the passives, because the implicit external argument is necessarily required so as to form the passives.

(16) Internally caused

- a. I spori muxliasan. (Anticausative)
the seeds molded-Act.3pl
'The seeds molded.'

⁹ Alexiadou (2010) argued that there are two types of languages with respect to the anticausativization pattern – English type and Greek type. Two types are different in how externally caused roots (i.e. destroy) are treated. The externally caused roots do not form anticausatives in the English type languages, but do form in Greek type languages with the help of non-active morphology.

- b. *I spori muxliastikan. (Anticausative)
 the seeds molded-Nact.3pl
 'The seeds molded.' (Alexiadou 2007:7)

Finally, the internally caused roots form only the anticausatives, because the internally caused event cannot be brought about by the external arguments and they do not allow a causative use. As in (16) the internally caused root takes the active voice morphology in forming the anticausatives.

In sum, there are two types of morphologies in the anticausatives – active vs. non-active – and the verbal root meanings correlate with this morphological behavior. Although all (but agentive) roots can form anticausatives, only the externally-caused roots surface with non-active morphology in anticausatives.

5. Types of Korean '-e ci' structures

Although it has been determined that the morphological marker '-e ci' is a non-active voice morphology in Korean, it is still not clear what types of the '-e ci' constructions are passives or what types of the '-e ci' constructions are anticausatives. So, in this section, they are distinguished with anticausatives and passives based on the agentivity licensing, following Alexiadou et al. (2006).

Moreover, by categorizing the '-e ci' constructions based on the four classes of root semantics (agentive roots, internally caused roots, externally caused roots and cause unspecified roots), the correlations between verbal root meanings and the '-e ci' anticausative/passive formation patterns can be found. In addition, it will be examined if in Korean there are two types of morphologies in the anticausatives with respect to the verbal root meanings, just as with Greek anticausatives.

(17) Agentive roots

- a. tocaki-ka yeyswulka-eyuyhay / mwulley-lo pic-eci-ess-ta.
 pottery-NOM artist-by/pottery wheel-with make-Nact-PAST-DEC
 'The pottery was made by an artist /with a pottery wheel.'
- b. tocaki-ka *kangphwung-ey / *cecello pic-eci-ess-ta.
 pottery-NOM *strong wind-from / *by itself make-Nact-PAST-DEC
 'The pottery made *from strong wind / *by itself.'

First, when the non-active morpheme '-e ci' is combined with the agentive root 'make'¹⁰, it necessarily forms a passive, not an anticausative, because the agentive

¹⁰ Since creation verbs require a very strong Agent (i.e. creator) by their nature (Fellbaum, 1989), the creation verb 'make' belongs to the agentive roots.

roots select an agent as its subject. As in (17a), the ‘-e ci’ that is attached to the agentive root co-occurs with the agent phrase by-PP and agent-oriented instrument, but does not allow the causer PP or by-itself phrase¹¹, (18b), respectively.

(18) Externally-caused roots

- a. namwutaymwun-i pwullyangpay-eyuyhay / mangchi-wa kokkwayngi-lo
 Wooden-door-NOM thug-by / hammer-and pickax-with
 pwuswu-eci-ess-ta.
 destroy-Nact-PAST-DEC
 ‘The wooden door was destroyed by a thug /with hammer and a pickax.’
- b. namwutaymwun-i thayphwung-ey / cecello pwuswu-eci-ess-ta.
 Wooden door-NOM typhoon-from / by itself destroy-Nact-PAST-DEC
 ‘The wooden door destroyed from typhoon / by itself.’

Second, when the non-active morpheme ‘-e ci’ is attached to the externally caused root ‘destroy’, it can be either a passive or an anticausative. As in (18), the sentences are compatible with the agent phrase by-PP and the agent-oriented instrument phrase as well as the causer PP and the by-itself phrase. This is exactly the same pattern as in Greek, where both the passives and anticausatives can be marked with the same non-active morphology when combined with externally caused roots, because there are effectively valency reductions in two constructions. Also, the fact that the externally caused roots can form anticausatives with ‘-e ci’ contradicts the previous approach on ‘-e ci’ constructions, where it is argued that only intransitive verbs can be anticausatives. That is, the externally caused roots always require the external cause

¹¹ An anonymous reviewer points out that Korean verb ‘mantulta’ (make) is compatible with a by-itself phrase, although the verb seems to belong to the agentive root class. Since the verb ‘mantulta’ is a creation verb, it requires an agent argument. However, as seen in the example (i), the verb ‘mantulta’ can be also used with a causer (i.e. a natural force), which seems to be an idiosyncratic property of the verb ‘mantulta’ compared to the other canonical creation verbs.

- (i) Palam-i phato-lul mantul-tusi keli-ey-nun congi-uy mwulkyeltul-i
 wind-NOM tide-ACC make-AS street-LOC-TOP paper-POSS waves-NOM
 sayngkyena-ss-ta.
 emerge-PAST-DEC
 ‘As a wind makes the tide, the waves of paper emerged in the street.’ (Nam, Sooah (2013).
 inopeyisyen8)

As in (i), considering the verb ‘mantulta’ does not restrict its external argument to agents, the verb may belong to the externally-caused class; so, the by-itself phrase can be used with the externally-caused root ‘mantulta’.

arguments; it can be syntactically categorized as a transitive verb. But, the fact that the externally caused roots can form the anticausatives means that the syntactically categorized verb classes alone are not enough to explain the anticausative formation patterns.

(19) Cause unspecified roots

- a. kamca-han-al-i *chengnyen-eyuyhay / *cipkey-lo wumcik-ess-ta.
 Potato-one-CL-NOM young man-by / tongs-with move-PAST-DEC
 'one potato moved by a young man /with tongs.'
- b. kamca-han-al-i palam-ey / cecello wumcik-ess-ta.
 Potato-one-CL-NOM wind-from / by itself move-PAST-DEC
 'one potato moved by from wind / by itself.'
- c. kamca-han-al-i chengnyen-eyuyhay / cipkey-lo wumcik-eci-ess-ta.
 Potato-one-CL-NOM young man-by / tongs-with move-Nact-PAST-DEC
 'one potato was moved by a young man /with tongs.'
- d. kamca-han-al-i ?palam -ey / ?cecello wumcik-eci-ess-ta.
 Potato-one-CL-NOM wind-from / by itself move-Nact-PAST-DEC
 'one potato was moved by from wind / by itself.'

Third, the cause unspecified root 'move'¹² can form an anticausative without the non-active voice morphology '-e ci', and if the voice morphology is attached to the

¹² The verb 'pwuswuta' (destroy) belongs to the externally-caused class, because the change of state can come about only with an external cause. On the other hand, the verb 'wumcikita' (move) belongs to the cause-unspecified class because the event can be brought about with or without an external cause. That is, the change of state can also come about independently.

- (i) a. swuley-ka wumcik-ess-ta.
 cart-NOM move-PAST-DEC
 'The cart moved.'
- b. sonyen-i swuley-lul wumcik-ess-ta.
 boy-NOM cart-ACC move-PAST-DEC
 'A boy moved the cart.'
- (ii) a. *namwutaymwun-i pwuswu-ess-ta.
 Wooden door-NOM destroy-PAST-DEC
 '*The wooden door destroyed.'
- b. sonyen-i namwutaymwun-ul pwuswu-ess-ta.
 boy-NOM wooden door-ACC destroy-PAST-DEC
 'A boy destroyed the wooden door.'

Thus, the cause-unspecified root 'wumcikita' (move) has transitive as well as intransitive uses, as in (i), while the externally-caused root 'pwuswuta' (destroy) does not allow the intransitive use, as shown in (ii).

cause unspecified root, it can form both the passive and the anticausative. As seen in (19a) the agent phrase by-PP and the agent-oriented instrument phrase are not licensed with the cause unspecified root that is not combined with ‘-e ci’, but can be licensed with the cause unspecified root combined with ‘-e ci’, as in (19c). However, the Causer PP and the by -itself phrase are compatible with or without the voice morphology ‘-e ci’. Since the cause unspecified root may or may not show up with the external argument, when the root requires the external argument, there should be valency reduction and the root can co-occur with the voice morphology ‘-e ci’. On the other hand, when the root does not require the external argument, there cannot be valency reduction, so cannot be marked with ‘-e ci’. Since the passive formation always requires the (implicit) external argument, the cause unspecified root without ‘-e ci’ cannot become a passive sentence.

(20) Internally caused roots: Type I

- a. peckkoch-i *sonyen-eyuyhay / *pwunmwuki-lo phi-(**eci*)-ess-ta.
 cherry-blossoms-NOM boy-by/water-sprayer-With bloom-Nact-PAST-DEC
 ‘Cherry-blossoms were bloomed *by a boy /*with a water sprayer.’
- b. peckkoch-I pomhayssal-ey / cecello phi-(**eci*)-ess-ta.
 cherry-blossoms-NOM spring-sunshine-from / by itself bloom-Nact-PAST-DEC
 ‘Cherry-blossoms bloomed from spring sunshine / by itself.’

Finally, the internally caused root ‘bloom’ cannot be combined with the voice morphology ‘-e ci’. Since the semantics of the internally caused root does not require the external cause, it is not matched with the meanings of ‘-e ci’. As in (21b), only the causer PP or the by-itself phrase co-occur with the internally caused root, forming an anticausative. This pattern is also the same as the Greek counterpart.

(21) Internally caused roots: Type II

- a. ssak-i th-(**eci*)-ess-ta.
 bud-NOM burst-Nact-PAST-DEC
 ‘The bud bursted (sprouted).’
- b. swutokwan-i hanpha-ey / *sonyen-eyuyhay th-eci-ess-ta.
 water-pipe-NOM cold wave-from / boy-by burst-Nact-PAST-DEC
 ‘The water pipe busted from cold wave / *by a boy.’ (Lee 1978:539)

However, there are some exceptional cases in Korean that some of the internally caused roots can be combined with the voice morphology ‘-e ci’. The Korean intransitive verb ‘burst’ (*thuta*) denotes the internally caused meaning (Lee 1978). So, as in (21a) when it appears with the subject ‘bud’, ‘-e ci’ cannot be attached to the root, just like the canonical internally caused roots. However, when the internally caused

root 'burst' has the subject 'water pipe', '-e ci' is combined with the root and the causer PP can be licensed, as in (21b). Lee (1978) and Kim (2001) have argued that the non-active voice morphology '-e ci' semantically requires the external cause, that means when verbal roots are combined with it, the causing event by the external cause argument is necessarily involved. Thus, although in most of the cases the internally caused roots are not compatible with the voice morphology '-e ci', if the combination of a Theme argument and the internally caused root is congruous with the semantics of '-e ci' (requiring the external causes), the anticausatives marked with the voice morphology can be formed with the internally caused roots.

In sum, the Korean '-e ci' construction generally behaved the same as Greek passives/anticausatives. In Korean, there are two types of morphologies in the anticausatives – zero¹³ morphology and '-e ci'. The voice morphology '-e ci', which is shared with passives, is combined only with the externally-caused roots to form anticausatives, and the internal and the cause unspecified roots form anticausatives without the voice morphology (zero anticausative).

However, there are differences between Greek and Korean passives/anticausatives. While the Greek cause unspecified roots form only passives with the non-active morphology, Korean counterparts can form both the anticausative and the passives. Moreover, in some cases, the Korean internally caused roots can be combined with the voice morphology '-e ci', contrary to the Greek internally caused roots, which do not allow the non-active voice morphology.

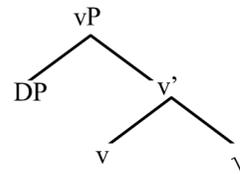
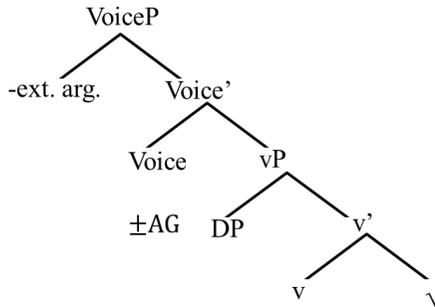
6. The structure of Passives / Anticausatives

As discussed in the previous section, implicit agents are licensed only in the passives but implicit causers can be licensed with the anticausatives. This means that the anticausatives have some causative semantics that is able to license the implicit causers. Moreover, this implies that the difference between the two constructions has to do with agentivity. Thus agentivity and causation should be represented by different functional heads in the decomposition of causatives.

¹³ Kim (2009) proposed that anticausatives without voice morphology are categorized as zero inchoatives (anticausatives). The cause unspecified and the internally caused roots (Type I) belong to the zero inchoatives.

(22) Passives / Voice marked anticausatives

(23) Zero anticausatives



(Alexiadou et al. 2006)

Alexiadou et al. (2006) proposed two types of structures for the passives and the marked or unmarked anticausatives. (22) represents the structures for the passives and the anticausatives with the non-active voice morphology and (23) is the structure for the anticausatives without the voice morphology¹⁴. The main difference between the two types of structures is the presence of VoiceP. That is, the structure in (22) is syntactically decomposed into three layers: Voice, v, and a root component; but (23) is decomposed into two layers: v and a root component.

Both structures have vP. v introduces a causal relation between the resultant state (expressed by a root and DP (Theme) complex) and a causing event. There is no agent relation in vP.

On top of vP, a Voice projection is added in structure (22). The Voice head introduces external arguments (Kratzer 1996) and has features relating to the semantic role of the (implicit) external arguments, [+/- agentive]. The feature [+/- agentive] is responsible for licensing the implicit agents and the implicit causers in the passives and the anticausatives. In the agent relation, the Voice head

¹⁴ The passives and the anticausatives with the non-active voice morphology, (ia) and (ib), correspond to the structure in (22) and the anticausatives without the non-active voice morphology (ic) correspond to the structure in (23).

- (i) a. I Maria dolofonithike apo to Jani. (Passive)
 the Mary-NOM murdered-Nact from the John
 'Mary was murdered by John.'
- b. to hirografo katastrafike me ti dinati fotia / apo mono tu. (Anticausative)
 the manuscript-nom destroyed-Nact with the strong fire / by itself
 The manuscript destroyed with the strong fire / by itself.'
- c. I spori muxliasan. (Anticausative)
 the seeds molded-Act.3pl
 'The seeds molded.'

hosts the feature [+AG], while, in the causal relation, the Voice head hosts the feature [-AG]. Since agents are licensed only in passives, the Voice head is marked as [+AG] in the passive structures. The agentive Voice ([+AG]) licenses the implicit agents, so that the agent PPs and agent-oriented adverbs are adjoined to VoiceP. On the contrary, agents are not licensed in anticausatives; so the Voice head bears the feature [-AG]. Since this non-agentive Voice ([-AG]) licenses causers, implicit causer PPs and by -itself phrases are adjoined to the vP that represents CAUSE. That is, the main difference between passives and anticausatives (agentivity) can be captured by the feature [+AG], which is present only in passives.

Moreover, the Voice head is a locus of non-active morphology, and as discussed in the previous section, the non-active voice morphology appears whenever Voice lacks the explicit external argument, as in (24).

(24) $V \rightarrow V\text{-VOC}[\text{NonAct}]/___ \text{ No external DP argument}$ (Embick 1998)

Thus, the marked voice morphology is not present in (23), but it is present in (22) because the voice morphology related to the passives and the anticausatives is the morphological instantiation that there is no external argument.

Therefore, the passives and the anticausatives with voice morphology have the structure of (22), where VoiceP is present. In particular, the marked anticausatives bear the feature [-AG], but the passives bear the feature [+AG] in the Voice head. On the other hand, the zero anticausatives have the structure of (23), where VoiceP is absent, because they do not share the voice morphology with passives.

7. The structure of Korean '-e ci' constructions

Following the two types of the passives/anticausatives structures proposed by Alexiadou et al. (2006), the structures of the Korean '-e ci' constructions are analyzed. As discussed in the previous section, the morphological marker '-e ci' is a non-active voice morphology, because it appears only when the external argument is absent. Thus, I propose that the passives and the anticausatives marked with the voice morphology '-e ci' have the structure in (22), but that the zero anticausatives have the structure in (23). Moreover, since the four classes of verbal roots correlate with anticausative/passive formations, I will analyze the structures of the passives and the anticausatives with respect to the verbal root meanings.

First, when the agentive roots are attached to the voice morphology '-e ci', only passives are formed. Hence, the agentive roots only occur in the structure of (22), in which Voice is marked as [+agentive]. The reason why agentive roots cannot

form anticausatives is because the semantics of the agentive roots implies the event that makes reference to the agentive external argument. However, there is no mechanism that can suppress the agent in the lexical meaning of the root (Davis 2000; Doron 2003); they are only compatible with passives.

Second, the externally caused roots with the voice morphology ‘-e ci’ can form both passives and anticausatives. The meaning of the externally caused roots requires external arguments; so Voice should be present. Thus, the passives and the anticausatives with the externally caused roots appear in the structure of (22). Also, the externally caused roots are compatible with both the agent relations and the causer relations. So, they can combine with the features [+AG] and [-AG], respectively.

Third, the cause unspecified roots have no specification for the internal or the external causes; this means that the type of causation is unspecified. Since these roots can show up without an external argument, the zero anticausatives can be formed in the context of (23), in which VoiceP is absent. Moreover, since these roots can appear with the external argument, the voice morphology ‘-e ci’ can be attached to the roots, when there is no explicit external argument; either passives or anticausatives are formed, with the feature [+AG] and [-AG], respectively.

Finally, the Korean internally caused roots are divided into two types: one is incompatible with ‘-e ci’ (Type I) and the other is compatible with ‘-e ci’ (Type II). Type I has the structure of (23), where VoiceP is not included, because the internally caused roots fundamentally do not require external causes; so the internally caused roots-Type I correspond to the zero anticausatives. On the other hand, the internally caused roots-Type II are compatible with the implicit external arguments, so they have the structure of (22), in which VoiceP is contained¹⁵. Although the fundamental meaning of the internally caused roots does not denote the event that is brought about by the external force, when the meaning of the combination between a Theme argument and the root is compatible with the meaning of ‘-e ci’, which refers to the event caused by external force, then the fundamental verbal root meaning can be overridden.

8. Conclusion

In this study, I argued that the morphological marker ‘-e ci’ is the instantiation of the absence of external arguments and investigated the behavior of the Korean ‘-e ci’ constructions with the semantics of each verbal root class. I found out that the

¹⁵ I assume that with respect to the value of the agentive feature both options ([+AG] or [-AG]) are possible depending on the meaning of the combination between Theme and internally caused roots.

'e ci' constructions can form passives with the verbal roots that require the external arguments (the agentive, the externally caused, the cause unspecified roots); the anticausatives cannot be formed with the agentive roots, which necessarily require the agent arguments. However, contrary to the previous arguments that the transitive verbs can only form passives with 'e ci', it is discovered that non-agentive transitive roots do form anticausatives. Moreover, I argued that there are two types of the anticausatives – zero or 'e ci' anticausatives. Since the valency reduction is marked by the voice morphology 'e ci', the zero anticausatives appear only with the roots that do not require external arguments (the internally caused, the cause unspecified roots).

The difference among the passives, the 'e ci' anticausatives and the zero anticausatives is captured by the varying syntactic structures. I proposed that the morphological similarity between the passives and the 'e ci' anticausatives is due to the presence of VoiceP, which introduces the external arguments. Moreover, the lack of the voice morphology in the zero anticausatives is explained by the absence of the VoiceP.

This study is significant in that it contributes to establishing controversial 'e ci' constructions (passives or anticausatives) by investigating them based on the four classes of verbal root meanings and by explaining different types of 'e ci' constructions with distinct syntactic structures under DM. Moreover, this study found cross-linguistic similarity in passives/anticausatives of Korean and Greek by showing that the morpheme 'e ci' has the same function as the Greek non-active voice morphology.

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Submitted on: January 19, 2016

Revised on: February 24, 2016

Accepted on: February 24, 2016