15th century Korean Grammar from a Viewpoint of Linguistic Typology and Historical Grammar

PARK Jinho

Introduction

The 15th century has a special significance for the historical study of the Korean language because Hunmin jeongeum was invented in this period, by which one became able to write the Korean language very precisely. In order to study Korean before the 15th century, one must depend on the Sino-Korean orthography, much coarser than *hangeul*, and to make things worse, with limited data. In contrast, from the 15th century, there is abundant data, and the orthography is fine-grained, so one can come closer to the linguistic facts. Given this situation, it is natural that the historical study of Korean began from the 15th century. Therefore, after the language of the 15th century had been studied sufficiently, on this basis, that of the period before the 15th century was studied retrospectively, while that of the later period was studied prospectively. In other words, the 15th century has been the bridgehead for the historical study of the Korean language.

15th century Korean has been studied more extensively than other periods, due to the more precise and homogeneous orthography, but many aspects remain to be investigated thoroughly. So far, the grammatical study of 15th century Korean has been done mainly from an internal perspective, which means that researchers have been reading textual material from this period meticulously and describing the observed grammatical patterns.[1] As a matter of fact, such an approach has contributed much to describing the linguistic facts objectively and faithfully, but if it has limitations, one needs to attempt other approaches.

A major source which can provide an external perspective is linguistic typology. Linguistic typology has been applied inductively to many languages of the world, and has led to the discovery of linguistic universals and patterns of variation. In virtue of such efforts, the grammatical organizations of many languages, various means of expressing grammatical categories, and how geographically adjacent languages show similar patterns have been revealed. In particular, tense-aspect-modality and transitivity have been studied very precisely, so these studies provide the framework on the basis of which one can look into 15th century Korean.

In addition, the diachronic perspective is also very important. Many linguistic materials before the 15th century have been discovered in the last 30 years. The amount of *eumdokgugyeol* 音讀口訣 material from the late Goryeo period equals that of *hangeul* material, and in the *sedokgugyeol* 釋讀口訣 material, grammatical elements are written very precisely, so the grammatical study of the Goryeo period Korean has produced remarkable results. In the past, there had been a large gap between the grammar of the Silla language using the *hyangga* material and that of 15th century Korean, but in virtue of *gugyeol* materials, this gap has been bridged. The grammatical study of *gugyeol* material, in turn, has shed light on the decipherment of *hyangga*. These studies have many implications for the grammatical study of 15th century Korean.

In this paper, I will take a new look at the grammar of 15th century Korean on the basis of linguistic typology and the Sino-Korean materials of the Silla and Goryeo periods. I hope that my approach from the external perspective will enable more insightful analysis than previous ones.

Tense-aspect System

The Problem

The tense-aspect system of 15th century Korean has some peculiarities. In most languages which have a tense distinction between past and non-past, if they encode one of them as a zero marker, it is non-past that is encoded as a zero, and past is usually encoded as an overt marker. In contrast to this tendency, in 15th century Korean, non-past is expressed as an overt marker, and it is past that is expressed as a zero marker. For instance, the non-past form of the verb ga- (to mean "go") is *ga-nʌ-da* 'go-PRS-DEC' or *ga-nʌ-nila* 'go-PRS-DEC', whereas its past tense form is *ga-ø-da* 'go-AOR-DEC' or *ga-ø-nila* 'go-AOR-DEC.'

In fact, there were two past tense forms. In addition to *ga-ø-da* and *ga-ø-nila*, there are two additional past tense forms of the verb *ga-*: *ga-deo-la* 'go-IMPERF-DEC' and *ga-deo-nila* 'go-IMPERF-DEC.' In other words, *-deo-* as well as ø marked past tense.[2]

In addition, there were *-geo-* and *-eo is-* which are related to past tense although they are less frequent than ø and *-deo-*. One of the two usages of *-eo is-*, through the intermediate stages of *-es-* and *-eos-*, became the prefinal ending *-eoss-* in modern Korean. Some instances of *-eo is-*, *-es-*, and *-eos-* in the 15th century correspond to the modern *-eoss-*, and others correspond to the modern *–eo iss-*.

On the basis of these facts, the following questions can be raised. First, how did the unusual system arise in which past is encoded as ø? Second, how were the grammatical elements which express past-related meanings differentiated? I will discuss the first question in the next section, and examine the second question from a typological point of view in this section.

Typologists have discovered the following recurrent patterns as they investigated tense-aspect systems in many languages:

① The binary system of past and non-past as well as the tertiary system of past, present, and future is equally frequent.

② If a language has a sufficiently grammaticalized aspect system, it is usually a binary system of perfective and imperfective.[3]

③ The distinction between perfective and imperfective usually appears in the past tense, and is infrequent in the present tense.

④ Among aspectual values which are not as grammaticalized as perfective and imperfective, perfect, progressive, or resultative aspects are frequently attested.

⑤ A language can have both the more grammaticalized aspectual distinction of perfective vs. imperfective and less grammaticalized aspectual values.

The Opposition between ø and -deo-

The question of the opposition between ø and *-deo-* can be answered in large part by ②. That is, ø encodes past perfective, while -deo- encodes past imperfective. This position was presented by Choi (2015) and Ito (2009).

It is helpful to look at the adnominal inflections of verbs in modern Korean, in order to have a sense of the opposition between ø and *-deo-*. The tense-aspect system has experienced substantial change from the 15th century to modern times, and the driving force of this change was the grammaticalization of *-eoss-*. This element has taken the status of the main past tense marker, and the tense-aspect system was reorganized at a large scale due to this change. However, except for Gyeongsang provincial dialects, *-eoss-* did not intrude into adnominal inflections, so the adnominal inflections are maintaining their state from the 15th century. What is the difference between *ilg-ø-eun* 'read-AOR-ADN' and *ilg-deo-n* 'read-IMPERF-ADN'? Both express that the action of reading was performed at a point in the past, but the former gives the impression that this action was completed, whereas the latter suggests that the action was ongoing in the past, not completed. The difference between *nilg-ø-da* and *nilg-deo-la* or *nilg-ø-eunila* and *nilg-deo-nila* is essentially the same as this.

To digress, in inflections other than adnominal, as *-eoss-* was established as a main past tense marker, the former past tense markers ø and *-deo-* underwent substantial changes. In verbal inflection, for encoding past tense, ø came to be no longer used except for adnominal forms, and *-deo-* survived by acquiring mirative and evidential meanings although the frequency was lowered due to these additional meanings.

Prefinal Ending -geo-

-Geo- appears frequently in the 15th century materials although not as frequent as ø or *-deo-*. As a matter of fact, *-geo-* in the 15th century has two usages, and this is the result of a merging of two distinct elements from the previous period. One was written as "ㅕ" (*gyeo*) in the Sino-Korean orthography, while the other was written as "ㅓ" (*geo*). The former encoded meaning irrelevant to tense-aspect (probably modality or mood), whereas the latter had meaning related to tense-aspect.

What is the precise nature of this latter element? In simple terms, it can be considered a perfect aspect marker. Perfect aspect expresses that a past event is relevant to the present. The construction "*have* + past participle" in English is a representative perfect marker.

A past event can have present relevance in many ways:

---

3. These two aspectual values are also called "aorist" and "imperfect" respectively.

①Its temporal position is near the present, so its effects remain in the present. (recent past, near past, or immediate past)

②It started at a point in the past, but has been continuing up to the present. (durative)

③The subject referent has the experience of the event up to the present. (experiential)

④The event occurred in the past, and was completed in the past, but the resultant state is obtained in the present. (resultative)

The "*have* + past participle" construction in English has all of these four senses. *-Geo-* appears to have fewer senses. In sentence-final inflections, the recent past meaning is salient. *O-na-da* 'come-PERF-DEC' (*-na-* is an allomorph of *-geo-*) expresses that the event of coming occurred immediately before the speech time. *Bam-i gip-geo-da* 'night-NOM deep-PERF-DEC' expresses that it has become a deep night a moment ago. *-Geo-* cannot refer to an event in the remote past. In adnominal inflections, usages other than recent past are prevalent. *Dina-geo-n* 'pass-PERF-ADN' is translated into *jina-ø-n* 'pass-AOR-ADN' of modern Korean. The reason that the author used *-geo-* instead of ø, is that the event of time passing is continuing up to now, so this usage can be considered an instance of durative.

-Eo is- Construction

-Eo is- has variants: *-es-* and *-eos-*. Some scholars (such as Seunguk Lee, Dongwan Han, and Eonhak Chung) insist that different forms must have different meanings, but the position that these variants had essentially the same meaning in the 15ᵗʰ century is more firmly established because these appear interchangeably in the same contexts (Choi 2015; Park 2018). When an element is grammaticalized, erosion of form and semantic bleaching occur in parallel, but their pace is not always synchronized. One can proceed significantly, and the other can fall behind. In a similar vein, when a person gets old, many changes such as hypomnesis, hair whitening, hypokinesia, and loss of skin elasticity occur at once, but some of them can proceed in advance of others.

-Eo is- in the 15ᵗʰ century is the ancestor of the modern *-eo iss-*, but the former had a much broader meaning than the latter—i.e., the former also had the function of *-go iss-* in modern Korean. *-Go is-* seldom appears in the 15ᵗʰ

century, and had only the resultative use, combined with transitive verbs which refer to actions of wearing or putting on. Intransitive resultative (expressed by *-eo iss-* in modern Korean), progressive and transitive resultative (expressed by *-go iss-* in modern Korean) were all expressed by *-eo is-* in the 15ᵗʰ century. That is, *anj-a iss-* 'sit.down-CONV exist' in modern Korean corresponds to *anj-a is-* of the 15ᵗʰ century, and both *ga-go iss-* 'go-CONV exist' and *ga-a iss-* 'go-CONV exist' correspond to *ga-a is-* of the 15ᵗʰ century. Even *ip-go iss-* 'put.on-CONV exist' in modern Korean corresponds to *nip-eo is-* 'put.on-CONV exist' of the 15ᵗʰ century. The converbal ending *-a/eo* had a much wider use than *-go*, and this was not confined to the context of the auxiliary *is-*, but obtained also in clause combining. *Bae-leul ta-go gang-eul geonneo-* 'ship-ACC ride-CONV river-ACC cross' in modern Korean translates to *boy-elul tʌ-a gang-ʌl geonneo-* of the 15ᵗʰ century. This wide usage of *-eo is-* in 15ᵗʰ century Korean reminds us of *-te iru* in modern standard Japanese and *zhe* 着 in Mandarin Chinese.

Naturally, *-eo is-* was a new-comer in the tense-aspect system of 15ᵗʰ century Korean. *-Geo-* was also peripheral in comparison to ø and *-deo-*. I can make this assertion on the basis of frequency. 15ᵗʰ century Korean had the opposition between perfective and imperfective as a main axis, and also had perfect aspect as a peripheral addition. Such a system is widespread among languages of the world. For instance, in French before "*avoir* + past participle" was grammaticalized, the opposition between simple past (past perfective) and imperfect (past imperfective) was the main axis in the past tense, and the "*avoir* + past participle" construction had the perfect aspect function similar to "*have* + past participle" in English. In modern French, the simple past has fallen out of use, and "*avoir* + past participle" took its place.

Functions of ø and -deo- in the Narrative Discourse

When a language has an opposition between perfective and imperfective in the past tense, these two are usually used differently in the narrative discourse. Perfective is used in foreground events, which advance the main plot of the story, whereas imperfective is used in background events which support the main events. If a language does not have perfective and imperfective but has similar aspectual markers, you can also see similar phenomena. For instance, in English, simple past tense tends to be used in foreground, whereas past progressive or past perfect tends to be used in background. Also in modern Korean, *-eoss-* tends to be used

in foreground, *-eoss-eoss-* or *-eo iss-eoss-* is used when describing background events which had occurred before, and *-go iss-eoss-* is used when describing background events which were obtained at the same time as the main events.

(1) a. 철수는 10년 만에 순희와 재회했다. (foreground: *-eoss-*)

　　b. 순희는 3년 전에 이미 남편을 여의고 혼자 되어 있었다.

　　　(background: *-eo iss-eoss-*)

　　c. 두 사람은 한동안 아무 말 없이 길을 걸었다.

　　　(foreground: *-eoss-*)

　　d. 거리는 성탄을 즐기기 위해 나온 젊은 연인들로 북적거리고 있었다.

　　　(background: *-go iss-eoss-*)

　　e. 순희가 침묵을 깨고 입을 열었다. (foreground: *-eoss-*)

Then you can expect that in 15th century Korean, ø was used in foreground, and *-deo-* in background. There are many examples confirming this expectation.

(2) a. 六師이 弟子 勞度差ㅣ 幻術을 잘 ㅎ더니 (background: *-deo-*)

　　b. 한 사름 알픠 나아 呪ㅎ야 흔 남글 지스니 (foreground: ø)

　　c. 즉자히 가지 펴디여 모든 사ㄹ 물 ㄱ리두프니 (foreground: ø)

　　d. 곳과 여름괘 가지마다 다ㄹ더니 (background: *-deo-*)

　　e. 舍利弗이 神力으로 旋嵐風을 내니 (foreground: ø)

　　f. 그 나못 불휘를 쌔혀 그우리 부러 가지 것비쳐 드트리 드외이

　　　 붓아디거늘 (foreground: no opposition)

　　　　　　　　　　　　　　　　　　　　(釋詳 6:30a-6:31a)

In (2), ø is used in foreground events, while *-deo-* is used in background events, as expected, in front of the converbal ending *-ni*. In (2f), the converbal ending is *-geoneul*, and *-deo-* cannot appear in this environment, so there is no opposition of ø and *-deo-*.

　　It is notable that *-deo-* is used not only in background, but also in foreground, not infrequently.

(3) a. 西天ㅅ 法에 모로매 프를 실오 안쩌니 (=*anj-deo-ni*. background: *-deo-*)

　　b. 天帝釋이 사ㄹ미 두외야 孔雀이 목빗 ㄱ튼 프를 뷔여 가거늘

　　　(foreground: no opposition)

　　c. 菩薩이 일흐믈 무르신대 (foreground: no opposition)

　　d. 對答ㅎ�보디 吉祥이로이다 ㅎ고 그 프를 받ㅈ바늘

　　　(foreground: no opposition)

　　e. 菩薩이 바다다가 싣ㄹ시니 짜히 ㄱ장 드러치더라 (foreground: *-deo-*)

　　　　　　　　　　　　　　　　　　　　(釋詳 3:42b-3:43a)

(4) a. 王이 婆羅門을 만히 請ㅎ시고 太子 아나 나샤 일홈 지터시니

　　　(=*jih-deo-si-ni*. background: *-deo-*)

　　b. 모다 슬ㅸ보디 "나싫 저긔 吉慶 드왼 祥瑞 하시란디 일후믈

　　　薩婆悉達이라 ㅎ�사이다" (foreground: main predicate ellipsed)

　　c. 虛空애셔 天神이 붑 티고 香 퓌우며 곳 비코 닐오디 [天神은 하눐

　　　神靈이라] 됴ㅎ시이다 ㅎ더라 (foreground: *-deo-*) (釋詳 3:2b-3:3a)

In statistics obtained from Volume 3 of *Seokbosangjeol*, ø was used in foreground 69 times, and there was no instance of ø used in background. In contrast, *-deo-* was used in background 43 times and in foreground 42 times. The number of instances of *-deo-* in foreground is comparable to that in background. On the basis of this fact, one could argue that *-deo-* in 15ᵗʰ century Korean was not an imperfective marker, but I think this is an overstatement. Linguists' conception of the prototype of perfective and imperfective was formed mainly on the basis of Slavic and Romance languages, and on the basis of observing these languages, the expectation was also formed that perfective is used in foreground and imperfective in background. If one rules out a candidate just because it fails to satisfy one of many expectations about the prototype, this judgement does not accord with the spirit of prototype theory. From the point of view of prototype theory, *-deo-* in 15ᵗʰ century Korean is somewhat off the focal point of imperfective prototype, in that it is used as frequently in foreground as in background, but in other respects, it shows enough properties of imperfective.[4] Only *-deo-* can be used in background, but either ø or *-deo-* can be used in foreground, so one has to investigate the semantic or functional difference between these two in foreground in the future.

---

4. The imperfective in Romance languages can also sometimes be used in foreground: "*Pierre appela* (foreground: perfective) *au secours. L'instant d'après, un policier arrivait* (foreground: imperfective), *défonçait* (foreground: imperfective) *la porte et libérait* (foreground: imperfective) *Pierre*." You can see that the correlation between imperfective and background is not perfect even in Romance languages.

Prefinal Ending -nʌ-

The Question

You can see many instances of the prefinal ending *-nʌ-* in 15th century material, and this ending has survived as *-neu-* in modern Korean. It is widely accepted that this ending is combined only with verbs, not with adjectives, and that this ending and its descendant encode present tense, but there are counter-examples to both of these two generalizations.

In Sino-Korean material, there are three characters 內, 飛, and 臥 which can be related to *-nʌ-*. These three characters are considered to correspond to two elements in ancient Korean, *-nʌ-* and *-nu-*. This implies that these two merged into *-nʌ-* in middle Korean. Here arise two questions:

① What is the correspondence between the three characters 內, 飛, and 臥 on the one hand and the two elements *-nʌ-* and *-nu-* on the other?

② What is the grammatical and/or semantic difference between *-nʌ-* and *-nu-* in ancient Korean?

General Situation in the 15th century

The following table represents the tense-aspect inflections of verbs and adjectives in 15th century Korean, and is very similar to that of the adnominal inflections of modern Korean.

Realis Mood			Irrealis Mood Future Tense	
verb	adjective	meaning	verb	adjective
meok-Ø-da	---	past perfective		
meok-deo-la	*dyoh-deo-la*	past imperfective	*meok-euli-la*	*dyoh-euli-la*
meok-nʌ-da	*dyoh-Ø-da*	present		

The usages of *-nʌ-* can be classified as follows:

① State-of-affairs obtaining at the speech time

(5) 그저긔 多寶佛이 뎌 菩薩ᄭᅴ 니ᄅᆞ샤ᄃᆡ 善男子아 오나라 文殊師 利法王子ㅣ 네 모ᄆᆞᆯ 보고져 ᄒᆞᄂᆞ다.

善男子!來, 文殊師利法王子 欲見汝身.   (釋詳 20:41a)

(6) 導師ㅣ 닐오ᄃᆡ 두루 ᄇᆞ라면 白銀山이 잇ᄂᆞ니 보시ᄂᆞᆫ잇가 太子ㅣ 닐오ᄃᆡ 東南애 ᄒᆞᆫ 白銀山이 뵈ᄂᆞ다.

導師言:『四望應當有白銀山。汝見未耶?』太子言:『東南方有 一白 銀山現』   (月釋 22:39b-22:40a)

② State-of-affairs occurring habitually or iteratively

(7) 됴타 됴타 藥王아 네 이 法師ᄅᆞᆯ 어엿비 너겨 擁護ᄒᆞ는 젼ᄎᆞ로 이 陀羅尼ᄅᆞᆯ 닐어 衆生ᄃᆞᆯ 히그에 만히 饒益긔 ᄒᆞᄂᆞ다.

善哉, 善哉! 藥王! 汝愍念擁護此法師故, 說是陀羅尼, 於諸衆生, 多所饒益.   (釋詳 21:25a)

③ Timeless, gnomic fact

(8) 舍利弗아 엇뎨 諸佛 世尊이 다ᄆᆞᆫ ᄒᆞᆫ 큰 잀 因緣으로 世間애 나시ᄂᆞ다 ᄒᆞ거뇨 ᄒᆞ란ᄃᆡ 諸佛 世尊이 衆生ᄋᆞᆯ 부텻 知見을 여러 淸淨을 得게 호려 ᄒᆞ샤 世間애 나시며...衆生이 부텻 知見道애 들에 호려 ᄒᆞ샤 世間애 나시ᄂᆞ니 (釋詳 13:49a) / 舍利弗아 엇뎨 일후미 諸佛 世尊이 오직 一大事因緣 젼ᄎᆞ로 世間애 나 現ᄒᆞ샴고 諸佛世尊이 衆生ᄋᆞ로 부텻 知見을 여러 淸淨을 得게 코져 ᄒᆞ실ᄊᆡ 世間애 나 現ᄒᆞ시며...衆ᄋᆞ로 부텻 道애 들에 코져 ᄒᆞ실ᄊᆡ 世間애 나 現ᄒᆞ시ᄂᆞ니라.

舍利弗아 云何名諸佛世尊이 唯以一大事因緣故로 出現於世오 諸佛世尊이 欲令衆生ᄋᆞ로 開佛知見ᄒᆞ야 使得淸淨故로 出現於世 ᄒᆞ시며... 欲令衆生ᄋᆞ로 入佛知見道故로 出現於世ᄒᆞ시ᄂᆞ니라.
                    (法華 1:179a)

④ Scheduled future

(9) 太子ㅣ 使者 브려 利師跋王ᄭᅴ 닐오ᄃᆡ 善友 大海로셔 오ᄂᆞ다 ᄒᆞ야ᄂᆞᆯ...父母ㅣ 太子 오ᄂᆞ다 드르시고

太子遣使往白利師跋王:『善友從大海歸』....父母聞太子歸.
                    (月釋22:64a)

Special Usage of -nʌ- in the 15th century

As the conversion from adjectives to verbs was very productive in middle Korean, you can of course see many instances in which an original adjective has been converted to a verb and combined with *-nʌ-*. In addition, there are some instances in which an original adjective has not been converted to a verb but combined with *-nʌ-* (Lee 2009).

(10) 病 쓸휘 샹해 이셔 쏘 인는 바롤 조차 기러 죽음애 니르러도 오직 녜
    굳ᄂ니라.
    病根常在ᄒᆞ야 又隨所居而長ᄒᆞ야 至死只依舊ᅵ니라.

                                              (小學 5:3a_3-4)

(11) 火珠와 燈쵸 잡고 [火珠는 블 구스리니 블ᄀ티 븕ᄂ니라] 甲 닙고
    北方ᄋᆞ로셔와 北녁 겨틔 合掌ᄒᆞ야 셔며   (釋詳 3:28b)

(12) 어푼 손과 믯믜즌 마치로 갈홀 밧고디 아니ᄒᆞ야도 됴히 ᄡᅳ리는
    사ᄅᆞ몬 다 쉽ᄂ니라.
    伏手滑槌로 不換劒ᄒᆞ야도 善使之人ᄋᆞᆫ 皆總便이니라. (金三 3:14a)

(13) 一切 經論에 ᄆᆞᅀᆞ미 怯ᄒᆞ야 사오나옴 업ᄂ니 怯ᄒᆞ야 사오나옴
    업슬ᄉᆡ 곧 一切 經論智 일우믈 得ᄒᆞᄂ니
    於一切經論 心無怯弱 無怯弱故 即得成就一切經論智
                                       (원각하1-2:32b_7-10_해주)

(14) 大王하 아ᄅᆞ쇼셔 婬欲앳 이른 [婬欲ᄋᆞᆫ 婬亂ᄒᆞᆫ 欲心이라] 즐거부ᄆᆞᆫ
    젹고 受苦ᅵ 하ᄂ니
    大王當知 婬欲之事 樂少苦多   (月釋 7:18a)

(15) 識 믌겨리 안ᄒᆞ로 소ᄉᆞ면 곧 境 ᄇᆞᄅᆞ미 니러 샹녜 뮈오 智水ᅵ
    안ᄒᆞ로 얼의면 곧 ᄇᆞ람과 드틀왜 자아 샹녜 괴외ᄒᆞᄂ니 靜ᄒᆞ되
    靜ᄒᆞᆫ 相 업서사 眞實ㅅ 볼고미 제 비취리니 이ᄅᆞᆯ 닐온 住 업슨
    ᄆᆞᅀᆞ 나미며 이 眞實ㅅ 菩薩이 住홀 고디니라
    識浪이 內湧ᄒᆞ면 則境風이 作而常動ᄒᆞ고 智水ᅵ 內凝ᄒᆞ면
    則風塵이 息而常靜ᄒᆞᄂ니 靜無靜相이라사 眞明이 自照ᄒᆞ리니
    是謂無住生心이며 是眞菩薩住處ᅵ니라(金三3:34a_1-4_해함)

In (10), "녜 굳ᄂ니라" is the translation of 依舊, so it means "is the same as the past," not "become the same as the past." (11) is an encyclopedic explication of the term firebead 火珠, so "븕ᄂ니라" should be considered to be a description of the general properties of firebeads, not a change of state such as "become bright." (12) means that a skillful person deals well with materials even though their tools or other conditions are not good. "쉽ᄂ니라" in (12) means that it is easy in nature, not that it becomes easy. (13) cannot mean "disappear," as it is the translation of 無怯弱. (14) also means that sensual activities are accompanied by much pain and small pleasure by their nature, not that pain is increasing. Also in (15), as the adverb "샹녜" *always* shows, "괴외ᄒᆞᄂ니" means that it is calm always, not that it becomes calm.

In all of these examples, the verbal inflections containing -nʌ- assert generic/permanent facts. This accords with the property of "ᄂ/飛/內(ᄂ)" in Sino-Korean material.

It is peculiar that -eops- is often combined with -nʌ- in double negation constructions. These cannot be interpreted as meaning changes-of-state either.

(16) a. 三乘이 理를 아로ᄃᆡ 理를 窮究 아니홈 업ᄂ니
      三乘이 悟理ᄒᆞ되 理를 無不窮ᄒᆞᄂ니   (永嘉上12a)
    b. 十方 諸如來와 三世脩行ᄒᆞ리왜 이 法을 因ᄒᆞ야 普提 일우믈
      得ᄒᆞ디아니ᄒᆞ리업ᄂ니
      十方諸如來와 三世修行者ᅵ 無不因此法ᄒᆞ야 而得成菩提
      ᄒᆞᄂ니   (원각하 2-2:43b)
    c. 性을 受ᄒᆞ며 命을 바도미 븓디아니ᄒᆞ리업ᄂ니
      受性稟命이 莫不由之ᄒᆞᄂ니   (원각하 1-1:23b_11_해)
    d. 내 보니 일훔난 가문과 노픈 족쇽이 조샹이 튱심ᄒᆞ며
      효도ᄒᆞ며 브즈러니 ᄒᆞ며 검박호ᄆᆞ로 일워 셰디 아니리 업고
      ᄌᆞ손이 모딜며 경박ᄒᆞ며 샤치ᄒᆞ며 오만호ᄆᆞ로 업더디디
      아니ᄒᆞ리업ᄂ니
      余見名門右族이 莫不由祖先의 忠孝勤儉ᄒᆞ야 以成立之ᄒᆞ고
      莫不由子孫의 頑率奢傲ᄒᆞ야 以覆墜之ᄒᆞᄂ니 (飜小 6:20b_1-2)
    e. ᄒᆞ다가 사ᄅᆞ미 如來 滅後에 般若波羅蜜心을 發ᄒᆞ며
      般若波羅蜜行을 行ᄒᆞ야 닷가 니겨 아라 부텻 기픈 ᄠᅳ들 得ᄒᆞᆫ
      諸佛이 모ᄅᆞ시리업스시ᄂ니
      若有人이 於如來滅後에 發般若波羅蜜心ᄒᆞ며 行般若波羅
      蜜行ᄒᆞ야 修習悟解ᄒᆞ야 得佛深意者ᄂᆞᆫ 諸佛이 無不知之ᄒᆞ
      시ᄂ니   (金剛 37b)

Situation in the Modern Jeju Dialect

Adjectives in the modern Jeju dialect have two present tense inflections (Ko 2007).

  ① Declarative without -neu-
  (17) 이 구둘은 ᄃᆞᆺ다.
      (meaning: This room is warm now.)
  (18) 이 구둘은 지금 ᄃᆞᆺ다.
  (19) *이 구둘은 느량 ᄃᆞᆺ다.

② Declarative with -neu-

(20) 이 구둘은 둣은다.

(meaning: This room is warm always.)

(21) *이 구둘은 지금 둣은다.

(22) 이 구둘은 느량 둣은다.

③ Interrogative without -neu-

(23) 이 구둘은 둣으냐?

(meaning: Is this room warm now?)

(24) 이 구둘은 지금 둣으냐?

(25) *이 구둘은 느량 둣으냐?

④ Interrogative with -neu-

(26) 이 구둘은 둣느냐?

(meaning: Is this room warm always?)

(27) *이 구둘은 지금 둣느냐?

(28) 이 구둘은 느량 둣느냐?

These examples show that -neu- combined with adjectives indicates permanence or generic/gnomic truth.

Situation in Seokdokgugyeol

The character "ㅏ" (nu 臥) is considered to encode present tense, and the meaning and distribution (only combining with verbs, not with adjectives) are similar to those of -nʌ- in the 15th century. It never combines with the verbal noun ending "-ㄹ" (eulh), future/irrealis "-ㅈ-" (li), or imperative endings. There are 84 instances, and 6 additional instances of the variant "ㅅ" (no).

The character "ㅌ" (nʌ 飛) can combine with verbs, adjectives, or the copula. There are 465 instances.

(29) 一一國土ㅌ 中ラㅌ 一一佛亠 及ハ 大衆亠ノ亽ケㅣ 各ラ各ラホ
般若波羅蜜ㄴ 說(니르)ㅌ�二ㅣ(늑시다)   (구인 2:6-7)

(30) 能矢 答ᄼ二亽ㅌ 者無ㅌ(없)ㅌㅣ二ㅣ(늑시다)   (구인 3:3)

(31) {於}戒亠 及ㅌ 學亠ノ亽ラ十 常 順行ᄼㅌㄹ入ㄴ 一切 如來ㄹ
儀美ᄼㅎ리ㄹ 所(바)ㅣ(이)ㅌㅈㅋ(ㄴ리며)   (화엄10:13)

It can combine with the verbal noun ending "-ㄹ" (eulh), future/irrealis "-ㅈ-" (li), or the imperative ending "-쇼" (syeo), which implies that it cannot be a present tense marker.

(32) {於}諸言辭ラ十 動 不冬ㅎ 去 不冬ㅎ 住 不冬ㅎ 來 不冬ㅎ
ᄼナㅈ四 生滅ㄴ 現ㅌㄹ亠(늠여)   (금광 14:20)

(33) 若ㅌ 常ㅣ 戒ㄴ 持ㅎ 學處ㄴ 受ㅎᄼㅌㄹ入ㄱ(ㅎ늠든) 則ㅈ 能ㅈ
諸ㄱ 功德ㄴ 具足ᄼㅌㅈ⅓(ㅎ느리며)   (화엄 10:11)

(34) 佛子ㅎ 菩薩ㅣ 在家ᄼㄱㅣ十ㄱ 當ハ 願ロ己 の ㄱ 衆生ㄱ 家性ㅎ
空ノㄱのㄴ 知ㅎ示 其 逼迫ㄴ 免ㅈㅌ쇼(?ㄴ셔)ᄼㅅㅈ⅓   (화엄2:18-19)

It can also combine with the converbal ending "-⅓" (myeo) which is also a difference from -nʌ- in the 15th century.

(35) 時十 無色界ㅌㅈㄱ 量 無ㅌㄱ 變ノㄱㅌㅌ 大香花ㄴ 雨ㅎㄱ⁻
香ㄱ 車輪 {如}ㅣᄼㅎ 花ㄱ 須彌山王 {如}ㅣᄼナ亅亠 雲
{如}ㅣᄼㅎ 而⁻ 下ᄼロ ㅌㄴ⅓(ㅎ고늘며)   (구인 2:14-15)

(36) 大衆ㄱ 歡喜ᄼㅎ 金花ㄴ 散ᄼ白ロㅌㄴ⅓ (ㅎ습고늘며)
百億萬土ㄱ 六大動ᄼロ ㅌㄴ⅓(ㅎ고늘며) 生ㄴ 含ᄼㄱㅌㅌ{之}
生ㄱ 妙報ㄴ 受ロㅌㄱ亠   (구인 11:11-12)

It appears mainly in sentences expressing generic/permanent truths, not episodic events.

(37) a. 佛子ㅎ 若ㅌ 諸ㄱ 菩薩ㅣ 善ㅈ 其 心乙 用ᄼㅌㄹ入ㄱ 則ㅈ
一切勝妙功德乙 獲ㅌㅈ四   (화엄 2:12-13)

b. 若ㅌ 常ㅣ {於}諸ㄱ 佛乙 信奉ᄼ白ㅌㄹ入ㄱ 則ㅈ 能ㅈ 戒乙
持ᄼㅎ 學處乙 受ㅎᄼㅌㅈ⅓ 若ㅌ 常ㅣ 戒乙 持ㅎ 學處乙
受ㅎᄼㅌㄹ入ㄱ 則ㅈ 能ㅈ 諸ㄱ 功德乙 具足ᄼㅌㅈ⅓
          (화엄 10:10-11)

c. 若 身 充徧 虛空 如 安住 不動 十方 滿ᄼㅌㄹ入ㄱ 則 彼ㅎ
所行ㄱ 與ㅌᄼㅎ示 等ロ亽 無ㅎ 諸ㄱ 天亠 世人亠ノㅈ 能矢
知ノ亽 莫亠ナㅎㅌㅣ   (화엄 14:7-8)

d. 見聞ᄼㅎ 聽受ᄼㅎ 若ㅌ 供養ᄼㅎᄼロㅌ火ㅌㄹ入ㄱ 皆ㅌ
安樂乙 獲ㅣ 令ㅣㄹ 不ᄼㄹᄀノㄹ 靡ㅣㅌᄼㅌㅈ⅓ (화엄 14:10)

e. 善男子氵 若 得氵ホ 是 金光明經乙 聽聞ㆍㅂロナ٦ 一切
菩薩٦ 阿耨多羅三藐三菩提氵十٦ 退 不冬ㆍㅌㆎㅣ

(금광 13:23-24)

(38) 善男子氵 是 金光明經乙 聽聞ㆍㅎ 受持ㆍㅎㆍ٦ㅅ乙
以氵٦ㅅㅡ 故ノ 是 善男子ㅡ 善女人ㅡノアㄱ 一切 罪障乙
悉 能� 除滅ㆍロ 極清淨ㆍ٦ㅅ乙 得ㆍㅌㆎ� 常ㅣ 得氵ホ
佛乙 見ㅂㅎ 世尊乙 離 不矢ㆍㅎㆍㅎ 常ㅣ 妙法乙 聞ㅂㆍ 常ㅣ
正法乙 聽ㅂㅎㆍㅌㆎ� 不退地氵十 生ㆍㄴ 師子勝人乙 而ㅡ
得氵ホ 親近ㆍㅂ氵 相ノ 遠離 不冬ㆍㅌㆎ� … 無盡無減
無邊 佛身能 顯現 陁羅尼ㅡノア乙ㆍㅎ氵ㆍㅌㆎㅌㅣ

(금광 14:3-15)

In (37), "-ㅌアㅅ٦" in the protasis (conditional clause) and "-ㅌㆎ-
" in the apodosis show a kind of concord. Especially in (37b), the apodosis in the previous protasis-apodosis pair is repeated as a protasis in the new pair, and such 70 or so pairs are chained one after another. In (37d), the verbal inflection is more complex, but the fact that "-ㅌ-" appears both in the protasis and the apodosis remains the same. "-ㅌ-" can appear only in the protasis as in (37c), or can appear only in the apodosis as in (37e).

It can also appear in the apodosis paired with reason/cause clauses, as in (38). The sentences in (37) express generic statements that if Bodhisattvas do such-and-such things, then such-and-such things result. (38) also expresses the generic statement that if one hears and keeps the words in *Golden Light Sutra* (*Suvarṇaprabhāsa Sūtra* 金光明經), (s)he will get such-and-such things. The feature that *-nʌ-* appears both in the protasis and the apodosis expressing a generic/gnomic truth is shared with the sentence in "Anminga" 安民歌, which we will look at later.

Next, let us look at the imperative "-ㅌ立" (*nʌsyeo*).

(39) a. 佛子氵 云何ㅌㆍㄱ乙 用心ㆍㄱㅣ十 能又 一切勝妙功德乙
獲アㆍㅣノ今ロㆍㆎアㅅ٦ 佛子氵 菩薩ㅣ 在家ㆍㄱㅣ十٦
當ハ 願ロアㅅ٦ 衆生٦ 家性氵 空ノㄱㅅ乙 知氵ホ 其 逼迫乙
免又ㅌ立ㆍㅅㆎ345

(화엄 2:17-19)

b. 睡眠乙 始ㅌㆎ 寤ㅗ٦ㅣ十٦ 當 願 衆生 一切智ㅡ 覺ノアㅿ
周ㅌ 十方乙 願ㆍㅌ立ノㆎナㅣ

(화엄 8:15)

The verbal inflection "-ㅌ立" appears 130 or so times from (39a) to (39b). In the middle portion, some grammatical elements are not written, but the recurrent pattern of the structure can be represented as follows:

(40) S1-ㄱㅣ十٦ 當ハ 願ロアㅅ٦ [S2-ㅌ立] ㆍㅅㆎ345

In the middle portion, "ㆍㅅㆎ345" is not written, and in the last sentence (39b) "ノㆎナㅣ" appears instead of "ㆍㅅㆎ345." The subject of the matrix verb 願 is 菩薩, and the subject of the embedded clause S2 is 衆生. When the matrix and embedded subjects are different in the construction of hope in the 15ᵗʰ century, the ending *-gwadyeo* is used in the embedded clause. If S2 in (40) is an instance of indirect speech, "-ㅌ立" can be considered to be similar to *-gwadyeo* in the 15ᵗʰ century. If S2 in (40) is an instance of direct speech, "-ㅌ立" can be considered as a kind of imperative ending. It is difficult to pinpoint the exact meaning of "-ㅌ-," but it can be the same element in (37) and (38) which encodes permanence or gnomic truth, in that (39) is a general statement about what it is to get *ilcheseungmyogongdeok* 一切勝妙功德.

Some instances of "ㅌ" appear in sentences expressing episodic events.

(41) a. 一一國土ㅌ 中氵十 一一佛氵 及ハ 大衆氵ノ今ㅌㅣ
各氵各氵ホ 般若波羅密乙 說ㅌㆍㅎㄴㅣ   (구인 2:6-7)
b. 其 會ㅌ 方廣٦ 九百五十里ㅣ٦乙 大衆ㅣ 僉然� 而ㅡ 坐ㆍㅌ
ハㄴㅣ   (구인 2:8-9)
c. 是 金光明經乙 說ア 已氵ㆍㅂハㄴㄱ 三万億 菩薩摩訶薩٦
無生法忍乙 得ㅌㆍハㄴㆎ 量 無٦ 諸 菩薩٦ 菩提心乙 退
不冬ㆍㅌㆍハㄴㆎ 量 無ㆎ 邊 無ㆍ٦ 比丘٦ 法眼淨乙 得ㅌアㆎ
量 無٦ 衆生٦ 菩提心乙 發ㆍㅌㅣ   (금광 14:22-24)

As the sentences in (41) are describing specific events which occurred in a specific Buddhist ceremony, "ㅌ" in these sentences cannot be considered to encode permanence or gnomic truth. Such instances appear only in the *Old Translation of Humane King Sutra* 舊譯仁王經 and *Golden Light Sutra*. Considering these examples, it is better to recognize the polysemy of *-nʌ-*, rather than trying to embrace various senses of *-nʌ-* by one semantic label.

As sentences in (41) are narrative descriptions of past events, it appears to be difficult to consider the meaning of "-ㅌ-" as present tense from a common-

sense perspective. However, one could still insist that it is possible to use a present tense marker in narratives about past events (e.g., historical present). From such a point of view, it would not be entirely impossible to see "-ㄴ-" as a present tense marker. Another possibility is that "-ㄴ-" in (41) expresses a meaning unrelated to tense.

Situation in Hyangchal and Idu

The character 臥 (nu) is essentially the same as "-ㅏ-" in *seokdokgugyeol*.

(42) 惡寸 習 落臥乎隱(디누온) 三業   (懺悔業障歌)

(43) a. 衆矣 白賜臥乎(숣시누온) 皃如 加知谷寺谷中 入 成造爲賜臥
        亦之(ᄒ시누여다) 白臥乎(숣누온) 味 及 白節中   (慈寂碑陰 3-4)

     b. 覺眞 國師門徒等乙 不動入院 完護衆作法祝上是在 味
        出納爲臥乎 事是去等 右事須貼   (白巖寺貼文)

The character 飛 (nʌ) does not appear in *idu* 吏讀, and appears only once in *hyangga*.

(44) 衆生 安爲飛等 / 佛體 頓叱 喜賜以留也   (항순중생가)

In (44), -nʌ- appears in the protasis of a complex sentence stating a generic fact.

The character 內 does not appear in *seokdokgugyeol* and appear frequently in *hyangchal* 鄕札 and *idu*. There has been a debate on the reading of this character. The first group of scholars (such as Punghyeon Nam and Yong Lee) think that this character is used for its meaning, and read it as *an*. Other scholars (such as Jinho Park and Inyeong Heo) think that this character is used for its pronunciation. When adopting the latter position, the exact reading of this character in ancient Korean material is controversial. The pronunciation in the 15ᵗʰ century was "ᄂᆡ" (nʌy), but the pronunciation in the Silla period had probably been "뉘" (nuy) with lip rounding. The reasons are as follows:

(a) 內 was hékǒuzì 合口字 with lip rounding in middle Chinese.

(b) 內 corresponds to "뉘" (nuy) in the transliteration of personal names:
    e.g., 赫居世~不矩內.

(c) 詞腦, 詩惱, and 思內 were used interchangeably as terms referring to *hyangga* in *Samguk yusa* and *Samguk sagi*.

As the pronunciation of 內 in ancient Korean was "뉘" (nuy), and "ᄂᆡ" (nʌy) in the 15ᵗʰ century, one can infer that a change in the pronunciation occurred at some point in time. One cannot know exactly when such a change occurred. Therefore, some instances of 內 in *hyangchal* and idu correspond to "ㅏ" (nu) in *seokdokgugyeol*, whereas others to "ㄴ" (nʌ). It is a task for the future to distinguish these two classes.

The usages of the character 內 can be classified as follows:

① Used in sentencses asserting permanent/gnomic truths

(45) 君如 臣多支 民隱如 爲內尸等焉 / 國惡 太平恨音叱如 (안민가)
         ᄒ-ㄴ-ᄚᄃᆞᆫ   太平ᄒ-ㄴ-ᄯᅡ

cf. (46) 吾肹 不喩 慚肹伊賜等 / 花肹 折叱可 獻乎理音如   (헌화가)
         붓그리사-ᄚᄃᆞᆫ   받-오-라-ᄯᅡ

Both (45) and (46) consist of the protasis and the apodosis. Both clauses in (45) contain -nʌ-, whereas neither of the two clauses in (46) contains it. (46) is stating a specific fact that occurred between Suro-buin 水路夫人 and an old man who was taking a cow. In contrast, (45) is stating a general fact about a country, its king, his lieges, and the people. The prefinal ending 內 encodes the sense of permanence or gnomic truth, and corresponds to "ㄴ" in *seokdokgugyeol*.

The following sentence from *idu* also describes a general method of making Buddhist manuscripts, and contains 內.

(47) 經之 成內(일ᄂᆞᆫ) 法者 楮根中 香水 散尓 生長令內旅(ᄒ이ᄂᆞ며)
                                                     (華嚴經寫經造成記 2)

② Used with -良齊 (ajyeo) or -去齊 (geojyeo) expressing hope

(48) a. 郎也 持以支如賜烏隱 / 心未 際叱肹 逐內良齊 (찬기파랑가)
     b. 衆生叱 海惡中 / 迷反 群 無史 悟內去齊   (보개회향가)

It is clear that the combinations -內良齊 (nʌajyeo) and -內去齊 (nʌgeojyeo) express the sense of hope, but it is difficult to isolate the contribution of 內 in this construction. In later *idu* and *hangeul* materials, -良齊 (ajyeo) or -去齊 (geojyeo) express hope without 內.

③ Used in sentences expressing specific/episodic events.
　(49) a. 千手觀音叱前良中 / 祈以支(支)白屋尸 置內乎多(두ᄂᆞ오다)

(禱千手觀音歌)

　　　b. 吾隱 去內如(가ᄂᆞ다) 辭叱都 / 毛如 云遣 去內尼叱古(가
　　　　ᄂᆞ닛고)　　　　　　　　　　　　　　　　　　(祭亡妹歌)

　(50) a. 右寺原 問內乎矣(묻ᄂᆞ온ᄃᆡ) 大山是在以 別地主 無亦在彌

(慈寂碑陰 3)

　　　b. 一品軍作隣ㅏ 二十一人亦 堀取五尺石築十尺方良中 排立令是
　　　　白內乎矣(ᄒᆞ이ᄉᆞᆲᄂᆞ온ᄃᆡ)　　　(淨兜寺形止記 27-28)

All the sentences in (49) of *hyangga* and (50) of idu refer to specific events, and correspond to "ㅌ" in (41) of *seokdokgugyeol*.

A Hypothesis about the Origin and the Development of -nʌ- and -nu-

A hypothesis about the diachronic change of *-nʌ-* and *-nu-*

In ancient Korean, there were two prefinal endings (or auxiliary verbs in some theories):

　① *-nu-*: encodes present tense. combines only with verbs. written as 臥 or 內.
　② *-nʌ-*: encodes permanent/gnomic facts. can combine with verbs,
　　　　adjectives or the copula. written as 飛/ㅌ or 內.

character			transliteration	function	combinatorics
hyangchal	*idu*	*gugyeol*			
爲飛如		ッㅌㅣ	ᄒᆞᄂᆞ다 (*hʌnʌda*)	permanency	verbs, adjectives, or copula
爲內如	爲內如				
爲臥如	爲臥如	ッㅏㅣ	ᄒᆞ누다 (*hʌnuda*)	present tense	only with verbs

Most instances of *-nʌ-* in the 15th century are mainly descendants of ①, despite their appearance. Instances of *-nʌ-* combining with adjectives in the 15th century and the modern Jeju dialect are descendants of ②.

At some point in time in the Ancient Korean period, these two prefinal endings merged into one. How the very peculiar pattern arose in which present tense is encoded by an overt marker and past tense by zero in the 15th century Korean can be explained in part by the fact that *-nʌ-* was not originally a present tense marker.

A hypothesis about the origin of the permanence marker *-nʌ-*

Many languages use a nominal encoding in order to express permanence, for example, the bound noun "もの" (*mono*) in Japanese.

　　Subject + predicate in terminal inflection: either temporary state reading or permanent property reading. (unmarked)
　　Subject + predicate in adnominal inflection + もの + copula: only permanent property reading. (marked)

(51) 大人は分別を備えているものだ。
(52) 子どもはよく服を汚すものだ。
(53) 人は物事が思い通りにいかなかった時、自分の為に理由を探す
　　ものだ。

Seokdokgugyeol has a bound noun "ㅌ," corresponding to "もの" (*mono*) or "こと" (*koto*) in Japanese.

(54) 復ッㄱ 十方淨土乙 變ッ౩ 百億高座乙 現ッ౩ 百億須彌寶花乙
　　化ッ౩ノㄱㅌ 有ㅌナㄱ︰　　　　　　　　　(구인 2:2-3)
(55) 三生乙ッ口 正位౩十 入ッㄱㅌ꜀ㄲㅣ౩{者} 或ッㄱ
　　四生︰ 五生︰ 乃ᵎ至ㅣㅣ 十生︰ノ乙ッ口 得ㅏ 正位౩十
　　入ッㄱㅌ꜀ㄲㅣ౩ッナㅊ 聖人性乙 證ッㄱㅌ꜀ㄲㅣᵎ
　　一切無量報乙 得ㅌꜲㅣナㅣ　　　　　　　(구인 11:17-19)

It is possible for the permanence marker "ㅌ" to have originated from this bound noun. It is often the case that the source and the result of grammaticalization co-exist, which is called layering.

Alternation according to Transitivity

Typological Studies on Auxiliary Selection

According to linguistic typologists' investigations, two auxiliaries having the same meaning/function often co-exist in a given language. For instance,

in many European languages, two perfect auxiliaries combining with past participles co-exist, corresponding to *be* and *have* in English. In ancient Japanese, there were two perfect auxiliaries ぬ (*nu*) and つ (*tu*). In such cases, the alternation condition is often related to transitivity of the main verb: i.e., one of them is combined with transitive verbs, while the other with intransitive verbs. In a similar vein, in modern Korean, in order to encode the resultative aspect, *-eo iss-* is combined with intransitive verbs, whereas *-go iss-* with transitive verbs.

In some cases, other factors can participate, in addition to transitivity. Intransitive verbs are divided into unaccusatives and unergatives. One common type of alternation is that one of the auxiliaries is combined with unaccusatives, while the other with unergatives and transitives. In some cases, the former can be restricted to a more specific subset of unaccusatives—e.g., motion verbs or verbs of going, coming, leaving, and arriving. The alternation between *être* and *avoir* for encoding the so-called complex past in modern French comes close to this pattern.

Prefinal Endings -geo- and -a/eo- in the 15th century

These two endings were an issue in the grammar of middle Korean for a long time. Their meanings and the relation between them were unclear. In morphophonological terms, *-geo-* is a consonantal ending, and alternates with *-na-* after the verb *o-* "come." In contrast, *-a/eo-* is a vocalic ending, showing an alternation according to vowel harmony. Considering these morphophonological differences, these two were probably originally separate elements.

However, the opinion was presented that these two are in allomorphic relation with each other in the synchronic description of 15th century Korean, and that the alternation between these two is governed by transitivity (Ko 1980). This position is widely accepted now, also by the present author. In concrete terms, *-geo-* is combined with the copula, adjectives, and intransitive verbs, whereas *-a/eo-* is combined with transitive verbs. This is one of the most important discoveries about middle Korean grammar, and was inspired by typological research. Although this rule of alternation has a few exceptions, the number is insignificant, and most of them can be explained away from a diachronic perspective. The complete alternation pattern of the morpheme {*geo*} is as follows:

1. After the verb {*o*} "come": /*na*/ (consonantal ending) ex: *o-na-da* 'come-PERF-DEC'
2. After non-transitives: /*geo*/
   ex: *gip-geo-da* 'deep-PERF-DEC'
   * This alternant /*geo*/ is a consonantal ending. It is weakened into /ɣeo/ after the copula, /l/ or the semivowel /y/. After the weakening, it is still a consonantal ending.
   ex: -이어다 *-i-ɣeo-da* ← *i-geo-da* 'be-PERF-DEC'
       길어다 *gil-ɣeo-da* ← *gil-geo-da* 'long-PERF-DEC'
3. After transitives (vocalic ending)
   3.1. After *yang* 陽 vowels: /*a*/ ex: 보아다 *boada* ← *bo-a-da* 'see-PERF-DEC'
   3.2. After *yin* 陰 vowels: /*eo*/ ex: 주어다 *jueoda* ← *ju-eo-da* 'give-PERF-DEC'

Naturally, vocalic endings alternate according to vowel harmony. Therefore, /*a*/ of 3.1. and /*eo*/ of 3.2. are instances of vowel harmony pairs. Naturally, consonantal endings show no alternation related to vowel harmony. Therefore, /*ga*/ (discussed later) and /*geo*/ are not instances of vowel harmony pairs.

Fusion of the Morphemes {geo} and {o}

{*Geo*} is peculiar with regard to fusional pattern with other morphemes, as well as alternation patterns. In particular, the fusion with the prefinal ending {*o*} shows an interesting pattern.

1. Before converbal endings and the adnominal ending {*n*}: fused into /*ga*/. (no transitivity alternation)
   ex: ᄒᆞ가니 *hʌ-ga-ni* (←*hʌ-geo-o-ni*), ᄒᆞ간 *hʌ-ga-n* (←*hʌ-geo-o-n*)
   1.1. This /*ga*/ is a consonantal ending. weakened into /ɣa/ after /l/ or the semivowel /y/.
2. Before sentence-final endings: fused into /*gwa*/. (no transitivity alternation)
   ex: ᄒᆞ과라 *hʌ-gwa-la* (←*hʌ-geo-o-da*), ᄒᆞ관뎌 *hʌ-gwa-ndyeo* (←*ho-geo-o-ndyeo*)
   2.1. This /*gwa*/ is a consonantal ending. weakened into /ɣwa/ after /l/ or the semivowel /j/.
   ex: 알와라 *al-ɣwa-la* (← *al-gwa-la* ← *al-geo-o-da*)

This pattern of fusion is similar to that between the morphemes {geo} and {os}. That is, {geo}+{os} is realized as /gwas/. This similarity in the fusional patterns suggests that {os} is originally related to {o}, although they are distinct morphemes in the synchronic grammar of 15th century Korean.

It is interesting that the morpheme {geo} in isolation shows orderly alternation by transitivity, but when it has been fused with {o}, the fused forms show no transitivity alternation. The fused forms begin with the consonant /g/, and behave as consonantal endings in morphophonological respects. This suggests that the fusion of {geo} and {o} occurred long ago, and that the fused forms survived after -geo- and -a/eo- came to be related as allomorphs of one morpheme.

-Eoza –어사, -geoza -거사, and –goza -고사

-Eoza and -geoza are different both in meaning and the internal constitution. -eoza has the same meaning as -eoya in modern Korean. That is, it expresses necessary condition or precondition. It has slim or no temporal meaning. It is considered to be a combination of the converbal ending -eo and the particle -za, so it combines freely with either transitives or intransitives.

-Geoza has the same meaning as -goseoya or -go naseoya in modern Korean. It has temporal successive relation as its core meaning. It can be analyzed as the combination of the ending -geo- and the particle -za.[5] As it contains the allomorph -geo- of the morpheme {geo}, it can combine only with intransitives.

The counterpart of -geoza which has the same meaning/function and combines with transitives, is -goza. -Goza is the combination of the converbal ending -go and the particle -za.

The alternation pattern of these elements from a onomasiological perspective is as follows:

1. When one wants to express necessary condition or precondition: use -eoza. (no transitivity alternation)

2. When one wants to express temporal successive relation:

2.1. After intransitives: use -geoza.

2.2. After transitives: use -goza.

When you search for the counterpart which alternates by transitivity, you need to look broadly, considering the possibility that candidates other than -geo- and -a/eo- can exist. Although Youngkeun Ko (1980) is a seminal work in relation to the transitivity alternation of {geo}, it clung to the superficial form, with the result that -geoza and -eoza were presented as counterparts with regard to the transitivity alternation, which is an important flaw in this work.

Concluding remarks

This paper showed that linguistic typology and diachronic considerations including Sino-Korean materials before the introduction of hangeul can shed light onto the synchronic grammatical study of 15th century Korean. The tense-aspect system of this period can be viewed from a typological point of view, and the diachronic research on pre-15th century material can help explain the special properties of the prefinal ending -nʌ-. As linguistic typology and Sino-Korean research advance, they will suggest more insights and implications for the grammatical study of 15th century Korean.

References

Choi, Dongju. 2015. Guk-eo sisangchegye ui tongsijeok byeonhwa 국어 사상체계의 통시적 변화. Vol. 27 of Guk-eohak chongseo 국어학총서. Seoul: Taehaksa.

Ito, Hideto. 2009. "Jungse Hanguk-eo ui sije wa sang e daehayeo: Worinsekbo gwon 1, 2 jimun ui yongrye bunseok" 중세 한국어의 시제와 상에 대하여: 『월인석보』권 1, 2 지문의 용례 분석. Hyeongtaeron 형태론 11 (2): 407-24.

Ko, Young-jin. 2007. "Jejudo bangeon ui hyengyongsa e natana neun du gaji hyeonje sije e daehayeo" 제주도 방언의 형용사에 나타나는 두 가지 「현재 시제」에 대하여. Hangeul 한글 275: 77-106.

Ko, Youngkeun. 1980. "Jungse-eo ui eomi hwalyong e natana neun geo/eo ui

---

5. This combination has its own issue, in that after a prefinal ending, there is no final ending. One possibility is that -za here is fulfilling the role of a final ending.

gyoche" 중세어의 어미 활용에 나타나는 '거/어'의 교체. *Gukeohak* 국어학 9: 55-99.

Lee, Hyeon-Hee. 1995. "Sa wa za" 沙와 사. *Hanil eohak nonchong* (*Namhak I Jong-chel seonsaeng hoegap ginyeom nonchong*) 한일어학논총 (남학 이종철 선생 회갑기념논총). Seoul: Gukhakjaryowon.

Lee, Sanggeum. 2009. "Jungse Hanguk-eo hyengyongsa wa –*nʌ*- ui tonghap gwa gwanryeondoen myeot munje" 중세 한국어 형용사와 -ᄂᆞ-의 통합과 관련된 몇 문제. Unpublished paper.

Park, Jinho. 2018. "Seoneomal eomi –*nʌ*- wa –*nu*- e daehan munbeopjeok gochal: chajapyogi wa ui gwanryeonseong eul jungsim euro" 선어말어미 -ᄂᆞ- 와 –누-에 대한 문법적 고찰: 차자표기와의 관련성을 중심으로. Paper presented at the 54ᵗʰ Conference of the Society for Gugyeol, Soongsil University, Seoul, February 12.

PARK Jinho (synpjh@snu.ac.kr) is a Professor of Korean Language and Literature at Seoul National University. His research interests include linguistic typology, corpus linguistics, and diachronic morphology/syntax on which he has published several articles. Among them, his representative works are "Characteristics of the Pronominal System in Korean Viewed from a Typological Perspective" (2007), "A Diachronic Study of Delimiters in Korean" (2015), "Reconsideration of the Discontinuous Past Uses of –*eoss-eoss-*" (2015), etc.

Abstract

Historically. grammatical studies of 15ᵗʰ century Korean have been done mainly from an internal perspective. Through these efforts, many linguistic facts have been uncovered, but for future advancement, an external perspective is also needed. Linguistic typology and diachronic studies can provide such an external perspective. Linguistic typology can help describe more precisely the tense-aspect system of 15ᵗʰ century Korean, functions of tense-aspect markers, and alternation patterns of morphemes by transitivity. Sino-Korean materials of the old Korean period can help explain some peculiar uses of the prefinal ending "-*nʌ*-."

Keywords: linguistic typology, grammatical history, Sino-Korean material, tense, aspect, transitivity, permanence, perfective, imperfective, perfect, resultative, alternation, allomorphy