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문학석사 학위논문

**A New Look on
Sequential Reading of *Tasi*
in Korean:
a structural approach**

한국어 부사 ‘다시’의 연속적 해석에 대한

새로운 시각:

구조적 접근을 통해

2023 년 8 월

서울대학교 대학원

언어학과 언어학전공

박 수 빈

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이 논문을 문학석사 학위논문으로 제출함
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Abstract

A New Look on Sequential Reading of *Tasi* in Korean: a structural approach

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This thesis explores a new reading of the adverb *tasi* (again) in Korean. Traditionally, *tasi* has been understood to be ambiguous, with repetitive and restitutive readings involving the repetition of entire events or result states, respectively. However, a previously unobserved reading of *tasi* has emerged in Korean, referred to as the “Sequential Reading”. This novel interpretation describes two events in a sequential manner. The present study aims to analyze this sequential reading from a structural perspective. Previous analyses have primarily adopted a lexicalist approach, which offers a straightforward explanation for the semantic ambiguity of *tasi*. The lexicalist approach, however, fails to address Word Order Facts and fails to predict a suitable structural condition for the sequential reading. To address these limitations, this research introduces two essential conditions for the sequential reading: a syntactic condition and a semantic condition, both of which are crucial for comprehending this

phenomenon. Furthermore, the paper discusses the interaction between the reading of *tasi* and different verb types, adding further insights into the diverse uses of *tasi* in Korean.

Keyword: ambiguity of *tasi*, Sequential reading of *tasi*, repetition of causation template, repetition of event type, Corrective implication of *tasi*

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Chapter 1. Introduction

It is well known that the adverb *again* (*wieder* in German and *tasi* in Korean) has semantic ambiguity between ‘repetitive’ and ‘restitutive’ reading, particularly when used with telic predicates. For instance, the sentence in (1) shows both the repetition of the whole event (repetitive reading) and the result state (restitutive reading). In other words, the sentence in (1) has both interpretations: ‘John opened the door twice’ and ‘the door returned to the state of being opened’.

(1) John closed the door again.

- a. (John has performed the action of closing the door at least once before and) again he closed it. (*repetitive* reading)
- b. John has brought it about that the door is again in a closed state (, though he need not have closed it on any earlier occasion.) (*restitutive* reading)

(Dowty 1979)

Numerous studies have attempted to figure out the cause of ambiguity and there are two main approaches to the ambiguity: the Lexicalist approach and the Structural approach. The former considers this adverb polysemic, having two semantic structures. According to Fabricius-Hansen (1995 and 2001), in each reading, *again* carries different presuppositions and distinct semantic structures, as suggested in (2). In a repetitive reading, it presupposes the happening of an identical event. In a

restitutive reading, it presupposes the result state of a preceding event. I will discuss this point further in subsection 2.1.

- (2) a. $[[\text{again}_{\text{rep}}]](P_{\langle i,t \rangle})(e) = 1$ iff $P(e) \ \& \ \exists e' [e' < e \ \& \ P(e')]$
 $= 0$ iff $\sim P(e) \ \& \ \exists e' [e' < e \ \& \ P(e')]$
 undefined otherwise.
- b. $[[\text{again}_{\text{ctrdir}}]](P_{\langle i,t \rangle})(e)$
 $= 1$ iff $P(e) \ \& \ \exists e' [e' < e \ \& \ P_c(e') \ \& \ \text{res}_{P_c}(e') = \text{pre}_P(e)]$
 $= 0$ iff $\sim P(e) \ \& \ \exists e' [e' < e \ \& \ P_c(e') \ \& \ \text{res}_{P_c}(e') = \text{pre}_P(e)]$
 undefined otherwise.

Under the lexicalist approach, it is predicted that *again* should be ambiguous everywhere it appears. However, this is not the case. As pointed out in von Stechow (1996), Beck and Johnson (2004), and Ko (2011), *again* loses its ambiguity in a certain syntactic environment. This phenomenon, dubbed as the “Word Order Fact”, can be accounted for by the structural approach, but not the lexicalist approach. Under the structural approach, *again* has only repetitive reading, and it is syntactic structure that allows this adverb to have a restitutive reading. To be specific, the scope of *again* plays a crucial role in (dis)ambiguating its meaning. It has been proposed that whether *again* modifies νP or small clause determines its meaning. When it is attached to νP it denotes the repetition of the entire event. On the other hand, a sentence can have the restitutive reading when the adverb modifies the small clause, which denotes the result state of the event. Von Stechow (1996) suggests that, based on the lexical decomposition, the interaction of the adverb with the operator

(CAUSE and BECOME) determines the meaning of the adverb. In (3), if *again* interacts with the operator CAUSE, then it has the repetitive reading. If it modifies the operator BECOME, it has the restitutive reading. Beck and Johnson (2004) also support this approach, suggesting that double object constructions show the same.

(3) a. SpecAgrO **again** [VP Ali Baba [SC **again** [SC sesame open]] CAUSE]

repetition

restitution

b. **again** [AgrOP SpecAgrO [VP Ali Baba [SC sesame open] CAUSE]]

repetition

‘Ali Baba opened the door.’

(Von Stechow 1996)

Word Order Fact can be resolved in the structural approach. I will discuss this point in subsection 2.2.

The starting point of this research is the observation that Korean has a different interpretation of *tasi* in addition to the repetitive and restitutive reading. As illustrated in (4), the adverb is properly used in the sentence even though *tasi* repeats neither the whole event nor the result. To our surprise, even in the case where Tom had never fried the potato before, *tasi* can be used, as illustrated in (4). Rather, in (4), *tasi* describes the situation that two events ‘Tom’s baking a potato’ and ‘his frying the potato’ happened consecutively. Hereafter, I call this kind of reading **Sequential reading** of *tasi*.

(4) [Context: Tom had never fried the potato before.]

Tom-i kamca-lul kwu-wess-ko, tasi ku kamca-lul twiki-ess-ta.

Tom-Nom potato-Acc bake-Pst-and again the potato-Acc fry-Pst-Dec.

‘Tom baked the potato, and he fried the potato again.’

(Lee 2017)

In this thesis, we will also note that not all sentences with *tasi* can have the sequential reading. Instead, it appears that there are specific requirements for licensing the sequential reading. This thesis aims to identify the contexts to license the sequential reading, adopting the structural approach. In particular, I will propose two conditions for the sequential reading: one syntactic and one semantic: namely that, two events should share the theme object and denote the same kind of event. To explain this empirical generalization, I propose that sequential *tasi* modifies *v* head (CAUSE), adopting Manner Incorporation of Harley and Folli (2020) and manner/result complementarity of Beaver and Koonts-Garboden (2022). The noticeable point in the sequential reading is that the predicate can be distinct, such as ‘to bake’ and ‘to fry’. This means that sequential reading I will investigate is derived primarily from manner verbs which take little v_{CAUSE} . Furthermore, I will demonstrate how manner verbs facilitate the sharing of event types in the sequential reading.

In section 2, I consider previous research conducted within both the lexicalist approach and structural approach. Then, in section 3, I propose my primary thesis, which focuses on a structural account of the sequential reading of *tasi* in Korean. Furthermore, section 4 discusses the distinctive characteristics of *tasi* when used with consumption and creation verbs, exploring their implications for the

sequential reading. In section 5, the conclusion and implication of this research is discussed.

Chapter 2. Previous Research

2.1. Lexicalist Approach

Lexicalist approach to *again* assumes that the source of the ambiguity of *again* is located on the lexical item, not in syntax. Under this analysis, the adverb *again* is lexically ambiguous between the repetitive and restitutive reading. The sentence in (5a) can be interpreted as (5b) or (5c), depending on the presupposition. For instance, in (5b), it is presupposed that Bilbo walked to the hall before, leading to the repetitive reading. In contrast, in (5c), the sentence presupposes that Bilbo was at the hall before, resulting in the restitutive reading.

- (5) a. Bilbo walked to the hall again.
b. Bilbo walked to the hall, and he had done that before. (repetitive)
c. Bilbo walked to the hall, and he had been there before. (restitutive)

(Beck 2005)

In the repetitive reading (5a), the sentence describes the repetition of the whole event. In the restitutive reading (5b), it repeats only result state 'being in the hall'. Lexicalists predict that the position of the adverb do not trigger any difference in interpretation; wherever *again* is adjoined, it should in principle drive the semantic ambiguity. I will discuss this issue further in subsection 2.2. Before moving onto the

critical reviews, this subsection 2.1. presents major studies in favor of the lexicalist approach.

2.1.1. Fabricius-Hansen (2001)

Fabricius-Hansen (2001) is a representative study of the lexicalist approach. The arguments in Fabricius-Hansen (2001) is based on the semantic scope rather than the syntactic scope. The adverbs *wieder* and *again* have ambiguity, so the sentence in (6a) can be also interpreted as (6b) and (6c).

- (6) a. *Weihnachten war Arnim wieder im Tessin.*
Christmas be-Pst Arnim again in Tessin
'At Christmas, Arnim was in Tessin again.'
- b. *Weihnachten war Arnim WIEder im Tessin.*
Christmas be-Pst Arnim AGAIN in Tessin
'At Christmas, Arnim was (once) again in Tessin.' (repetitive)
- c. *Weihnachten war Arnim wieder im TESSIN.*
Christmas be-Pst Arnim again in TESSIN
'At Christmas, Arnim was in Tessin again.' (restitutive)

She analyzes the sentences in (6) based on FOCUS. In repetitive reading in (6b), where *wieder* has the focus, the sentence can be paraphrased as 'Christmas was another time containing an instantiation of Arnim being in Tessin'. Rather, the sentence in (6c), where the place (Tessin) has the focus, means 'Christmas contained

an instantiation of Arnim being in Tessin after having first been in Tessin and then somewhere else'. The result state 'being in Tessin' is repeated, leading the sentence to a typical restitutive reading.¹

The basic idea of Fabricius-Hansen (1995, 2001) is that the adverb *again* has both a restitutive reading, expressing "reversal of direction", and a repetitive reading. As in (7b), a restitutive reading presupposes that there happened an event with a counterdirectional predicate (P_c) before (fall-rise, open-close, for example). In this interpretation, the result state of a prior event is the starting point of an event. This analysis applies to the typically ambiguous sentence 'Mary opened the door again'. (Illustrated in (7)).

(7) a. Mary opened the door again.

b. $\lambda e. \text{open}_e(\text{the_door})(\text{Mary}) \ \& \ \exists e' [e'$

$\langle e \ \& \ \text{closed}_{e'}(\text{the_door})(\text{Mary}) \ \& \ \text{res}_{P_c}(e') = \text{pre}_P(e)]$

This analysis is based on a conceptual prerequisite, not on a syntactic prerequisite. In other words, the significant point in a restitutive reading is that the result state of an event is the starting state of another event. Fabricius-Hansen focuses on the fact that these two events indicate the reversal direction from each other, so she uses the

¹ The example provided in (6) features a simple state verb. However, the ambiguity becomes more evident when a change-of-state verb is used. Fabricius-Hansen (2001) argues that the ambiguity in (6) is dependent on the focus on *wieder*. To further distinguish between the arguments of the lexicalist approach and the structural approach, my primary focus in this study is to examine cases involving change-of-state verbs. By analyzing these specific instances, a clearer understanding of the differences between the two approaches can be achieved.

term “counterdirectional” for a restitutive reading. The representative of the counterdirectional reading is suggested in (8).

(8) (The temperature was falling all morning.) Now it is rising again.

The adverb *again* is used where there is no prior ‘temperature rising’ event. Instead, it seems that the prior ‘temperature falling’ event licenses *again* in this sentence. In other words, *again* has a semantic ambiguity between repetitive and counterdirectional reading. Each semantic structure is presented in (9).

- (9) a. $[[\text{again}_{\text{rep}}]](P_{\langle i,t \rangle})(e) = 1$ iff $P(e) \ \& \ \exists e' [e' < e \ \& \ P(e')]$
 $= 0$ iff $\sim P(e) \ \& \ \exists e' [e' < e \ \& \ P(e')]$
undefined otherwise.
- b. $[[\text{again}_{\text{ctrdir}}]](P_{\langle i,t \rangle})(e)$
 $= 1$ iff $P(e) \ \& \ \exists e' [e' < e \ \& \ P_c(e') \ \& \ \text{res}_{P_c}(e') = \text{pre}_P(e)]$
 $= 0$ iff $\sim P(e) \ \& \ \exists e' [e' < e \ \& \ P_c(e') \ \& \ \text{res}_{P_c}(e') = \text{pre}_P(e)]$
undefined otherwise.

Then, the concepts of counterdirectionality and semantics of the sentence in (8) are as followings:

- (10) predicate P: $\lambda e. \text{rise}_e(\text{the_temp})$
 counterdirectional predicate P_c : $\lambda e. \text{fall}_e(\text{the_temp})$
 possible prestates of P, pre_P : $\lambda s. \text{low}_s(\text{the_temp})$
 possible result states of P, res_P : $\lambda s. \text{high}_s(\text{the_temp})$

- (11) a. The temperature is rising again.
 b. $\lambda e. \text{rise}_e(\text{the_temp}) \ \& \ \exists e' [e' < e \ \& \ \text{fall}_{e'}(\text{the_temp}) \ \& \ \text{res}_{P_c}(e') = \text{pre}_P(e)]$

To be specific, the sentence in (8) is true if and only if there is a prior ‘temperature falling’ event and the result state of this falling event corresponds to the prestate of a ‘temperature rising’ event.

2.1.2. Lee (2017)

Lee (2017) considers the sequential reading in (12) as the *pseudo-repetitive* reading, suggesting hypernymic *tasi* and antonymic *tasi*.

- (12) [Context: Tom had never fried the potato before.]
Tom-i kamca-lul kwu-wess-ko, tasi ku kamca-lul twiki-ess-ta.
 Tom-Nom potato-Acc bake-Pst-and, again the potato-Acc fry-Pst-Dec.
 ‘Tom baked the potato, and he fried the potato again.’

It should be noted that in (12) the predicate in the assertion is different from the predicate in the presupposition. However, they are not totally different. The predicate *kwup-* ‘bake’ and *twiki-* ‘fry’ is a kind of cooking. Then, he suggests an account for the sequential reading, as in (13), and the sequential reading in (12) can be represented as in (14).

$$(13) \quad [[tasi_{sis}]](P_{\langle i,t \rangle})(e) = 1 \text{ iff } P(e) \ \& \ \exists e'[e' < e \ \& \ P_{sis}(e')] \\ = 0 \text{ iff } \sim P(e) \ \& \ \exists e'[e' < e \ \& \ P_{sis}(e')] \\ \text{undefined otherwise.}$$

(P_{sis} is a sister predicate of P)²

(14) a. *Tom-i ku kamca-lul tasi_{hyper} twiki-ess-ta.*

Tom-Nom the potato-Acc again fry-Pst-Dec.

‘Tom fried the potato again.’

b. $P = \lambda e. \text{fry}_e(\text{the_potato})(\text{Tom})$

c. The pseudo-repetitive reading of *Tom – i kamca –*

lul tasi_{sis} twiki – ess – ta ‘Tom fried the potato again.’

$= \lambda e. \text{fry}_e(\text{the_potato})(\text{Tom}) \ \& \ \exists e'[e' < e \ \& \ P_{sis}(e')]$

However, he attempts to propose more general account by unifying the pseudo-repetitive reading with the repetitive reading. According to his analysis, the adverb has the repetitive reading in a hypernymic analysis in (15) and has the

² In Lee (2017), regarding this sisterhood, he just mentions that P_{sis} can be specified by any sister predicate of P. Based on WordNet, when two words have a common hyponym, he considers them in the sisterhood.

restitutive reading in an antonymic analysis in (17). The sisterhood of the predicates in the pseudo-repetitive reading is automatically induced in the hypernymic analysis.³

$$(15) \quad [tasi_{hyper}]](P_{\langle i,t \rangle})(e) = 1 \text{ iff } P(e) \ \& \ \exists e' [e' < e \ \& \ P_{hyper}(e')] \\ = 0 \text{ iff } \sim P(e) \ \& \ \exists e' [e' < e \ \& \ P_{hyper}(e')]$$

Then, with the hypernymic reading in (15), the typical repetitive reading and pseudo-repetitive reading can be explained. The sentence in (14a) can be interpreted as repetitive and pseudo-repetitive. In repetitive reading, the sentence means that ‘Tom had fried the potato before, and he fried it later’. In pseudo-repetitive reading, it means ‘Tom had baked the potato before, and then fried it later’. The hypernymic analysis of the sentence in (14a) is suggested in (16).

- (16) a. *Tom-i ku kamca-lul tasi_{hyper} twiki-ess-ta.*
 Tom-Nom the potato-Acc again fry-Pst-Dec.
 ‘Tom fried the potato again.’
- b. $P = \lambda e. \text{fry}_e(\text{the_potato})(\text{Tom})$
- c. $P_{hyper} = \lambda e. \text{cook}_e(\text{the_potato})(\text{Tom})$
- d. The pseudo-repetitive reading of *Tom – i kamca – lul tasi_{sis} twiki – ess – ta* ‘Tom fried the potato again.’
 $= \lambda e. \text{fry}_e(\text{the_potato})(\text{Tom}) \ \& \ \exists e' [e' < e \ \& \ \text{cook}_{e'}(\text{the_potato})(\text{Tom})]$

³ The hypernym-hyponym relation normally holds between words, but Lee (2017) suggests this relation also holds between sentences. The sentence ‘Tom fried the potato’ is included in the statement ‘Tom cooked the potato’. Therefore, Lee assumes that it is plausible to say that the latter is hypernym of the former.

With respect to the restitutive reading, it is important that the predicate in the assertion is the antonym of the one in the presupposition (*open* and *close*, for example). Based on this relation, he proposes the antonymic reading for the restitutive reading.

$$(17) \quad [[tasi_{anto}]](P_{\langle i,t \rangle})(e) = 1 \text{ iff } P(e) \ \& \ \exists e' [e' < e \ \& \ C(P_{anto})(e')] \\ = 0 \text{ iff } \sim P(e) \ \& \ \exists e' [e' < e \ \& \ C(P_{anto})(e')]$$

In (17), C is the function that introduces P_{anto} and returns the change-of-state part in the meaning of P_{anto} . The antonymic analysis of the sentence ‘Tom opened the door again’ in Korean is demonstrated in (18).

- (18) a. *Tom-i mwun-ul tasi_{anto} yel-ess-ta.*
 Tom-Nom door-Acc again open-Pst-Dec.
 ‘Tom opened the door again.’
- b. $P = \lambda e. \text{open}_e(\text{the_door})(\text{Tom})$
- c. $C(P_{anto}) = \lambda e. \text{become} - \text{closed}_e(\text{the_door})$
- d. The pseudo-repetitive reading of *Tom-i mwun-ul tasi_{anto} yel-ess-ta*
 ‘Tom opened the door again’
 $= \lambda e. \text{open}_e(\text{the_door})(\text{Tom}) \ \& \ \exists e' [e' < e \ \& \ \text{become} - \text{closed}_{e'}(\text{the_door})]$

2.1.3. Lee (2018)

Lee (2018) capitalizes on the intentionality and purpose implied in the sequential reading of *tasi*. Additionally, he revises the pseudo-repetitive reading proposed by Lee (2017) and introduces the concept of the purpose-repetitive reading. This revised reading helps to explain certain data where there is no hypernymic relation between predicates, yet the sequential reading is still possible. This phenomenon is exemplified in (19).

- (19) *Bill-i mantwu-lul kacye-wass-ko,*
Bill-NOM dumpling-Acc bring-Pst-and,
(Bill-i) tasi kamca-lul salm-ass-ta.
(Bill-Nom) again potato-Acc boil-Pst-Dec.

‘Bill brought the dumpling, and Bill boiled the potato again.’

According to his argument, the agent of two events ‘bringing a dumpling’ and ‘boiling the dumpling’ has the same purpose for both events; *to feed his child*, for example.⁴ In section 3.1, I will present a survey to examine whether this sentence can be regarded as the sequential reading. According to Lee (2018), the crucial difference between a repetitive reading and the sequential reading of *tasi* lies in the presupposition. A repetitive reading should presuppose the same event as the

⁴ I disagree with his judgement, however. I find it challenging to categorize this reading as the sequential reading of *tasi* since *tasi* in (19) is considered to have a repetitive meaning rather than a purpose-repetitive reading.

assertation. On the other hand, in the sequential reading of *tasi*, the sentence does not presuppose such an event.⁵

It is suggested in his analysis that *tasi* could be interpreted as ‘and then’ in (19), describing two events in series. However, it is awkward to some speakers to read the sentence as ‘and then’ reading, suggested in (20). In regard to this point, the so-called purpose-repetitive sentences presented Lee (2018) cannot be considered the same as the sequential reading. (See Chapter 3 for details.)

(20) (= (19)) [Bill had never boiled a potato before, and the potato was raw and had not been boiled.]

Bill-i mantwu-lul kacye-wass-ko, Bill-i tasi kamca-lul salm-ass-ta.

‘Bill brought the dumpling, and Bill boiled the potato again.’

‘*And then*’ reading: Bill brought the dumpling, and then Bill boiled the potato.

2.1.4. Ryu (2018)

Ryu (2018) analyzes the semantic ambiguity of *tasi* based on presuppositions. He suggests the sequential reading for the sequential form of *tasi*. He proposes that, based on Heim and Kratzer (1998), three meanings of the adverb *tasi* again can be distinguished in terms of the presupposition. In repetitive reading,

⁵ However, contrary to her analysis, *tasi* is more naturally interpreted as indicating a prior event ‘Bill boiling the potato’ in the sentence of (19). It means that the sentence in (19) can be interpreted as ‘Bill has performed the action of boiling the potato before, and again he boiled it (in the interim he brought the dumpling).’ Therefore, this case can be integrated into the repetitive *tasi*. I will discuss it further in Chapter 3.

tasi presupposes the event indicated by the predicate used with *tasi*. In restitutive/counterdirectional reading, it presupposes the counterdirectionality. The semantic interpretation of each reading is presented in (21).

(21) *John-i tasi ku mwun-ul tad-ass-ta.*

‘John closed the door again.’

a. *Repetitive reading*: ‘the same has happened before.’

$$\lambda e: \lambda y \exists e' [e' < e \wedge \text{close}_{e'}(\text{the_door})(y)]. \text{close}_e(\text{the_door})(\text{John})$$

b. *Restitutive/counterdirectional reading*: ‘the reverse has happened before.’

$$\lambda e: \lambda y \exists e' [e' < e \wedge \text{open}_{e'}(\text{the_door})(y) \wedge \text{RES}_{\text{open}_{e'}} = \text{PRE}_{\text{close}_e}]$$

On the other hand, the sequential reading implies that there are two events: an event and another event whose prestate is the result state of the prior event. Then, its meaning is as following in (22):

(22) *Sequential reading*: ‘the other has happened before.’

$$\lambda P. \lambda x. \lambda e: \lambda y. \exists e' [e' < e \wedge \bar{P}(y)(e') \wedge \text{RES}_{\bar{P}}(e') = \text{PRE}_P(e)]. P(x)(e)$$

In the sequential reading, *tasi* presupposes the event described with the verb that is not P (\bar{P}). Furthermore, the result state of this event is identical with the event described by P . Then, the presupposition of each reading can be suggested as in (23).

(23) $[[tasi]] = \lambda P. \lambda x. \lambda Q. \lambda e: \lambda y \exists e' [e' < e \wedge Q(y)(e')]. P(x)(e)$

a. The affirmation of *tasi*: $\lambda P. \lambda x. \lambda e. P(x)(e)$

b. The presupposition of *tasi*: $\lambda Q. \lambda e: \lambda y \exists e' [e' < e \wedge Q(y)(e')]$

Repetitive: $Q = P$

Restitutive: $Q = P_c \wedge RES_{Qe'} = PRE_{pe}$

Sequential: $Q \neq P_c \wedge RES_{Qe'} = PRE_{pe}$

Here, P and Q is the *property* of an event, x and y *individual*, e and e' *eventuality*, and < shows the total temporal precedence. P and P_c has the counterdirectional property from each other. According to his proposal, the sentence in (4) (the sequential reading of *tasi*) can be analyzed as in (24).

(24) 'Tom baked a potato and again fried it' (= (4))

Tom-i kamca-lul kwu-wess-ko, tasi ku kamca-lul thwiki-ess-ta.

$= \lambda e: \exists e' [e' < \overline{fry}_{e'}(\text{potato})(\text{Tom}). fry_e(\text{potato})(\text{Tom})]$

According to his perspective, he argues that there are no specific syntactic or structural constraints imposed on the sequential reading. Instead, the availability of the sequential reading is determined solely by the presence of two predicates (P and \bar{P}) and the temporal precedence established between these two predicates. In other words, as long as these conditions are met, the sequential reading can be realized.

2.2. Structural Approach

According to the structural approach, *again* is not lexically ambiguous, having only the repetitive meaning. The ambiguity relies not on the lexical item but on the structural position the adverb has: the whole event or just the result state. Examples in (25) and (26) provide a representative analysis of this approach. The sentence in (25a) can mean either (25b) or (25c). In (25b), what is repeated is the whole event of ‘Sally hammering the metal flat’. In (25c), the result state of ‘the metal being flat’ is repeated. If it modifies the whole event, it takes the repetitive reading in (25b); when *again* modifies the result state, it has the restitutive reading in (25c).

- (25) a. Sally hammered the metal flat again.
b. Sally hammered the metal flat, and that had happened before.
c. Sally hammered the metal flat, and the metal had been flat before.

Under the structural analysis, when *again* is attached to the verbal projection (following von Stechow’s analysis (1996)), it turned out to denote repetition of the main event. Otherwise, when *again* modifies a small clause, which denotes the result state of the event, it means a restitution. This is described in (26), respectively.

- (26) a. [VP [VP Sally [V’ hammered [SC the metal flat]]] **again**]
b. [VP Sally [V’ hammered [SC [SC the metal flat] **again**]]]

2.2.1. Von Stechow (1996)

There was a challenge on the structural approach that a restitutive reading of *again* is available when the verb seems to have no result phrase such as *open*. Von Stechow (1996) resolves this problem by adopting “Lexical Decomposition”. He decomposes the transitive verb *open* into the adjective ‘open’ and a CAUSE/BECOME operator. According to him, *again* in (27a) has two proper adjunction sites as in (27b) (the whole VP) or (27c) (the small clause). This brings about the ambiguity between the repetitive reading and the restitutive reading of *again*. When *again* is merged higher than CAUSE and BECOME, then it modifies the whole event, and it has the repetition meaning (27b). On the other hand, when *again* is merged lower than CAUSE and BECOME, as in (27c), it has the restitutive meaning.

- (27) a. Sally opened the door again.
b. [_{VP} Sally CAUSE [_{VP} BECOME [_{SC} the door open]] **again**] (repetitive)
c. [_{VP} Sally CAUSE [_{VP} BECOME [_{SC} the door open **again**]]] (restitutive)

Nevertheless, as described in (28), *wieder* ‘again’ does not show the semantic ambiguity in a certain structural environment in German (as well as in English⁶). Von Stechow’s explanation is that in German the direct object undergoes

⁶ Structural explanation can straightforwardly extend to English. ‘*Again*’ shows the ambiguity in (ia) since it can adjoin to the small clause (restitutive reading) or to the VP (repetitive reading). On the other hand, in (ib), *again* can be adjoined above VP and CAUSE.

- i. a. Thilo opened the door again. (repetitive and restitutive)

the obligatory movement to Spec,vP (SpecAgrO, for von Stechow). Thus, if *wieder* follows the direct object, the possible position of it can be either above or below BECOME/CAUSE, as in (28a). When *wieder* precedes of the direct object, however, it can have a repetitive reading only. This is because this adverb should be attached higher than vP and it must take scope over the BECOME/CAUSE, as in (28b).

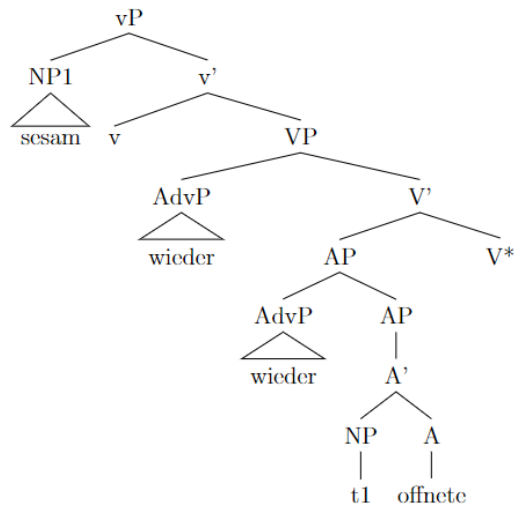
b. Thilo again opened the door.

(repetitive reading only)

(Beck and Johnson 2004)

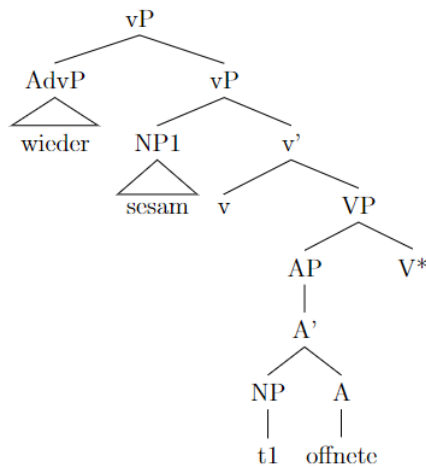
(28) a. 'Ali Baba sesam wieder öffnet.' (*Ali Baba opened the door again*)

Ali Baba the door again open



b. 'Ali Baba wieder sesam öffnet.' (*Ali Baba again opened the door*)

Ali Baba again the door open



The primary point in his analysis is that the interaction of the operator CAUSE or BECOME and *wieder* is a decisive factor in the ambiguity and this fact can be also observed in the sentences with unergative and unaccusative verbs. Unaccusative verbs show the ambiguity with respect to the interpretation of *again*

but unergative verbs do not. The position of *wieder* disambiguates its meaning in the sentences with unaccusative verbs, as in (29). In contrast to unaccusative verbs, unergative verbs have only repetitive reading (30), resulting from the fact that unergatives do not have BECOME operator so the interaction of this operator and the scope of *wieder* cannot occur, as illustrated in (31).

- (29) a. der Briefträger **wieder** kam. (repetitive/ restitutive)

the postman-Nom again come-Pst.

‘The postman again came.’

- b. **wieder** der Briefträger kam. (only repetitive)

again the postman-Nom come-Pst.

‘Again the postman came.’

- (30) a. Irene wieder geigt (repetitive)

Irene again play-the-violin-Pst.

‘Irene again played the violin.’

- b. wieder Irene geigt (repetitive)

again Irene play-the-violin-Pst.

‘again Irene played the violin.’

- (31) a. [VoiceP Irene [VP wieder geig-] agent]

agent (Irene)(e) & again (violin-playing)(e)

- b. wieder [VoiceP Irene [VP wieder geig-] agent]

again(λe .agent(Irene)(e) & violin-playing(e))(e)

Then, the main point of von Stechow (1996) is that there is a small clause inside *vP* and the ambiguity of the adverb *wieder* and *again* comes from the position where the adverb is attached within the verbal projection.

2.2.2. Beck and Johnson (2004)

Beck and Johnson (2004) extend von Stechow's analysis on *wieder* (*again*) into ditransitive constructions in English. They argue that NP + PP construction ((32a)) and double object construction ((32b)) have a different underlying structure (cf. Baker (1988) and Larson (1988), etc.). Green (1974) argues that double object frame has a possession component to its meaning or HAVE while the NP + PP frame does not need to have this component. Green concludes that there is a HAVE relation in every double object construction. Thus, each sentence can be expressed as the sentences in (33).

- (32) a. Thilo shinned the ball to Satoshi.
b. Thilo shinned Satoshi the ball.

(Beck and Johnson 2004)

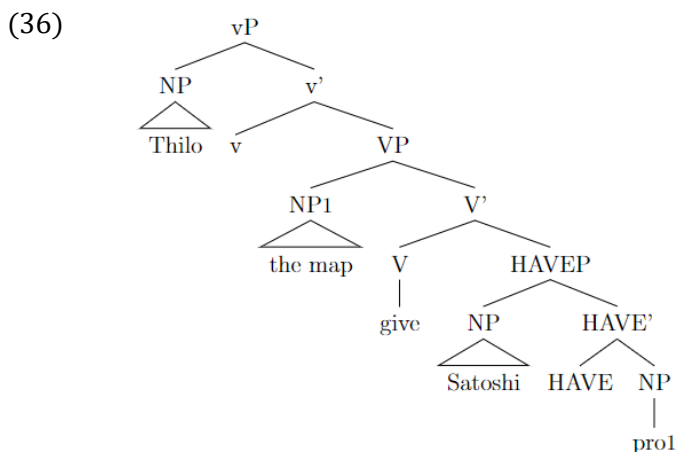
- (33) a. Thilo's shinning [the ball] CAUSE [BECOME [the ball is AT Satoshi]]
b. Thilo's shinning [the ball] CAUSE [BECOME [Satoshi HAVE the ball]]

Based on this analysis, they observe the ambiguity in the double object construction. (34a) is ambiguous between the repetitive reading in (34a) and restitutive reading in (34b).

- (34) a. Thilo gave Satoshi the map again.
 b. Thilo gave Satoshi the map, and that had happened before.
 c. Thilo gave Satoshi the map, and Satoshi had had the map before.

According to the structural analysis, the ambiguity depends on the fact that *again* operates on two predicates of events, as in (35). Specifically, for the restitutive reading of *again*, it modifies a constituent denoting a result state in (35b). Therefore, Beck and Johnson provide a structure of the sentence in (34a) as depicted in (36).

- (35) a. $\lambda e. \text{Thilo_gave_Satoshi_the_map}(e)$
 b. $\lambda e. \text{have}_e(\text{the_map})(\text{Satoshi})$



Thus, Beck and Johnson argue that the double object construction has a small clause called HAVEP and it is related to the resultative construction.⁷ Therefore, the ambiguity of *again* relies on whether *again* modifies *vP* or HAVEP. When *again* is adjoined to *vP*, as in (37), it derives the repetitive reading; and when it modifies the small clause (HAVEP), as in (38), it results in the restitutive reading.

(37) [*vP* [*Thilo* [*VP* the map₁ [*V'* give [*HAVEP* [*Satoshi* HAVE pro₁]]] *again*]]
 ‘Once more, Thilo’s giving of the map causes Satoshi to come to have the map.’

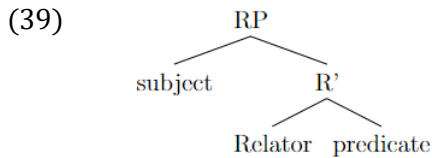
(38) *Thilo* [*VP* the map₁ [*V'* give [*HAVEP* [*Satoshi* HAVE pro₁] *again*]]]
 ‘Thilo’s giving of the map caused Satoshi to come to once more have the map.’

⁷ Von Stechow (1995) provides a principle of Small Clause: the Small Clause is a property of events (type $\langle i, t \rangle$ and the verb has type $\langle e, \langle e, \langle i, t \rangle \rangle \rangle$, requiring an individual object. Under the principle in (i), the double object construction can be analyzed as in (ii). See von Stechow (1995) for more details.

- i. If $\alpha = [\gamma V \beta \text{smallclause}]$ and β' is of type $\langle i, t \rangle$ and γ' is of type $\langle e, \dots \langle e, \langle i, t \rangle \rangle \rangle$ (an n – place predicate), then $\alpha' = \lambda x_1 \dots x_n \lambda e. \gamma' e(x_1) \dots (x_n) \& \exists e' [\text{BECOME}_{e'}(\beta') \& \text{CAUSE}(e')(e)]$.
- ii. a. Thilo have Satoshi the map.
 b. [*gave* [*HAVEP* Satoshi HAVE pro₁]]:
 $\lambda y \lambda x \lambda e [\text{give}_e(y)(x) \& \exists e' [\text{BECOME}_{e'}(\lambda e''. \text{have}_{e''}(x_1)(\text{Satoshi})) \& \text{CAUSE}(e')(e)]]$
 c. [*Thilo* [[*the map*] [*gave* [*HAVEP* Satoshi HAVE pro₁]]]]:
 $\lambda e [\text{give}_e(\text{the_map})(\text{Thilo}) \& \exists e' [\text{BECOME}_{e'}(\lambda e''. \text{have}_{e''}(\text{the_map})(\text{Satoshi})) \& \text{CAUSE}(e')(e)]]$

2.2.3. Ko (2011)

In Ko (2011), she observes several restrictions of scrambling, mainly in Korean and Japanese, adopting inherent phrase (Den Dikken, 2007a) and cyclic linearization (Fox and Pesetsky, 2005a). According to Ko (2011), the domain-mate element cannot separate two elements in the edge position of an inherent phase: *Edge Effect*. Inherent phrase refers to a predication with subject-predicate structure and this predication is related by a relator, as in (39) (Den Dikken, 2007a). Then, based on the Edge Generalization in (40), I can predict that elements externally merged as the subject of some predication domain cannot be separated by the same domain-internal element.



(40) **Edge Generalization in the predicate domain**

If X and Y are dominated by a specifier γP of a predication domain αP , X and Y cannot be separated by a αP -internal element Z that is not dominated by γP .

Ko (2011) suggests that edge effects apply to resultative constructions in Korean. The subject of a result phrase (RP) in Korean can be marked either the nominative case or the accusative case. For the sake of space, I do not mention all

arguments and data of Ko (2011) here. According to Ko (2011), Korean resultatives have the structures as in (41), featuring a nominative-marked and an accusative-marked resultative subject, respectively. (See also Shim and Den Dikken 2007)

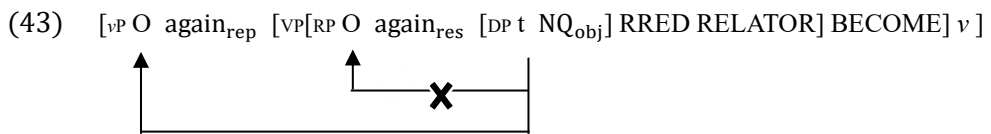
- (41) a. [_vP S [VP [resultative DP-NOM_i predicate-*key*] [_v' (pro_i) V]]]
 b. [_vP S [VP [resultative pro_i predicate-*key*] [_v' DP-ACC_i V]]]

According to the Edge Effect, Ko observes that the nominative-marked resultative subject cannot be separated by the resultative predicate ‘-*key*’, as in (42b). The accusative-marked resultative subject, on the other hand, can be separated by the resultative predicate, as in (42c).

(42) **Edge Effect in Korean resultative predication**

- a. Chelswu-nun koyangi-ka/-lul sey-mali cwuk-key ttayli-ess-ta.
 Chelswu-TOP cat-Nom/Acc 3-CL die-Res beat-Pst-Dec.
 ‘Chelswu beat three cats dead.’
- b. *Chelswu-nun **koyangi-ka** cwuk-key **sey-mali** ttayli-ess-ta.
 Chelswu-TOP cat-Nom die-Res 3-CL beat-Pst-Dec.
- c. Chelswu-nun **koyangi-lul** cwuk-key **sey-mali** ttayli-ess-ta.
 Chelswu-TOP cat-Acc die-Res 3-CL beat-Pst-Dec.
 (TOP = topic marker, Res = resultative predication, CL = classifier)

Ko argues that semantic (dis-)ambiguity of *tasi* (*again*) in Korean does support the syntactic approach to the adverb *tasi*. Under the structural approach, two distinct meaning of *tasi* is caused from two structural position of *tasi*. As discussed above, the repetitive *again* and *tasi* is merged to vP while the restitutive *again* and *tasi* is merged to a result phrase (RP). In (43), the object and numeral quantifier can be separated by the repetitive *tasi*, but not the restitutive *tasi*. This is because the restitutive *tasi* is attached to the result state thus it is the domain-mate element with them. Therefore, the sentence in (44a) can have the ambiguity, but one in (44b) can have only the repetitive reading with the adverb positioned between the object and the numeral quantifier.



(44) a. *Sansathay-ka tonggwul-ul two-kay tasi mak-ass-ta.*
avalanche-NOM cave-ACC 2-CL again close-Pst-Dec.
‘Avalanche closed two caves again.’ (repetitive, restitutive)

b. *Sansathay-ka tonggwul-ul tasi two-kay makassta.*
avalanche-NOM cave-ACC again 2-CL close-Pst-Dec.
‘Avalanche closed two caves again.’ (repetitive, #restitutive)

2.3. Comments on Previous Studies

In the lexicalist approach, the ambiguity of *again* arises from two prerequisites: a lexical condition related to the existence of the counterdirectional form of *again*, and a conceptual condition where a change-of-state predicate can be modified by the counterdirectional *again*. Conversely, the structural approach requires a structural condition involving the availability of a resulting state for *again* to adjoin to.⁸ Both analyses have their attractions, but for both this comes with a cost.

On the lexicalist approach, there is no requirement to structurally decompose a predicate. A simpler generalization can be made without the structural factor playing a role in the ambiguity of *again*. The crucial factor for the restitutive interpretation lies in the existence of an appropriate counterdirectional predicate. However, despite the ease and simplicity of this generalization, there are evident counterexamples that challenge the lexicalist analysis. As previously mentioned, the ambiguity disappears when a specific structure is provided. In German, when *wieder*

⁸ According to Rapp and von Stechow (1999), there is a lexical property of an adverb whether it can look inside the decomposition structure. This is visibility parameter, as elaborated in (i). Based on this fact, they explain the difference between *wieder* (again) and *erneut* (anew). *Erneut* does not have the ambiguity as described in (ii). The difference relies on the fact that *erneut* cannot be accessible to AP in decomposition structure since it does not have a phonetically overt head. On the other hand, *wieder* can access both an overt and phonetically empty result state.

i. **Visibility Parameter for decomposition adverb (D-adverb)**

A D-adverb can/cannot attach to a phrase with a phonetically empty head.

- ii. a. Maria hat die Tuer *wieder* geöffnet. (repetitive and restitutive)
b. Maria hat die Tuer *erneut* geöffnet. (repetitive only)
'Maria opened the door again.'

follows the direct object, as shown in (45a), it becomes ambiguous. On the contrary, when it precedes the object, as seen in (45b), it only conveys a repetitive meaning without the restitutive interpretation. Consequently, the German data clearly illustrate that a thorough analysis of *again* heavily depends on syntactic structure, in contrast to the stance of the lexicalist approach. The conceptual availability proposed by Fabricius-Hansen (1995 and 2001) is not sufficient to explain why the sentence in (45b) fails to exhibit the ambiguity.

(45) (=28)

a. Alibaba sesam *wieder* öffnete. (repetitive and restitutive)

‘Alibaba opened the door again.’

b. Ali Baba *wieder* sesam öffnete.’ (repetitive only)

‘Alibaba again opened the door.’

The structural approach, which I am advocating in this paper, asserts that the ambiguity of *again* depends on the constituent it modifies. It carries only a repetitive meaning and what is repeated causes the ambiguity. Under the structural approach, we can provide more plausible account for the word order fact, as illustrated by the German example in (45).

Regarding the pseudo-repetitive reading and purpose-repetitive reading proposed in Lee (2017 and 2018) respectively, it is not clear wonder whether these readings can be genuinely categorized into the sequential reading of *tasi*. According to Lee’ analysis, the sentences license the pseudo-repetitive reading if and only if two predicates in events share a hypernym. In the sentence in (45) (= (16)), the

predicates ‘bake’ and ‘fry’ have a common hypernym ‘cook’, thus resulting in the pseudo-repetitive reading. However, the hyponymy relationship between predicates alone is not sufficient to create a pseudo-repetitive reading (the sequential reading in my terminology). The sentence in (47) cannot be read as pseudo-repetitive reading even though the predicates (‘drink’ and ‘eat’) bears a hyponymy (‘consume’ according to WordNet). I will discuss it further in Chapter 3. Thus, I assume there must be another condition, beyond the hyponymy, to achieve the sequential reading of *tasi*.

(46) [Context: Tom had never fried the potato before.]

Tom-i kamca-lul kwu-wess-ko, tasi ku kamca-lul twiki-ess-ta.

‘Tom baked the potato, and he fried the potato again.’

(47) *Yoona-ka mwul-ul masi-ess-ko, tasi sakwa-lul mek-ess-ta.*

Yoona-Nom water-Acc drink-Pst-and, again apple-Acc eat-Pst-Dec.

‘Yoona drank a cup of water and again Yoona ate an apple.’

In Lee (2018), the proposal on the purpose-repetitive reading also faces challenges if it is considered the same as the sequential reading. The sentence he provides (repeated in (48)) is typically understood as a simple repetitive reading. Even with the context provided, the sentence sounds unnatural when used with *tasi*. If sharing a purpose is significant and necessary to be the sequential reading, it is in fact quite crucial to define what constitutes a purpose. Moreover, determining the extent to which two events can be said to share a common purpose becomes

complicated. In principle, two events can be assigned the same general purposes (‘to live’ or ‘to celebrate an anniversary’, for example) even though they are entirely unrelated. For instance, the sentence in (49) has the same purpose (to celebrate somebody’s birthday), yet it cannot license as a sequential reading.

(48) [Context: Sugyung had never boiled a potato before, and the potato was raw.]

Sugyung-ika mantwu-lul kacye-wass-ko, tasi kamca-lul salm-ass-ta.

Sugyung-Nom dumpling-Acc bring-Pst-and, again potato-Acc boil-Pst-Dec.

‘Sugyung brought a dumpling, and she boiled a potato again.’

(49) *Rahui-ka kkoch-ul sass-ko, tasi pyenci-lul ssu-ess-ta.*

Rahui-Nom flower-Acc buy-Pst-and, again letter-Acc write-Pst-Dec.

‘Rahui bought a flower, and she wrote a letter again.’

To summarize, the lexicalist approach does not provide a satisfactory explanation for the sequential reading of *tasi* in Korean, and there have not been proposals for the sequential reading within the structural approach. Therefore, in Chapter 3, I will establish the conditions for the sequential reading within the framework of the structural approach. In the subsection 3.1, I will introduce the survey I conducted to ensure accurate judgements regarding the sequential reading. This subsection will also further scrutinize the examples and proposals put forth by Lee (2017 and 2018). In the subsection 3.2, based on the result of this survey, I proposes two conditions for achieving the sequential reading of *tasi*. The subsection

3.3 briefly discusses crosslinguistic variations of the sequential reading among English, German, and Japanese.

Chapter 3.

A New Perspective on Sequential Reading of *Tasi*

This thesis aims to investigate a new reading of *tasi* observed in Korean: the sequential reading. As for the sequential reading of *tasi*, consider the sentence in (4), repeated in (50) below.

(50) [Context: Tom had never fried the potato before.]

Tom-i kamca-lul ku-wess-ko, tasi ku kamca-lul twiki-ess-ta.

Tom-Nom potato-Acc bake-Pst-and again the potato-Acc fry-Pst-Dec.

‘Tom baked the potato, and again fried the potato.’

(Lee 2017)

In this sentence, *tasi* can be used even when Tom had never fried the potato before. Thus, for this sentence, neither does *tasi* modify the whole event as in the repetitive reading, nor the result state as in the restitutive reading. Instead, *tasi* introduces two consecutive events, resulting in the sequential reading. Based on Ryu (2018), the sentence in (50) can be analyzed as shown in (51). According to his proposal, there was an event where ‘*Tom baked the potato*’, followed by another event where ‘*Tom fried the potato*’.

(51) $\lambda e: \exists e' \wedge \overline{\text{fry}}_{e'}(\text{bake})(\text{Tom}). \text{fry}_e(\text{potato})(\text{Tom})$ (simplified)

Ryu (2018) argues that sentences can have the sequential reading if and only if there is a time difference between the events described. According to this proposal, it is predicted that the sentence in (52) should have the sequential reading. However, the fact that it is semantically unacceptable shows that the temporal precedence does not guarantee the sequential reading. Rather, two events described need to share a common property, as shown in (50).

- (52) #*Mikuk-eyse cicin-i ilena-ss-ko,*
 USA-Loc Earthquake-Nom occur-Pst-and,
 Tom-i tasi kamca-lul ku-wess-ta.
 Tom-Nom again potato bake-Pst-Dec.
 ‘Earthquake had occurred in USA, and Tom baked a potato again.’

Despite several proposals from a lexicalist approach, such as those by Lee (2017 and 2018), Ryu (2018), and others, none of them provide a proper explanation for this overgeneralization problem with the sequential reading. In this chapter, I will address limitations of previous suggestions and propose conditions for the sequential reading of *tasi* from a structural approach. In section 3.1, I will present the survey I conducted to demonstrate that the proposals of Lee (2017 and 2018) do not account for the sequential reading but rather fall under the typical repetitive reading. In section 3.2, I will discuss two conditions necessary for the sequential reading. First, I will investigate the structural aspects of the sequential reading of *tasi* in section 3.2.1. Second, in section 3.2.2, I will discuss the semantic requirements of the sequential reading.

3.1. Survey Description

Lexicalist approach has proposed several analyses for the sequential reading of *tasi*. In this subsection, I especially focus on why the pseudo-repetitive reading and purpose-repetitive sentence, suggested in Lee (2017 and 2018, respectively), cannot be read as the sequential reading. I conducted a survey to identify the interpretation of these kinds of reading of *tasi*; whether native Korean speakers accept the sequential reading in the sentences like (53).

(53) *Bill-i mantwu-lul kacye-wa-ss-ko, tasi kamca-lul salm-ass-ta.*

Bill-Nom dumpling-Acc bring-Pst-and, again potato-Acc boil-Pst-Dec.

‘Bill brought the dumpling, and Bill boiled the potato again.’

3.1.1. Survey Items

I conducted a survey to investigate whether the adverb *tasi* is interpreted as sequential reading in a sentence, such as (53). In this survey, 12 items were presented to 70 Korean native speakers. I asked the participants to decide whether the sentence is interpreted as sequential reading or not. For each item, the participants were led to choose one of three choices. First, a sentence can have the sequential reading, thus an event had happened, and another event happened in sequence. Second, the sentence cannot have the sequential reading. Last, the sentence does not make sense at all. The survey items are provided in (54). I also included some sentences using ‘tto’ and some sentences without any adverb in this survey.

(54) **Survey Items**

- a. *Yoona-ka mwul-ul masi-ess-ko, tasi sakwa-lul mek-ess-ta.*
Yoona-Nom water-Acc drink-Pst-and, again apple-Acc eat-Pst-Dec.
‘Yoona drank a cup of water and again Yoona ate an apple.’
- b. *Tom-i kamca-lul kwu-wess-ko, tasi ku kamca-lul twiki-ess-ta.*
Tom-Nom potato-Acc bake-Pst-and, again the potato-Acc fry-Pst-Dec.
‘Tom baked a potato and again he fried the potato.’
- c. *Jeonghyeon-ika angyeong-ul ssu-ess-ko,*
Jeonghyeon-Nom glasses-Acc wear-Pst-and,
tasi paci-lul ip-ess-ta.
again pants-Acc wear-Pst-Dec.
‘Jeonghyeon wore glasses, and she wore pants again.’
- d. *Minsu-ka lamyen-ul kkulh-ye mek-ess-ko,*
Minsu-Nom Ramyeon-Acc boil-LK eat-Pst-and,
tasi koki-lul kwuwe mek-ess-ta.
again meat-Acc bake-LK eat-Pst-Dec.
‘Minsu had boiled and eaten Ramyeon, and he baked and ate meat again.’

- e. *Seojun-ika Bibimbab-ul mek-ess-ko,*
 Seojun-Nom Bibimbap-Acc eat-Pst-and,
tto umlyoswu-lul masi-ess-ta.
 again beverage-Acc drink-Pst-Dec.
 ‘Seojun had eaten Bibimbap, and he drank a beverage again.’
- f. *Yejin-ika bwul-ul kku-ko, tasi ilki-lul ssu-ess-ta.*
 Yejin-Nom a light-Acc turn off-and, again a diary-lul write-Pst-Dec.
 ‘Yejin turned off a light and wrote a diary.’
- g. *Sojeong-ika sanchayk-ul hako, salad-lul mek-ess-ta.*
 Sojeong-Nom a walk-Acc do-and, salad-Acc eat-Pst-Dec.
 ‘Sojeong took a walk and ate salad.’
- h. *Minseong-ika meli-lul calu-ko, tto moca-lul ssu-ess-ta.*
 Minseong-Nom hair-Acc cut-and, again a hat wear-Pst-Dec.
 ‘Minseong had his hair cut and again wore a hat.’
- i. *Sugyung-ika mantwu-lul kacye-wass-ko,*
 Sugyung-Nom dumpling-Acc bring-Pst-and,
tasi kamca-lul salm-ass-ta.
 again potato-Acc boil-Pst-Dec.
 ‘Sugyung brought a dumpling, and she boiled a potato again.’

j. *Sehui-ka son-ul ssis-ess-ko, tasi ppang-ul mandul-ess-ta.*

Sehui-Nom hands-Acc wash-Pst-and, again bread-Acc make-pst-Dec.

‘Sehui washed hands and baked bread.’

k. *Rahui-ka kkoch-ul sass-ko, tasi pyenci-lul ssu-ess-ta.*

Rahui-Nom flower-Acc buy-Pst-and, again letter-Acc write-Pst-Dec.

‘Rahui bought a flower, and she wrote a letter again.’

l. *Susan-i chayk-ul poksa-hass-ko, tasi ku chak-ul ilk-ess-ta.*

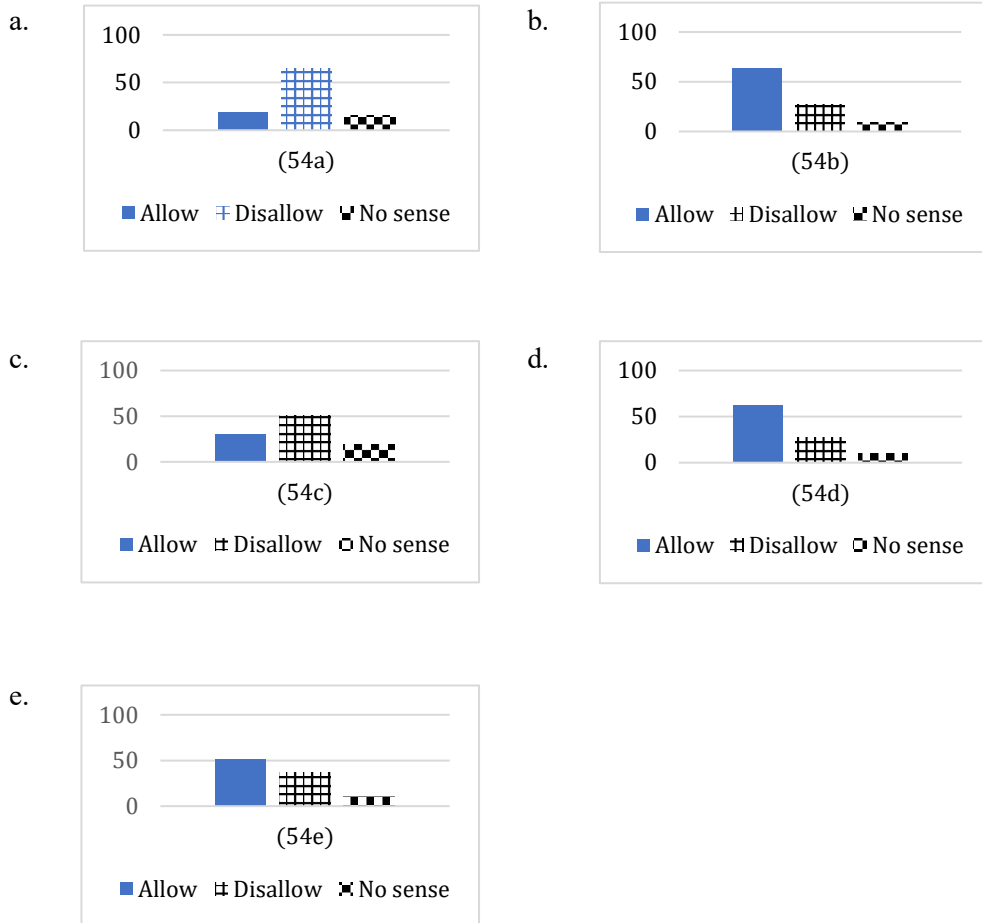
Susan-Nom book-Acc copy-Pst-and, again the book-Acc read-Pst-Dec.

‘Susan copied the book and again Susan read the book.’

3.1.2. Survey Results

Most participants responded that the pseudo-repetitive and purpose-repetitive sentences were not interpreted as the sequential reading. According to the proposal of Lee (2017), all sentences in (54a) to (54e) should have the pseudo-repetitive reading since the predicates are under the hyponymic relation. Contrary to the expectation, however, the participants responded that the sentence does not allow the sequential reading. In the graphs below, the answers of participants to these items are shown.

(55) Responses to pseudo-repetitive readings ((54a) ~ (54e))



Surprisingly, sentences in (54a) and (54c) did not allow the sequential reading whereas (54b) and (54d) did allow this reading. Comparing the two sentences in (54a) and (54c) with sentence (54b), I observed that the objects are distinguished in the formers while identical in the latter. I will focus on this difference. Based on this fact, I argue that the hyponymic predicates are not sufficient to allow for the sequential reading of *tasi* and there should be another condition for the object. Regarding the sentences in (54d) and (54e), the availability of “Corrective usage” will be discussed

in Chapter 4. This means that both sentences are allowed within the context that ‘the prior event (eating something) had not been satisfying’. I will discuss this further in Chapter 4.

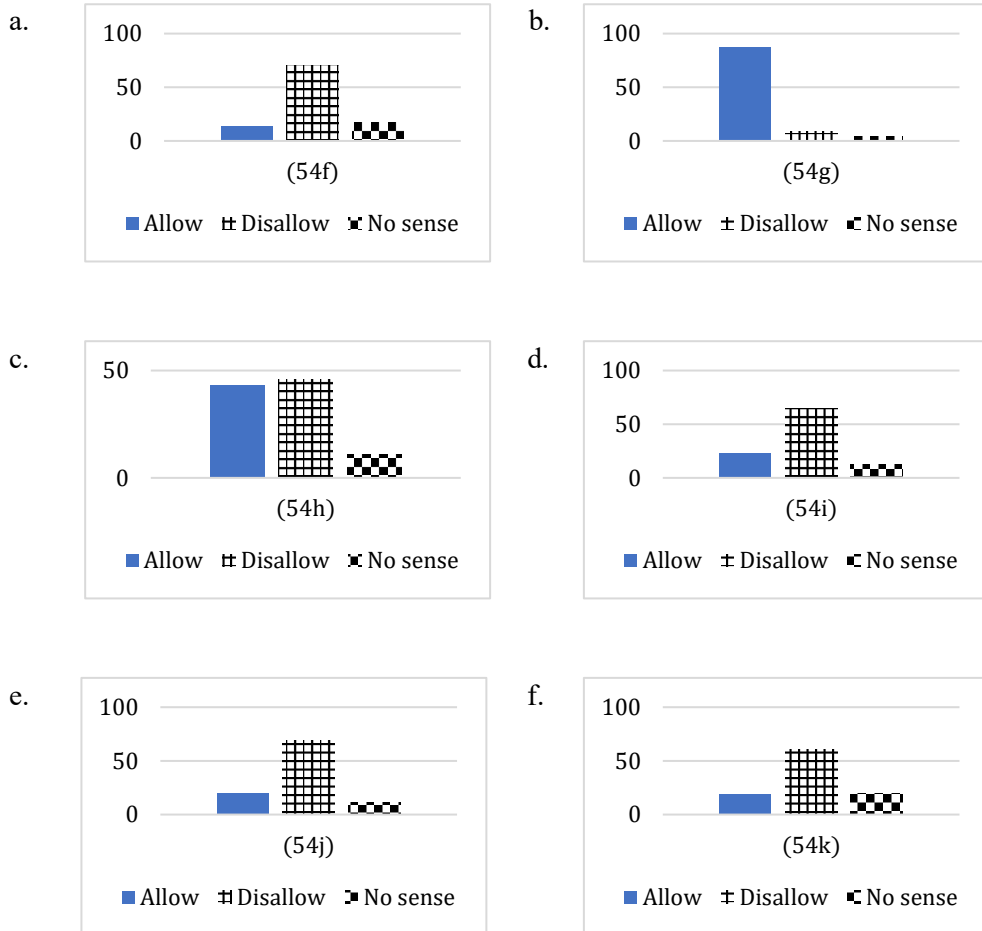
Similarly, based on Lee (2018), it is predicted that the purpose-repetitive reading should be permitted in the sentence in (54f) to (54k).⁹ However, most participants answered all of these sentences, except the sentences in (54g) and (54h), were not interpreted as the sequential reading. In (54g), I did not add any adverb, but two events were linked with ‘and then’. In (54h), ‘tto’ was used instead of *tasi*. The adverb ‘and then’, denoting the sequence of events, can easily have the sequential reading. The responses of these items are summarized in (56). Even though the events in (54k), ‘*buying a flower*’ and ‘*writing a letter*’, have the same purpose (to celebrate a family anniversary, for example), the participants did not accept the sequential reading (the purpose-repetitive reading of Lee (2018)).

⁹ I set these six sentences to share a common purpose. The purpose is not defined in Lee (2018) so all the sentences in my survey can share a purpose. I display the purposes repeated in each item below.

(1) Purposes repeated

- a. (55f) “to write a diary.”
- b. (55g) “to lose weight.”
- c. (55h) “to look neat and nice.”
- d. (55i) “to feed his child.”
- e. (55j) “to bake a loaf of bread.”
- f. (55k) “to celebrate an anniversary.”

(56) Responses to purpose-repetitive reading



The sentences in (54f), (54i), (54j), and (54k) showed too low response proportion for the sequential reading. Contrary to them, the sentences in (54g) and (54h) showed high acceptability of the sequential reading. The ‘and then’ reading in (54g) had 87% respondents and the ‘tto’ reading in (54h) had 43% respondents for sequential reading. The sequential reading of *tasi* in (54b) had a 64% response rates, which is an intermediate proportion of the ‘and then’ reading and the ‘tto’ reading.

What is noticeable in the result is that a majority of participants (64%) had the sequential reading in the sentence in (54b). I take this result to mean that the pseudo-repetitive reading and purpose-repetitive reading in Lee (2018) are not the same as sequential reading. Furthermore, it seems that there are some restrictions of the sequential reading of *tasi*. First, consider the direct object. The sentence in (54l) has the same objects ‘book’ in two events: *Susan-i chayk-ul poksa-hass-ko, tasi ku chayk-ul ilk-ess-ta* (Susan had copied a book and read the book again). However, for the sentence in (54l), 58% of participants answered that this sentence did not have the sequential reading. Thus, it seems that the identical object in clauses is necessary but not sufficient to permit the sequential reading. Second, consider the relation between predicates. The results in (55) shows that the hyponymy between predicates is not sufficient condition. However, the sequential reading is available for the sentence in (54b) where the direct objects are same, and two predicates lie under the hyponymy. Taken together, this can suggest that there are two necessary conditions to license the sequential reading:

(57) **Two Conditions for Sequential Reading of *Tasi***

- (a) First, the objects of the preceding clause and the clause with *tasi* should be *identical*. (to be revised in Chapter 4)
- (b) Second, the predicates should be the *hyponyms* of a predicate.

Thus, the sentence (54l), where the condition (a) is satisfied but not (b), did not allow the sequential reading. Likewise, the sentences which satisfies the condition (b) but not (a) did not have the sequential reading, as described in (55). Only the sentence

(54b) allows the sequential reading, satisfying both conditions of the sequential reading of *tasi* in Korean.

3.2. Proposal: Sequential reading of *Tasi*

3.2.1. Syntactic Condition: The Repetition of Causation

Template

Marantz (1988: 261) (see also Bobaljik, 2015) introduces the concept of Morphological Merger. The Chi-Mwi:ni sentence in (59) shows how this morphological merge operates. The causative affix *-ish* - combines with its argument, a VP headed by *-big* -. In (59b), the affix *-ish* - takes its argument a VP headed by *-big* -. Following the principle of merger, the relationship between the causative affix *-ish* - and its argument VP is replaced by the attachment of *-ish* - to the lexical head *-big* -. This leads to the phonological structure depicted in (59c). The use of morphological merger is necessary to address the bracketing paradoxes that arise between the semantic, syntactic, and morphological levels on one hand, and the phonological level on the other.

(58) Morphological Merger (Marantz, 1988):

At any level of syntactic analysis (d-structure, s-structure, phonological structure), a relation between X and Y may be replaced by (expressed by) the affixation of the lexical head of X to the lexical head of Y.

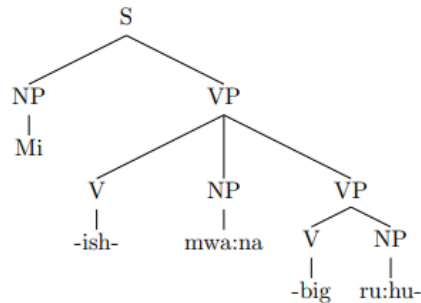
(59) a. *Mi ni-m-big-ish-ize mwa:na re:hu-y-e.*

I sp-op-hit-cause-t/a child self

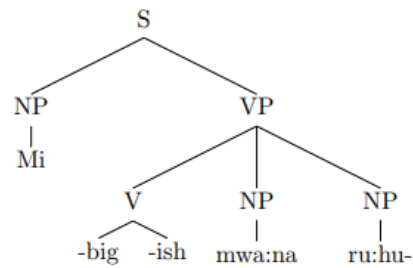
‘I made the child hit himself.’

(sp, subject prefix; op, object prefix; t/a, tense/aspect)

b.



c.

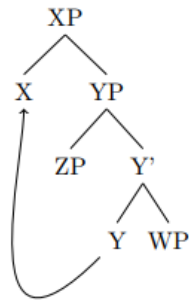


In Distributed Morphology (DM) (suggested in Halle and Marantz, 1993), the syntactic operations are applied to category-neutral Roots, which contain semantic features. The traditional lexicon is substituted with syntactic atoms, namely Roots and Feature bundles. This pre-syntactic morphological operation is totally syntactic opaque. Within the framework of DM, Matushansky (2006) incorporates the concept of morphological merger and suggests that phrasal movement and head movement are essentially the same. The only distinction lies in the trigger of the operation: Agree for phrasal movement and c(ategorial)-selection for head movement. In other words, head movement is determined by c-selection, just as c-

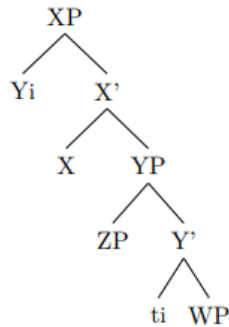
selection is complemented by a feature through head movement. Furthermore, the idea that phrasal movement is driven by Agree is not new. Consequently, there is only one type of movement: feature valuation followed by (Re)Merge, as proposed by Matushansky (2006).

According to Matushansky' analysis, head movement involves a specific operation called M-merger, in which the probe and the goal of head movement interact. Similar to phrasal movement, head movement also targets the specifier position of the probe's landing site. Subsequently, the M-merger morphological operation occurs, resulting in the adjoined placement of the moved element in an adjacent head position. The structure depicted below illustrates the process from (60b) to (60c), which corresponds to the M-merger operation. Therefore, the head movement is composed of three operations: C-Select, Merge, and M-merger.

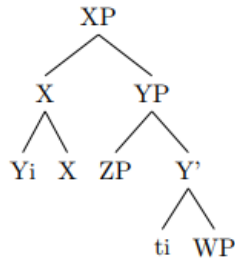
(60) a. Head-to-Head Movement



b. Moved into Specifier position of XP



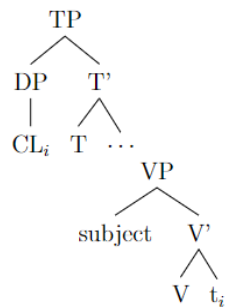
c. M-merger



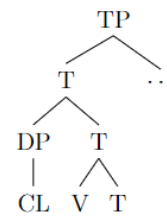
Furthermore, she claims that M-merger can take place independently of head movement. I will first present M-merger in conjunction with head movement, followed by the case where M-merger operates independently of head movement. In Romance languages, it is well-established that unstressed objects cliticize to a tensed verb. It is assumed that clitics are pronominal DPs moved from an argument position. It is proposed that these clitics are pronominal DPs that undergo movement from an

argument position. The maximal projection, represented by the clitic, can undergo M-merger since there are no intervening nodes between two heads: the clitic in [Spec,TP] and the derived T + V head (illustrated in (61)). This process results in the desired cliticization form observed in Romance languages.

(61) a. Romance clitics (simplified)

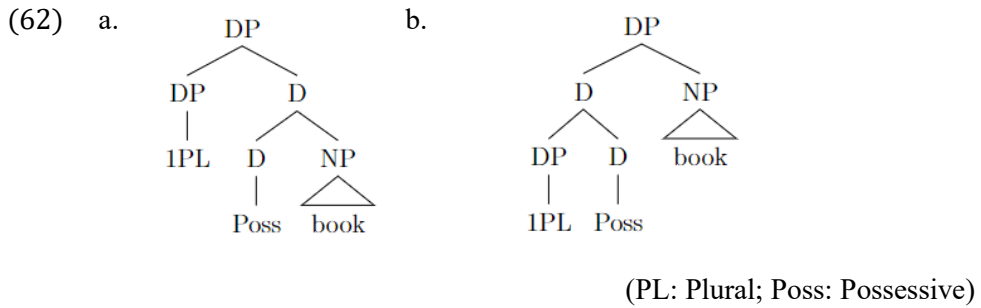


b. M-merger



(CL: clitic)

The second case we consider is whether the Merger from the numeration can occur (External Merge, or just Merge) rather than the movement (Internal Merge, or (Re)Merge). Saxon genitives provides a proper example. The possessor DP is located in [Spec, DP] and the genitive ‘s occupies the head of DP. In the configuration in (61a), the adjacency between DP (a head at the same time) and the genitive head D permits M-merger. Then we get the structure in (62b).



It should be noted that M-merger is a morphological operation, and its internal syntactic structure is opaque (Marantz, 1988; Embick and Noyer, 2001; Matushansky, 2006). M-merger and pre-syntactic operations share many similarities, including the feature bundling. Therefore, the morphological operation of M-merger is not transparent to syntactic operations.

I propose that the structure of the sequential reading of *tasi* can be also resolved by employing M-merger. The core of my proposal lies in the idea that the sequential reading of *tasi* involves the repetition of the causation template, including the object but excluding the Manner Root. According to Harley and Folli (2020), in Satellite-framed languages (S-languages) like English, head movement to check the *uRes* feature on little *v* is not required. Instead, the Manner Root is introduced and combined with little *v* through ‘Manner Incorporation’ (Harley 2005).¹⁰ In other

¹⁰ In Harley and Folli (2020), based on Talmy’s typology (Talmy 1985, 2000), the distinction between Satellite-framed language (S-language) and Verb-framed language (V-language) functions as head movement parameter. In V-language like Italian, since the result of a change of state should be expressed on verb, *Res-to-v* head movement is mandatory. It means in Italian a verb has *uRes** feature and it needs to be checked before Spell-out. On the other hand, in S-language like English, the result can be expressed in the associates such as prepositions and suffixes, stranded from a verb. In English, the boat can float into the cave in the sentence below. However, in Italian, an adjunct is needed to express the manner of ‘floating’. The sentences in (i) have the structures in (ii), respectively.

words, an adverbial Root denoting a manner of motion is adjoined to v' adjunct position and subsequently to little v , resulting in the formation of a manner verb (Embick 2010). As described below, a light verb denoting CAUSE is modified by the Root (manner).

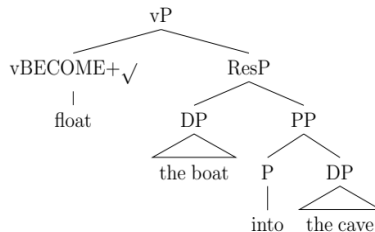
(63) He CAUSE (by floating) the boat into the cave.

‘He floated the boat into the cave.’

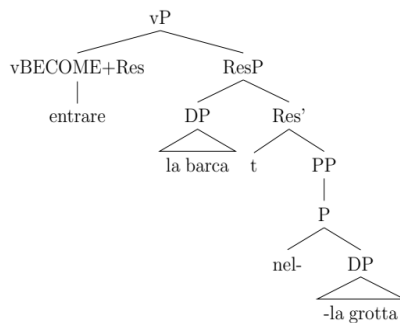
(Harley and Folli 2020)

Following Harley (2005) and Harley and Folli (2020), this thesis argues that Korean also exhibits an S-language property even though it is conventionally classified as a

i. a. The boat floated into the cave. (English)



ii. b. La barca entró nella grotta. (The boat entered in the cave) (Italian)



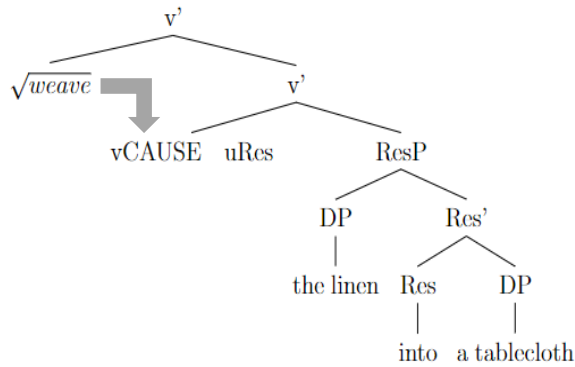
V-language.¹¹ Specifically, Korean verbs, which do not have a result root, derive its lexical content through Manner Incorporation. Manner Incorporation is facilitated by M-merger: an adverb Root denoting manner is introduced into vP from Numeration, which is called E-merger. Subsequently, this Root undergoes head adjunction into little v head through M-merger. Similar to the case of Saxon genitives, it is observed that elements can be derived E-merger, and M-merger can take place independently of head movement. For instance, in English, the phrase ‘to weave the linen into a tablecloth’ can be represented by the structure depicted in (64). In this structure, $\sqrt{\text{weave}}$ is adjoined to v' by E-merger and ultimately to $v\text{CAUSE}$ by M-merger, resulting in a manner verb.

¹¹ According to Lee (2018), Korean can be classified as Equipollently-framed language (E-language) in that it allows serial verb construction (SVC). Talmy (1985) considers Korean as Verb-framed language (V-language) because verbs with path information function as a main verb. However, Korean shows different properties from other typical V-language. In Korean, when it describes a movement event, deictic verbs is a main verb instead of path verbs, similar to E-language proposed in Slobin (2004). Thus, in Korean, a movement event is expressed with serial verbs rather than a combination of path, manner, and movement.

- i. a. **Korean**
 Ku sonye-ka cip-ey ttwie tule ka-ss-ta. (*ttwie tul-ess-ta).
 Figure Ground Manner Path Deixis
- b. **English**
 The girl ran into the house.
 Figure Manner Path Ground

As described in (ia), deictic verbs have a significant role in a movement event in that the action of movement can be described with SVC but not with only a simple verb like “walk” and “run”. This is similar to a representative E-language, Thailand. Therefore, it is not settled, yet, whether Korean is V-language or E-language.

(64)



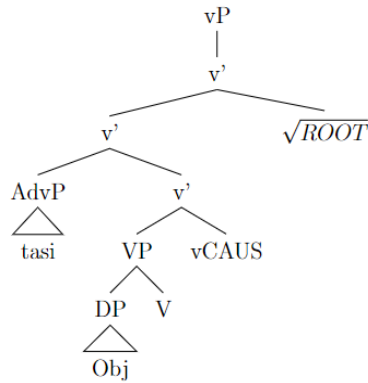
I argue that the sequential reading of *tasi* can be analyzed through this operation. The sequential reading occurs when two clauses share a common object but possess different Manner Roots, as shown in (65). This property can be accounted for structurally by postulating the adjoinment of *tasi* into little *v* prior to Manner Incorporation. Then, the scope modified by *tasi* is *vCAUSE* including an object (referred to as the causation template in my terminology). In (66a), the introduction of the Root through E-merger is illustrated, while (66b) describes the application of M-merger.

(65) (=4)

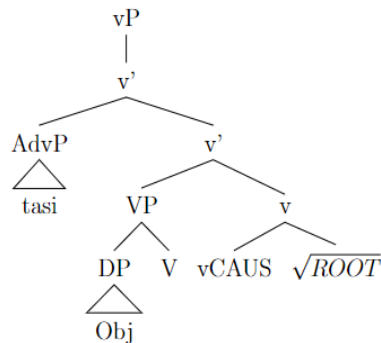
Tom-i ku kamca-lul kwu-wess-ko, tasi ku kamca-lul twiki-ess-ta.

‘Tom baked the potato, and he fried the potato again.’

(66) a.



b.



In simpler terms, for the sentence with *tasi* to convey the sequential meaning, the two clauses must share the causation template. Specifically, *tasi* is adjoined to the function “CAUSE” and modifies both CAUSE and its complement, the direct object. Therefore, *tasi* repeats the “Causation template” in the sequential reading. It is important to note that only the causation template is repeated, excluding the Manner Root. Then, the verbal Root, which is base generated as an adjunct of little *v* by E-merge, is adjoined to the head of vP (v^0) after the advP (*tasi*) adjunction by M-merger.

According to Beaver and Koontz-Garboden (2020), in English, cooking verbs like ‘boil’ and ‘fry’ may seem to have both a manner root and a result root. The question at hand is whether these two roots are realized in separate projections. Specifically, the main concern is whether a verb can possess both a manner root and

a result root. Beaver and Koontz-Garboden argue that, based on root decomposition, a verb does not have distinct manner and result roots. Cooking verbs expressing manner cannot convey a restitutive reading when combined with *again*, which clearly indicates the absence of a result root for this type of verb. According to their analysis, a restitutive reading may be possible for degree achievement verbs such as ‘cool’ and ‘poach,’ but only when a strong contextual cue is provided, as shown in (67). However, in general, it is difficult for manner of cooking verbs to exhibit a restitutive reading when used with *again*.

- (67) [John had previously cooled the soup down to 100 degrees by putting ice in it, after which he used a burner to maintain that temperature. He then put ice in it again to cool it down some more.] John cooled the soup again.

(Beaver and Koontz-Garboden 2020)

In the case of the verb ‘cool,’ the root that denotes a result state is not located in the verbal projection. Only the Manner Root is introduced into little *v* through Manner Incorporation, so there is no result state to which the restitutive ‘again’ can be adjoined. Following this argument of Beaver and Koontz-Garboden, I also propose that manner of cooking verbs in Korean do not incorporate a result state, and thus the restitutive reading of *tasi* with these verbs is not available. The sentence in (68) lacks the restitutive interpretation. Based on this observation, I contend that Korean manner of cooking verbs, like English manner of cooking verbs, do not possess a result root.

(68) [Context: Mother wanted the meat to be baked again]

#*Emma-ka koki-lul kwu-wess-ko, tasi ku koki-lul kwu-wess-ta.*

Mother-Nom meat-Acc bake-Pst-and, again the meat bake-Pst-Dec.

Mother had baked meat and baked the meat again.

According to the manner and result complementarity proposed by Beaver and Koontz-Garboden (2020), a verb in a language does not express both a manner root and a result root separately. Instead, a verb can only have one root, either a manner root or a result root.¹² In Korean, causative change-of-state verbs like ‘open’ have a result root but lack a manner root. To satisfy the uRes feature on little *v*, the result root in the VP (equivalent to Result Phrase) moves to *v'* and subsequently to little *v* through M-merger. On the other hand, manner verbs like ‘fry’ do not have a result root in the VP, which means there is no head movement (Res-to-*v*). Instead, E-merger introduces a manner adverb root such as ‘frying’, and this root is adjoined to little *v* through M-merger. For manner verbs, it denotes a manner of an action, thus there are a core event and a manner of the event. Consequently, there exists a temporal point where the manner adverb root is positioned higher than *v*CAUSE. Then, the little *v*CAUSE, including the core event root¹³ (\sqrt{cook}), and the direct object are modified by *tasi*. Therefore, when *tasi* is adjoined to the causation

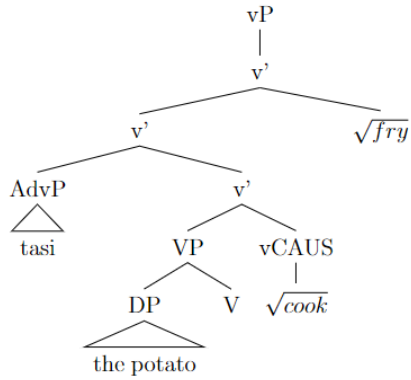
¹² According to Embick (2020), roots are under the influence of categorization restriction. It means Roots should be given a category by combining with little *v*. The important point is that little *v* can assign a category to only one Root. Therefore, Roots cannot remain in the sister position of little *v* and should be assigned a category by little *v* though M-merger. Then, the manner and result complementarity is clearly explained by M-merger.

¹³ The core root of event denotes the root with the core property of the event. Manner verbs indicate the manner of an event. Thus, there are the core event root and the manner root separately. The core event root is implicated on verbal projection. *Tasi* modifies this core root of event and its complement in the sequential reading.

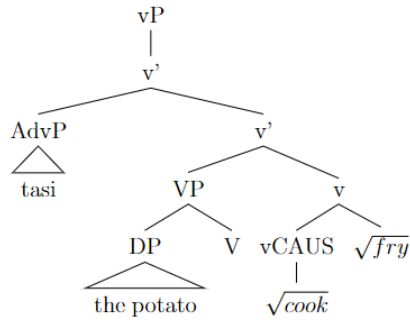
template, it triggers the sequential reading. The example of the sequential reading in (4) can be represented by the structure outlined in (69). If M-merger is applied to the structure in (69a), it leads to the structure depicted in (69b).

(69) 'Tom baked the potato and again he fried the potato.'

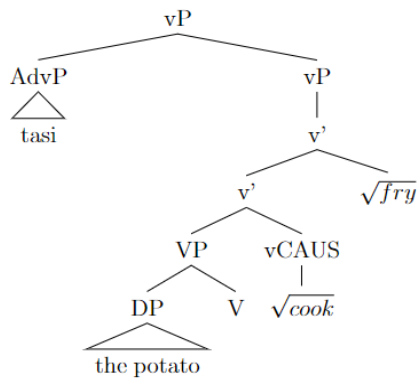
a. Structure of Sequential Reading



b. M-merger



c. Structure of Repetitive Reading



The structure in (69c) demonstrates the structure of the repetitive reading case of ‘Tom fried the potato again’. Compared to the sequential reading in (69a), *tasi* in the repetitive reading modifies all of the Manner Root, *v*CAUSE with the main root, and the direct object in the higher position.

Then, I can predict that verbs which have an explicit result root are unlikely to have the sequential reading, such as ‘open’.¹⁴ Under Vendler’s aspectual taxonomy of verbs (1967), verbs of accomplishments and achievements, like ‘collapse’ and ‘melt,’ are categorized as change-of-state verbs, and they inherently involve the resultative construction. This implies that these verbs contain a result root in a Result Phrase. Consequently, when combined with *tasi*, it becomes challenging for these verbs to convey the sequential reading. In the sentence in (70), the restitutive reading is possible because there is a clear result state to return to. However, the sequential reading that I am proposing is not achieved in this case.

(70) *Jenny-ka elum-ul elli-ess-ko, tasi ku elum-ul noki-ess-ta.*

Jenny-Nom ice-Acc freeze-Pst-and, again the ice-Acc melt-Pst-Dec.

‘Jenny had frozen an ice and melted it again.’

¹⁴ It should be noted that every case where two events are described cannot help bearing a temporal connection/precedence. The sentence in (i) can have the sequential reading as well as the restitutive reading. However, in this paper, I only consider the case with verbs that do not have a result root. If a sentence does not allow a restitutive reading because of the absence of a result state but does have a reading which does not repeat the whole event, this reading is called the sequential reading. In this case, *tasi* relates two events that share a property of events.

i. *Cheolswu-ka mwun-ul tad-ass-ko, Yeonghui-ka tasi ku mwun-ul yel-ess-ta.*
 ‘Cheolswu had closed a door, and Yeonghui opened it again.’

On the other hand, it is generally observed that activity verbs do not involve a result state but rather take the functional verbal projection v_{DO} . For the activity verbs such as ‘run’ and ‘swim’, therefore, tend to lend themselves more readily to the sequential reading of *tasi* in comparison to result verbs. Even though the sentence provided in (71) primarily conveys a repetitive reading, it can also exhibit the sequential reading of *tasi*.

- (71) *Sujeong-ika 500 mite-lul talli-ess-ko,*
 Sujeong-Nom 500 meter-Acc run-Pst-and,
tasi 1000 mite-lul talli-ess-ta.
 again 1000 meter-Acc run-Pst-Dec.
 ‘Sujeong had run 500 meter and run 1000 meter again.’

In summary, the repetitive reading of *tasi* involves the adjoinment of *tasi* above the vP , leading to the repetition of the entire vP and the complete event. Conversely, in the sequential reading, the $advP$ is adjoined as an adjunct to the v' projection below the Manner Root. As a result, what is repeated is the causation that encompasses the functional projection v_{CAUSE} and the direct object, while excluding the repetition of the manner Root. Significantly, this implies that the sequential reading necessitates the presence of the same objects in both clauses, as discussed in detail in Chapter 4.

3.2.2. Semantic Condition: Co-Hyponymy

However, it should be noted that the conditions of repeating the causation template and having the same object in both clauses are not sufficient to achieve the sequential reading. This can be observed in the example provided in (23a) (repeated in (72)), where even though the two clauses share the object "the book," participants interpreted the sentence as conveying a purely repetitive reading.

(72) *Susan-i chayk-ul poksa-hass-ko,*
Susan-Nom book-Acc copy-Pst-and,
tasi ku chayk-ul ilk-ess-ta.
again the book-Acc read-Pst-Dec.

‘Susan copied a book and again Susan read the book.’

Moreover, it is important to note that not all sentences with temporal precedence can be interpreted as having the sequential reading. Contrary to the claim made by Ryu (2018) that any two consecutive events connected with *tasi* can be understood as sequential, this is not the case. As demonstrated in (73a), when the events are completely distinct and unrelated, the sequential reading is not feasible. In contrast, a sentence like (73b) exhibits two events that share a common cooking property. From this observation, it is concluded that for the sequential reading to occur, the two events must possess a shared property.

- (73) a. #*Mikwuk-eyse cicin-i ilena-ss-ko*,
 USA-Loc Earthquake-Nom occur-Pst-and,
Tom-i tasi kamca-lul kwu-wess-ta.
 Tom-Nom again potato bake-Pst-Dec.
 ‘Earthquake had occurred in USA, and Tom baked a potato again.’
- b. *Susan-i kamca-lul thwiki-ess-ko*,
 Susan-Nom potato-Acc fry-Pst-and,
Tom-i tasi ku kamca-lul kwu-wess-ta.
 Tom-Nom again the potato-Acc bake-Pst-Dec.
 ‘Susan had fried a potato, and Tom baked the potato again.’

As a result, I propose that the sequential reading requires a semantic condition: (Co-)Hyponymy between the two predicates. In general, the adverb *again* operates on a property of events and triggers the repetition of events possessing that property. The adverb expresses a relationship between a property of events and an event. It presupposes the existence of a previous event that possesses the property and asserts that the property holds true for the current event (Beck and Johnson, 2004). An interpretation of *again* is provided in (74), drawing inspiration from von Stechow (1996) and Beck and Johnson (2004).

(74) **Let P be the property of eventualities and let e be an eventuality.**

$$\begin{aligned} [[\text{again}]](P_{\langle i, t \rangle})(e) &= 1 \text{ iff } P(e) \ \& \ \exists e' [e' < e \ \& \ P(e')] \\ &= 0 \text{ iff } \neg P(e) \ \& \ \exists e' [e' < e \ \& \ P(e')] \\ &\text{undefined otherwise} \end{aligned}$$

Tasi is identical to *again*. When the antecedent clause describes an event, the subsequent clause should also describe the same type of event and be connected using sequential *tasi*. Within the structural approach, the scope of *tasi* determines which property of events is repeated, consequently influencing the meaning of it. In the case of the repetitive reading, every property of the event is repeated. For the restitutive reading, the property of the result state is repeated. And for the sequential reading, only the kind of event is repeated. The repetition of the kind of event refers to the causation template in syntactic terms, as discussed in the previous subsection. In other words, kind repetition involves the repetition of the core action while excluding the manner. The structure depicted in (69) illustrates how this mechanism operates. The little *v* is within the scope of *tasi*, which possesses a syntactic causative function and semantically signifies the concept of cooking. In conclusion, *tasi* repeats the causation template in a syntactic sense and the kind of event in a semantic sense.

In the sequential reading, two events share a fundamental property while having distinct manners of events. I argue that these two events can be categorized as co-hyponymy. To be specific, if the manners of two events belong to a common type of event, then these events can be considered as co-hyponyms. To exemplify this concept, let's consider sentence (69) where the manners 'baking' and 'frying' both

share the fundamental property of 'cooking', indicating their co-hyponymic relationship. The manner itself can be expressed through a standalone manner root or a manner adverb. For instance, in sentence (75), the preceding clause describes the event of 'Hani had washed pants by hand', which serves as the co-hyponym of the subsequent clause 'Hani washed pants in the washing machine'. In this case, the two events share the property of 'washing pants', while employing different manners — either by hand or by utilizing the washing machine. As a result, these two events demonstrate the repetition of the CAUSE function on a syntactic level and exhibit co-hyponymy on a semantic level. Hence, the sentence in question possesses a sequential reading, contrasting with the sentence in (72).

(75) *Hani-ka paci-lul son-ulo ppal-ko,*

Hani-Nom pants-Acc hands-Ins wash-and,

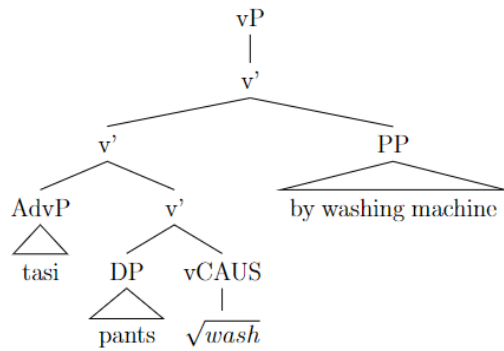
tasi ku paci-lul setakki-ey tolli-ess-ta.

again the pants-Acc washing machine-Ins wash-Pst-Dec.

‘Hani washed pants by hands and again washed the pants by washing machine.’

Based on the analysis of Lee (2017), the relationship between the antecedent clause and the clause with *tasi* can be formalized as in (76). The syntactic structure is illustrated in (76d).

- (76) a. $P = \lambda e. wash_e(pants) \wedge manner(e) = \text{by washing machine}$
 b. $P_{co-hyper} = \lambda e. wash_e(pants) \wedge manner(e) = \text{hands}$
 c. The co-hyponymic reading of '(Hani - ka) tasi_{seq} ku paci - lul setakki - e tolli - ess - ta'
- $$= \lambda e. wash_e(pants) \wedge man(e) = \text{the washing machine \&}$$
- $$\exists e'[e' < e \& wash_{e'}(pants) \wedge man(e) = \text{hands}]$$
- d. The structure of (80)



In this specific case, even though the washing machine was operated only once, the usage of *tasi* is still applicable. The sentence in (75) does not primarily convey a repetitive reading but instead allows for a sequential reading. It satisfies the necessary conditions for such interpretation, which involve the repetition of causation and the kind of event. As revealed through the survey conducted in subsection 3.1, it was observed that a sentence fulfilling only the (co-)hyponymy condition is insufficient to achieve the sequential reading. Therefore, both the syntactic requirement proposed in section 3.3.1 and the semantic requirement must be met in order to attain a sequential reading.

To achieve a sequential reading with *tasi* in a sentence, it is crucial for the events to share a common property or belong to the same event category. This is

closely tied to the relationship between the manners associated with the events. The identification of event type identity depends on the presence of co-hyponymy among the events, which is resolved by the manner roots.

3.3. Crosslinguistic Variations

In this subsection, the focus will be on investigating the occurrence of sequential reading of the word *again* in various languages, namely English, German, and Japanese. Each of these languages exhibits semantic ambiguity in the interpretation of ‘again,’ ‘wieder,’ and ‘mata’ regarding both repetitive and restitutive meanings. To address the primary objective of this research, let us examine sample sentences from each language presented in (77).

(77) [Context: Tom had never fried the potato before.]

a. English

Tom had baked a potato and fried it **again**.

b. German

*Tom hatte eine Kartoffel gebacken und sie **wieder** gebraten.*

Tom have-Pst a potato bake-Pst and it again fry-Dec.

‘Tom had baked a potato and fried it again.’

c. Japanese

Tomu-wa jagaimo-o yaiteta, sore-o mata age mashita.

Tom-Nom a potato-Acc bake-Pst-Perf it-Acc again fry-Pst.

‘Tom had baked a potato and fried it again.’

(Pst-Perf: past perfect tense)

According to native speakers of each language, an interesting observation is that English, German, and Japanese do not allow the sequential reading of ‘again’ (or its counterparts ‘wieder’ and ‘mata’), unlike Korean. In other words, in these languages, when considering a context where Tom had never fried the potato, the usage of ‘again’ (or ‘wieder’ and ‘mata’) is not applicable. This implies that in these languages, an adverb cannot directly modify the little *v* head. Instead, it can be attached to the *v*P or SC as previous research has shown. This distinction can be attributed to the differing density of the *v*P layer across these languages, particularly between Korean and the other three languages. In Japanese, however, scrambling is highly permitted as similar to Korean. It should be studied further in future why Japanese does not allow the sequential reading of ‘mata’. Consequently, Korean permits the insertion of *tasi* into the little *v* head, while other languages do not exhibit this phenomenon.

3.4. Summary

In this chapter, I proposed that *tasi* in Korean is ambiguous between repetitive, restitutive, and sequential reading. The sequential reading of *tasi* pertains to the occurrence of two events in a sequential manner. Through the survey

conducted in section 3.1, it was demonstrated that only two sentences with *tasi* obtained the sequential reading, while the others did not (see items in (55)). This outcome contradicted the expectations of the lexicalist approach proposed in Chapter 2, which posited that all items in the survey should have exhibited a sequential reading. Consequently, two conditions for the sequential reading were introduced within the structural approach.

First, *tasi* in the sequential reading repeats the causation template including the object, thereby necessitating that both clauses contain the same object and the same little *v* type. For manner verbs, following the principle of manner and result complementarity (Beaver and Koontz-Garboden, 2020), the VP lacks a result root that denotes the result state. Thus, *tasi* is adjoined to the function CAUSE, and the manner root is introduced into little *v* through Manner Incorporation. As a result, *tasi* modifies only the direct object and CAUSE with the core property of event, but not the Manner Root. The previous lexicalist analyses failed to capture this structural requirement for an identical object and the repetition of causation, which are crucial aspects of the sequential reading of *tasi*.

However, having identical objects alone is not sufficient to enable a sentence to possess a sequential reading. Hence, the presence of another condition is necessary. The second condition states that two events linked by *tasi* should share a common property pertaining to the kind of events. Not all consecutive events can facilitate a sequential reading. Instead, in the sequential reading, the two events linked by *tasi* should exhibit a similar kind of event, such as ‘cooking’ or ‘washing.’ This aspect is pertinent to the syntactic condition as the little *v* head, which represents the primary property of the event, are within the scope of *tasi*. It is suggested that

co-hyponymy between predicates plays a crucial role in establishing this kind of identicalness.

In Chapter 4, the focus will shift towards examining the interpretation of *tasi* when used in conjunction with creation and consumption verbs. These specific verb types introduce distinctive features that give rise to a novel reading of *tasi*: the corrective reading. The subsequent chapter will investigate a detailed exploration of this corrective reading.

Chapter 4. Corrective Implication of *Tasi*

In the previous chapter, I investigated the sequential reading of *tasi*. Especially, it was highlighted that manner verbs are more likely to elicit the sequential reading compared to result verbs. Consumption and creation verbs are exemplary types of verbs that take a singular object noun as their complement. This implies that they do not possess the result state. Consequently, according to my main proposal, it is anticipated that consumption and creation verbs would allow for the repetitive reading and the sequential reading of *tasi* while lacking the restitutive reading. Since consumption and creation verbs take little v_{DO} , the primary interpretation that arises is the repetitive reading, while the sequential reading is not necessarily excluded. However, interestingly, when consumption and creation verbs are combined with *tasi*, a particular usage of *tasi* seems to be derived in both the repetitive reading and the sequential reading. The following examples illustrate the combination of consumption/creation verbs with *tasi*:

(78) *Sujin-ika cwungkwukcip-eyse ccacangmyen-ul mek-ess-ko,*

Sujin-Nom Chinese restaurant-Loc Chinese noodle-Acc eat-and,

cip-eyse tasi lamyen-ul mek-ess-ta.

home-Loc again Ramyeon-Acc eat-Pst-Dec.

‘Sujin had eaten Chinese noodle at a Chinese restaurant and again ate Ramyeon at home.’

(79) *Yuna-ka nokthen-ul yencwu-ha-yess-ko,*
 Yuna-Nom Nocturne-Acc play-DO-Pst-and,
tasi talbit-ul yencwu-ha-yess-ta.
 again Clair de lune-Acc play-DO-Pst-Dec.

‘Yona had played Nocturne and again played Clair de lune.’

In the cases presented in (78) and (79), it can be observed that the latter event, such as 'eating Ramyeon' or 'playing Clair de lune', serves to rectify and supplement the preceding event, namely 'eating Jjajangmyeon' or 'playing Nocturne'. In the sentence provided in (78), the initial event of 'eating Jjajangmyeon' was unsatisfactory, leading to the occurrence of another event, 'eating Ramyeon', as a means to compensate for the previous unsatisfying event. The sentence in (79) follows a similar pattern. Yona was not content with her performance of Nocturne, prompting her to rectify this event by playing Clair de lune. Consequently, when combined with consumption and creation verbs, the adverb *tasi* can have the “**Corrective implication**” in both a repetitive reading and a sequential reading.

Interestingly, it is worth noting that in both events, the two direct objects can be different, such as "Nocturne" and "Clair de lune". According to my proposal, in both the repetitive reading and sequential reading of *tasi*, objects are under the scope of *tasi*, requiring their repetition in the events. To address this issue, I will adopt the Late Merger of Lebeaux (1988 and 1991). Following this, adjuncts like manner roots or *tasi* can be adjoined to vP after object shift to [Spec, vP]. However, it remains challenging to determine why consumption and creation verbs allow for such Late Merger.

In this chapter, the main focus of investigation will be on the corrective usage of *tasi*. First, the peculiar aspect of having different objects (such as Nocturne and Clair de lune) despite being connected by *tasi* will be considered. Moreover, the repetitive reading and sequential reading of *tasi* with these specific verb types will be examined. The chapter will discuss consumption verbs in Section 4.1 and creation verbs in Section 4.2.

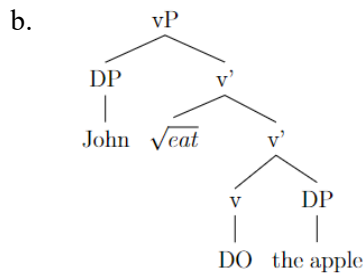
4.1. Consumption Verbs

According to Harley and Folli (2005), consumption verbs exhibit an animacy restriction. Only animate agents are considered acceptable with these verbs, while inanimate causers are not permitted, as illustrated in (80). This suggests that consumption verbs take little v_{DO} instead of little v_{CAUSE} . For example, as shown in (81), the consumption verb ‘to eat’ takes little v_{DO} . When applying Manner Incorporation, the root $\sqrt{\text{eat}}$ is inserted into little v as an adjunct and is adjoined to little v head by M-merger.

- (80) a. John ate the apple.
b. *The apple ate.
c. *Rot ate the apple.

(Harley and Folli 2005)

(81) a. John ate the apple.



Another characteristic of consumption verbs is that they typically take a singular noun as their direct object.¹⁵ It is predicted that these verbs do not allow for the restitutive reading, but rather enable the repetitive reading, given their lack of resultatives and result states. Furthermore, these verbs can have the sequential reading of *tasi*. This will be discussed in this subsection later.

When there are two distinct consumption events, the objects consumed in each event are different. For instance, if someone ate an apple two days ago and then ate a different apple yesterday, the two apples would be distinct. Due to this inherent property of consumption verbs, it is semantically and pragmatically impossible for the objects to be identical in two events. However, in order to be linked with *tasi*, there needs to be a shared kind of object in the events. For example, as depicted in (82), the example demonstrates the repetition of the kind of object (a meal). On the other hand, the example in (83) illustrates that the specific menu can differ, such as "Jjajangmyeon" and "Ramyeon." In this pragmatic sense, it can be implied that the

¹⁵ The class of transitive verbs with Incremental Themes includes consumption verbs (Tenny, 1987; Dowty, 1991). The event becomes telic when the theme object is fully consumed. According to Vendler (1967), consumption verbs can be categorized as Accomplishments. Resultatives also exhibit telicity. Nevertheless, telicity can be achieved through different phenomena, and it is not generated by the final state of an event in the case of consumption verbs. Semantically, consumption verb constructions and resultatives share similarities, but they are syntactically distinct.

prior consumption event was unsatisfactory, as evidenced in both sentences. Consequently, *tasi* produces a corrective implication in such case.

(82) [Context: The meal at Chinese restaurant had been unsavory and distasteful.]

Sujin-ika cwungkwukcip-eyse pap-ul mek-ess-ko,

Sujin-Nom Chinese restaurant-Loc meal-Acc eat-and,

cip-eyse tasi pap-ul mek-ess-ta.

home-Loc again meal-Acc eat-Pst-Dec.

‘Sujin had eaten a meal at a Chinese restaurant and again ate another meal at home.’

(83) [Context: The Chinese noodle had been unsavory and distasteful.]

Sujin-ika cwungkwukcip-eyse ccacangmyen-ul mek-ess-ko,

Sujin-Nom Chinese restaurant-Loc Chinese noodle-Acc eat-and,

cip-eyse tasi lamyen-ul mek-ess-ta.

home-Loc again Ramyeon-Acc eat-Pst-Dec.

‘Sujin had eaten Chinese noodle at a Chinese restaurant and again ate Ramyeon at home.’

Therefore, it is natural to assume the contextual implication that the prior consumption event was unpleasant and unsatisfying. Accordingly, another consumption event takes place to compensate for and rectify the previous unsatisfactory consumption. In the corrective usage, the objects can be indefinite, as shown in (82). It is worth noting that the two objects are distinct. The sentence can

also be rephrased, as demonstrated in (83), where the two objects differ, such as "Jjajangmyeon" and "Ramyeon." However, if the two objects are made identical, the sentence becomes semantically unacceptable, as illustrated in (84).

(84) */# *Sujin-ika cwungkwukcip-eyse ccacangmyen-ul mek-ess-ko,*

Sujin-Nom Chinese restaurant-Loc Chinese noodle-Acc eat-and,

cip-eyse tasi ku ccacangmeyn-ul mek-ess-ta.

home-Loc again Chinese noodle -Acc eat-Pst-Dec.

‘Sujin had eaten Chinese noodle at a Chinese restaurant and again ate the Chinese noodle at home.’

The unacceptability can be attributed to the fact that consuming two perfectly identical objects is not possible. Therefore, in the corrective usage, the objects should possess distinct properties while sharing the same kind or type. In the sentences presented in (82) and (83), the action of "having a meal" and the kind of theme objects are repeated. If the kind of objects is not shared, the sentence becomes semantically or syntactically awkward.

(85) # *Yoona-ka mwul-ul masi-ess-ko, tasi sakwa-lul mek-ess-ta.*

Yoona-Nom water-Acc drink-Pst-and, again apple-Acc eat-Pst-Dec.

‘Yoona drank a cup of water and again Yoona ate an apple.’

According to the survey I conducted, 65.7% participants (46 participants) responded that this sentence could not be read as a sequential reading. This is due to the different

types of themes involved, where the prior theme pertains to food and the latter theme pertains to beverages. In order for the sentence in (85) to be considered acceptable, it must convey a repetitive reading, indicating the repeated action of "eating an apple" which was temporarily interrupted to drink water. However, it should be noted that a simple consumption verb takes functional verbal projection little v_{DO} . As a consequence, such verbs primarily lend themselves to a repetitive reading rather than a sequential reading, even when the sentences involve themes of the same type. Regarding their semantic and pragmatic properties, the complete repetition of the entire event proves challenging in the absence of any context.

In this paragraph, I discuss the cases of the sequential reading and the repetitive reading of *tasi* with consumption verbs. In serial verb constructions, consumption verbs take a similar syntactic configuration with manner verbs, and *tasi* allows the sequential reading in this case. (See Ko and Sohn 2015 for details about serial verb constructions.) However, the observation that consumption verbs requires distinct objects in two events presents an unexpected result based on the analysis proposed in Chapter 3. To address this puzzle, I turn to the concept of Late Merger, suggested by Lebeaux (1988 and 1991). According to Late Merger, manner roots and adverbs, which serve as adjuncts, are introduced into the v' adjunct position after narrow syntax (object shift) has taken place.¹⁶ In the repetitive reading, the same

¹⁶ Here, I discuss the representative case of consumption verbs combined with little v_{CAUSE} , which evoke the sequential reading. In the sequential reading involving consumption verbs, it is possible for two predicates to be distinct, as proposed in Chapter 3. Technically, the manner in which the actions are performed can differ. For example, consider the sentence in (i). The structure for this sentence is presented in (ii).

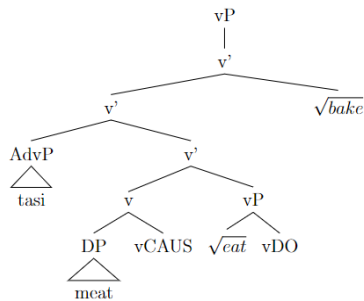
- i. [Context: the Ramyeon was unsavory and distasteful.]
Sujin-ika lamyen-ul kkulh-i-e mek-ess-ko,
 Sujin-Nom Ramyeon-Acc boil-CAUSE-LK eat-Pst-and

problem can be resolved with Late Merger. In this case, the whole event is repeated, but not the object.¹⁷

In conclusion, when combined with consumption verbs, the adverb *tasi* can be interpreted in two ways: as conveying either a repetitive reading or a sequential reading. The repetitive reading occurs when the entire event, including the manner

tasi koki-lul kwu-we mek-ess-ta.
again meat-Acc bake-LK eat-Pst-Dec.

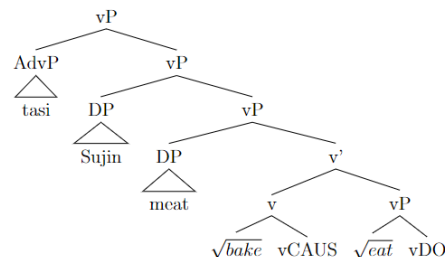
ii. Structure of the sequential reading



The object ‘meat’ moves to [Spec, vP] for the case licensing, and the Manner Root (\sqrt{bake} , here) is inserted as an adjunct. Then, only the action of ‘eating something’ is in the scope of *tasi*. Then, I can conclude that the requirement of predicate identicalness demands the objects share the kind. Furthermore, the pragmatic features of consumption verbs make a sentence have the corrective usage.

¹⁷ An example of the repetitive reading with consumption verbs is in (i).

i. *Tasi Sujin-ika koki-lul kwu-we mek-ess-ta.*
again Sujin-Nom meat-Acc bake-LK eat-Pst-Dec.
‘Sujin baked meat and ate it again.’



In this case, the direct object is also moved to [Spec, v]. Similarly, employing Late Merger, the adverb *tasi* is introduced in [Spec, v] below the moved object. As a result, the object falls outside the scope of *tasi*, and the entire event, without the direct object, is repeated.

of action, is repeated, and *tasi* is adjoined to the vP. On the other hand, the sequential reading occurs when the head property of the event (CAUSE) is repeated, excluding the manner of action, and *tasi* is adjoined to the v' projection as an adjunct. Regardless of whether it is interpreted with a repetitive or sequential reading, interestingly, *tasi* introduces a corrective implication. In both interpretations, the objects can be different but must share the same kind or type. This restriction is imposed because the core event (such as "eating" or "drinking") is repeated, while the themes related to this core event are constrained. Furthermore, the emergence of the corrective usage is influenced by pragmatic implications.

4.2. Creation Verbs

Creation verbs exhibit a similar distribution pattern to consumption verbs. The sentence in (79), which was previously discussed and repeated in (86), demonstrates the corrective usage of *tasi* when combined with creation verbs.

(86) a. [Context: The previous play was not good and unpleasant.]

Yoona-ka nokthen-ul yencwuha-yess-ko,

Yoona-Nom Nocturne-Acc play-Pst-and,

tasi dalbit-ul yencwuha-yess-ta.

again Clair de lune-Acc play-Pst-Dec.

‘Yoona had played Nocturne and played Clair de lune again.’

b. [Context: The previous play was not good and unpleasant.]

Yoona-ka piano-lul yencwuha-yess-ko,

Yoona-Nom piano-Acc play-Pst-and,

tasi piano-lul yencwuha-yess-ta.

again piano-Acc play-Pst-Dec.

‘Yoona had played piano and played the piano again.’

In the case of creation verbs, while indefinite objects may sound slightly more awkward than definite objects, both cases are still acceptable. Similar to consumption verbs, it is noticeable that the two theme objects created cannot be identical. For instance, even when an agent plays the same music twice, the two piano performances are considered different. Similarly, when Yoona played Nocturne twice, it implies that two distinct pieces of Nocturne were played. In this context, it is natural to assume that the prior play had been unsatisfying, as mentioned earlier in (94).

Creation verbs allow the different predicates to be linked with *tasi*. For example, the sentence in (87a) demonstrates that *chi-ta* ‘play the piano’ is used in the antecedent clause and *yencwuha-ta* ‘play the piano’ is used in the latter clause. Similarly, the sentence in (87b) allows for two different predicates *kye-ta* ‘play the violin’ and *chi-ta* ‘play the piano’.

(87) a. *Yoona-ka nokthen-ul chi-ko,*

Yoona-Nom Nocturne-Acc play-Pst-and,

tasi dalbit-ul yencwuha-yess-ta.

again Clair de lune-Acc play-Pst-Dec.

‘Yoona had played Nocturne and played Clair de lune again.’

b. *Yoona-ka vaiolin-ul kye-ss-ko, tasi piano-lul chi-ess-ta.*

Yoona-Nom violin-Acc play-and, again piano-Acc play-Pst-Dec.

‘Yoona had played the violin and played the piano again.’

Both sentences indeed allow for the sequential reading of *tasi*. For instance, in the case of the sentence in (87b), it can be used with the context "Yoona had not played the piano before." This implies that, similar to consumption verbs, creation verbs can also exhibit the sequential reading of *tasi* with correction implication. With respect to the semantic and pragmatic properties of these verb types, they can give rise to the corrective usage, similar to consumption verbs.¹⁸ Consequently, creation verbs

¹⁸ A clear example of the sequential reading of *tasi* with creation verbs is presented in (ia), where the manner adverbs differ in the two events. As demonstrated earlier, in the sequential reading, *tasi* is adjoined below the Manner Root, which can be accurately depicted in the structure depicted in (ib).

- i. a. *Sujin-ika nokthen-ul ppalukey yencwuha-yess-ko,*
Sujin-Nom Nocturne-Acc fast play-Pst-and,
tasi nokthen-ul nulikey yencwuha-yess-ta.
again Nocturne-Acc slowly play-Pst-Dec.
‘Sujin had played Nocturne fast and played it again slowly.’

also have both the repetitive and sequential reading. Semantic and pragmatic features of these verbs make *tasi* bear the corrective usage in both readings.

One remaining question is that I proposed two conditions for the sequential reading of *tasi* in Chapter 3. The first condition says that the objects in two events (clauses) should be identical. This should be revised in terms of consumption and creation verbs. Thus, I can propose the revised version of conditions for the sequential reading.

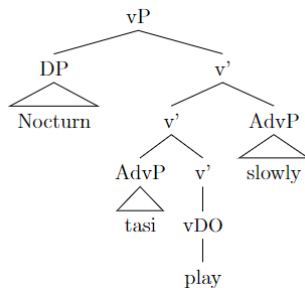
(88) **Two Conditions for the Sequential Reading of *tasi* in Korean**

(a) First, the objects of the preceding clause and the clause with *tasi* should be *identical*,

(a') but regarding consumption and creation verbs, they should be distinct for Late Merger.

(b) Second, the predicates should be in the *hyponyms* of a predicate.

b. Structure of the sentence in (ia)



4.3. Summary

In Chapter 4, I analyzed the corrective implication of *tasi* when it is used with consumption and creation verbs. Two types of verbs do not have the resultative structure and it takes a single object noun as their complement. Thus, they do not allow the restitutive reading but allow the repetitive reading and sequential reading of *tasi*. The main point of Chapter 4 is that pragmatic and semantic implication of consumption and creation verbs leads a sentence to have corrective implication of *tasi*. The problem is that *tasi* allows objects to be distinguished if it is used with consumption and creation verbs. To resolve this problem, I suggested Late Merger of Lebeaux (1988 and 1991). Then, under Late Merger, two adjuncts (*tasi* and manner roots) can be adjoined as the adjunct position of *vP* after object movement to [Spec, *vP*]. However, it should be studied further why consumption and creation verbs require a strict Late Merger.

Chapter 5. Conclusion and Implication

This research was initiated based on the observation that Korean has an additional reading of the adverb *tasi* beyond its repetitive and restitutive readings. The problem sentence in (4), repeated below in (89), does not involve the repetition of the entire event or the result state. Rather, it describes two consecutive events. Ultimately, I proposed a structural and syntactic analysis for the sequential reading of *tasi* in Korean with two specific conditions.

(89) [Context: Tom had never fried the potato before.]

Tom-i kamca-lul kwu-wess-ko,

Tom-Nom potato-Acc bake-Pst-and,

tasi ku kamca-lul twiki-ess-ta.

again the potato-Acc fry-Pst-Dec.

‘Tom baked the potato, and he fried the potato again.’

(Lee 2017)

This sequential reading has been studied within a lexicalist approach (Lee, 2017; Lee, 2018; Ryu 2018, etc.). However, as suggested by the survey I conducted, pseudo-repetitive reading (Lee, 2017) and purpose-repetitive reading (Lee, 2018) are not interpreted as the sequential reading of *tasi*. Furthermore, the survey suggested that objects and predicates are significant factors for the sequential reading.

First, it is essential that two events linked by the sequential *tasi* share a common object. It is worth noting that the sequential reading of *tasi* allows for the

distinction of two predicates. Based on this observation, I proposed that the sequential usage of *tasi* can be viewed as an adjunct to the causation template. This proposal draws on the concepts of M-merger by Matushansky (2006) and Manner Incorporation by Harley and Folli (2020). In this context, the causation template refers to the little *v* head (CAUSE) and its associated constituents. The key point to consider is that the sequential usage of *tasi* is adjoined to the little *v* head, while the Manner Root remains outside the scope of *tasi*. Consequently, a prediction can be made that result verbs are likely to have difficulty conveying the sequential reading.

However, it is important to note that the mere presence of identical objects is not enough to convey the sequential reading. Therefore, I introduced a second condition: in order to have a sequential reading with *tasi*, the two events should belong to the same type or category. Semantically, events connected by *tasi* and *again* should share certain event-related properties. The specific property that is repeated determines the interpretation of *tasi*. In my proposal, I suggested that the repetition lies in the type of events being performed in the sequential reading. The adverb is attached to the little *v* with the core property of the event, such as cooking or washing. Meanwhile, the Manner Roots represent specific manners or ways of performing the core event, and these two manner roots are related in a hyponymic relationship.

However, there is a challenge to this theory when it comes to consumption and creation verbs. These verbs typically take a single noun as their complement or object. Despite this, they clearly allow for a sequential reading with *tasi*, and their semantic implications suggest a corrective interpretation. Interestingly, even though the objects are connected by *tasi*, they need to be distinguished. This can be

explained by the phenomena of Object Shift and Late Merger, as proposed by Lebeaux (1988 and 1991), where the Manner Root (predicate) and *tasi* are introduced into an adjunct position of the little *v* head after the objects have been shifted to [Spec, *v*P] to receive Case licensing. As a result, the object and manner root are outside the scope of *tasi*. However, it remains an open question as to why the objects cannot be modified by *tasi* with consumption and creation verbs. Consequently, the first condition needs to be revised specifically for consumption and creation verbs: with consumption and creation verbs, the objects in the two events can (and in fact must) be distinct.

Despite this unresolved issue, this paper presents an important implication by offering a structural analysis for the sequential reading of *tasi*. I argued that it is the structural scope of an adverb, rather than its lexical properties, that gives rise to its ambiguity. I proposed a specific structure for the sequential reading of *tasi*. Furthermore, I highlighted the limitations of lexicalist analyses in accounting for the sequential reading. In particular, Lee (2017) suggests that predicates in a sisterhood relationship are required for the sequential reading, but I argued that this condition alone is not sufficient. This thesis, on the other hand, identifies the primary structural requirement for achieving the sequential reading. Thus, both syntactic and semantic conditions must be satisfied to achieve this interpretation. Additionally, this thesis suggests an additional possible adjunction position for adverbs. While traditionally *v*P, SC, or [Spec, *v*P] have been considered as potential adjunction positions for adverbs, I propose that the little *v* head can also serve as a possible adjunction position for adverbs.

Indeed, in order to gain a comprehensive understanding of the sequential reading and the adjunction of adverbs to the little *v* head, it is necessary to conduct crosslinguistic research beyond Korean, Japanese, English, and German. Exploring other languages and their unique linguistic characteristics can provide valuable insights into these phenomena. Additionally, within the Korean language itself, further research is needed to investigate the differences between verb types, such as *tasi*, ‘tto,’ and ‘tolo.’ Examining these distinctions will contribute to a deeper understanding of how sequential readings are expressed in Korean and shed light on the specific properties and constraints associated with each verb type.

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한국어 부사 ‘다시’의 연속적 해석에 대한 새로운 시각: 구조적 접근을 통해

본 논문은 한국어 부사 ‘다시’의 중의성에 대해 논의해 보았다. 부사 ‘다시’는 전체 사건을 반복하는 반복적 해석과 결과 상태만을 반복하는 복원적 해석 사이에서 중의성을 가진다고 그동안 여겨져 왔다. 해당 연구는 이 부사가 반복적 해석과 복원적 해석 이외에 “연속적 해석”이 가능하다는 점에 주목한다. 그동안 해당 부사의 중의성에 대해 크게 어휘주의적 접근과 구조적 접근을 통한 분석이 진행되었다. 어휘주의적 접근은 부사의 중의성은 그 단어의 다의어적 특징에 의한 것이며, 즉 두 가지의 의미구조를 가지고 있기 때문이라고 주장한다. 반면에, 구조적 접근은 해당 어휘가 반복적 해석만을 가지되 구조적으로 어느 부분을 수식하는지에 따라 중의성이 야기되는 것이라고 주장한다. Little vP 에 붙어 전체 사건을 수식하는 경우에는 반복적 해석을 가지지만, 결과 상태를 나타내는 결과절에 붙게 되면 복원적 해석을 가진다는 것이 주요 주장이다. 두 접근의 상대적 우위성은 Word Order Fact 에 의해 확실히 드러난다. 이는 독일어를 비롯한 영어와 한국어에서 특정한 구조적 환경에서 해당 부사의 중의성이 사라지는 현상을 가리킨다. 어휘주의적 접근은 이러한 구조적 차이에 의한 중의성에 대해 설명이 불가능하지만, 구조적 접근은 이에 대한 정확하고 합리적인 설명을 내세운다. 이러한 사실에 근거하여, 해당 연구에서 역시 구조적 접근을 통해 ‘다시’의 중의성과 연속적 해석에 대해 분석을 한다.

‘다시’의 연속적 해석이란, ‘다시’가 상호 독립적으로 보이는 두 사건이 연속적으로 일어난 것을 묘사하는 경우를 말한다. 하지만 두

사건은 완전히 독립적이지 못하고 일정한 규칙과 원칙 내에서 서로 공유하는 것이 반드시 필요해 보인다. 이는 해당 연구에서 진행한 설문 조사에 따라 구체화되었으며, 이를 통해 내릴 수 있는 연속적 해석을 위한 필수 조건은 다음과 같았다. (추후 (1)번 조건은 부분적으로 구체화된다.)

- (1) 두 사건은 반드시 동일한 목적어를 공유하고 있어야만 한다.
- (2) 두 사건은 반드시 같은 상위어를 공유하는 동등 하위어 관계에 있어야만 한다.

해당 연구에서는 두 조건을 설명하기 위해 “구조적 인과 관계의 반복”과 “사건 유형의 반복”을 주장하였다. “인과 관계의 반복”은 부사 ‘다시’가 인과 관계를 나타내는 little v 를 수식하여 목적어를 포함한 인과 관계 템플릿을 반복할 때 가능해진다. 여기서 중요한 점은, 해당 구조 속에서 사건의 방식을 나타내는 루트는 부사의 수식 범위에서 제외되기 때문에 연속적 해석에서 두 사건 속 구체적 술어가 달라질 수 있다는 점을 타당하게 설명했다는 점이다. 이 부분은 Harley and Folli (2020)과 Beaver and Koontz-Garboden (2022)의 주요 주장을 참고해 주요 주장을 펼친다. “사건 유형의 반복”은 사건의 핵심적 의미 루트가 포함된 little v 를 부사가 수식하고 있기 때문에 두 사건의 핵심적 특징은 반복되어야 한다고 주장한다. 사건의 핵심 특징은 공유하되 구체적인 방식은 달라졌기 때문에 두 사건은 하나의 상위 사건을 공유하는 동등 하위 사건이라고 볼 수 있다.

해당 연구에서의 한계점은 소비/창조 동사와 ‘다시’ 부사의 결합에서 등장한다. 해당 동사 부류는 결과절을 내포하고 있지 않기 때문에 반복적 해석과 연속적 해석을 가진다. 하지만, 두 동사 부류의 강한 의미적 함의성에 의해, ‘다시’와 결합되었을 때 이전 사건의 오류와 불만족성을 수정하기 위해 새로운 사건이 일어난 듯한 해석이 가능해 보인다. 이 부분에 대해 ‘다시’가 해당 부류의 동사와 결합할 때 “수정적

함의성”을 가진다고 본다. 본 연구에서는 반복적 해석과 그리고 연속적 해석에서 모두 수정적 함의성이 나타나는 것에 대해 구체적으로 제시한다. 여기서 중요한 점은, 두 동사 부류가 ‘다시’와 결합될 때 목적어가 달라질 수 있으며, 달라져야만 하는 특징을 가진다는 것이다. 이 부분에 대해서는 Lebeaux (1988, 1991) 연구의 ‘Late Merger’ 개념을 참고해, 목적어의 이동이 일어난 이후에 부가어인 부사 ‘다시’와 사건의 방식을 나타내는 루트가 little v 로 도입되었다고 주장함으로써 이 문제를 해결한다. 이러한 주장을 함으로써, 이동한 목적어보다 하위 위치에 도입된 부사 ‘다시’의 수식 범위에는 목적어가 없기 때문에 목적어가 달라질 수 있는 점을 설명할 수 있게 된다. 하지만 여전히 의문인 점은 왜 해당 동사 부류에서만 강하게 Late Merger 를 일으키냐는 점이고 이 부분에 대해서는 향후 추가적 연구가 더욱 필요해 보인다. 이 점을 통해 앞서 주장한 연속적 해석의 필수 조건 (1)번이 다음과 같이 수정될 수 있다.

(1') 소비/창조 동사의 경우에는 ‘Late Merger’에 의해 목적어가 반드시 달라져야만 한다.

해당 연구는 기존에 활발히 논의되지 못했던 한국어 부사 ‘다시’의 연속적 해석에 대한 구조적 분석을 제공한다는 점에서 큰 의의를 가진다. 해당 해석이 가능하기 위해 통사적으로 그리고 의미적으로 필요한 조건을 구체적으로 제안하며, 이는 기존에 진행된 어휘주의적 접근보다 더욱 심도 있고 정확하게 연속적 해석을 분석할 수 있도록 해준다. 또한, 언어학에서 부사의 수식 범위는 주로 절 전체나 부가어 아래 부분이었던 반면 해당 연구에서는 little v head 라는 새로운 수식 범위를 제안한다는 점에서 의의가 크다.

주요어 : 한국어 부사 ‘다시’의 중의성, 한국어 부사 ‘다시’의 연속적 해석, 인과 관계의 반복, 사건 유형의 반복, 한국어 부사 ‘다시’의 수정적 함의성

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